

Industrial Design Special Project

Jugaad - a Study in Indian Vernacular Design

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APPROVAL SHEET

The Product Design Special Project titled “Jugaad- A study in Indian Vernacular Design” by Sanjay Nair, o8613002 is approved as a partial fulfillment of the requirements for Post Graduate Degree in Industrial Design.

Project Guide

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Abstract

There are situations when solving a problem may not be easy or possible by conventional means or in a formal way. It may be due to lack of resources or due to a time constraint. At such times overlooking the problem or waiting for the perfect solution to arrive may not be the answer. It has to be done by any means, calling for out of the box thinking and going outside the existing way of doing things. These kind of situations happen more often in our country. The way we solve such problems known by the word 'Jugaad'. Jugaad is a essentially a colloquial word in Hindi meaning an eclectic assembly that somehow works.

What does Jugaad exactly mean?How is Jugaad and design related? Is Jugaad an innovation? Is Jugaad a healthy culture?Can Jugaad be classified into different types? Can there be a guideline for different types of Jugaad? The objective of my study was to find answer to these questions.

Introduction

I started my research on this topic through literature study. One observation made was that though the word 'Jugaad' was used very widely, not much has been documented on the same. Some amount of information was scattered over the internet, mostly by individuals expressing their views about the subject and there was no elaborate research as such. To understand more about the topic I undertook field trips to places where I could find examples of 'Jugaad', but there were many instances where I encountered Jugaad in my daily life. I also interacted with people, both from design and non-design background, to understand their perception about jugaad. I realized through my study that Jugaad is omnipresent in our lives; so much so that it has become inconspicuous. My next step was to analyse the data and understand different aspects of Jugaad e.g. similarities/trends/patterns in different types of Jugaad, scope of Jugaad for further implementation etc. to define a direction for the project.

Chapter 1 Jugaad in Indian cultural context

The roots of Jugaad are deeply ingrained in our culture. Following is an excerpt from an interesting article written on Jugaad by Mr. Devdutt Patnaik of The Economic Times (see Annexure).

The author describes how Indians use vrats and upaays to work around any distressing and apparently insurmountable fate. As an example he cites how astrology is supposed to reveal, through the position of stars and planets, the fate of man. If the revealed fate is not favourable, then the astrologer immediately offers a work around — a gemstone, a mantra, a pilgrimage, a prayer or a ritual by which the negative effects of a planet can be overcome.

At a deep cultural core, most Indians believe there is nothing rigid about life. Everything is manageable, solvable, everything has a work around. This powerful cultural construct has its most popular manifestation in the North Indian word jugaad. It is the ability to get things done when the law and the rules do not favour us. You want to fly down to Delhi today, but all tickets are booked — what do you do? Do a jugaad.

According to him we lack foresight and surrender to fate for the big things in life but for the small things, we subscribe to jugaad. We believe in bending fate, but do not believe we can break it.

For others jugaad is proof of ingenuity and creativeness — a demonstration that Indians are not willing to accept fate and are willing to scurry a solution out of any problem. Nothing is insurmountable. If one has the will, there is always a way.[1]

Chapter 2 Definitions of Jugaad

Following are some of the definitions given on the internet for Jugaad:

Jugaad 1: Locally made motor vehicles that are used mostly in small villages as a means of low cost transportation in India (Fig 2.1). Jugaad literally means an arrangement or a work around, which has to be used because of lack of resources.[2]

Jugaad 2: A colloquial Hindi word that can mean an innovative fix, sometimes pejoratively used for solutions that bend rules, or a resource that can be used as such or a person who can solve a vexatious issue. It is used as much for enterprising street mechanics as for political fixers. In essence, it is a tribute to native genius, and lateral thinking. [2]

Jugaad 3: The term Jugaad is a Hindi word meaning an improvisational style of innovation that's driven by scarce resources and attention to a customer's immediate needs, not their lifestyle wants.[3]

Jugaad 4: A colloquial Hindi word that means a resource, source or a connection or a trick to use them, to make your way out when you do not deserve something or which is not fair.[4]

Jugaad 5: It has no direct English translation, but refers to the ability to engineer a solution—mechanical or otherwise—to a problem. Jugaad has now entered mainstream lexicon as the get-it-done ability of Indian companies. [5]



Fig 2.1

Fig 2.1 <http://creatologue.files.wordpress.com/2009/12/jugad.jpg>

Chapter 3 Interpretation of Jugaad outside India

Though Jugaad is an Indian terminology, it is common in places where there is a shortage of resources and will of individual/s to overcome any kind of problem. A search on the internet for such cases in other countries revealed presence of a culture similar to Jugaad in the African continent.

AfriGadget.com is a website which showcases African ingenuity[6]. Some of the products featured on the site are explained below:

Fig 3.1 shows a battery operated reading lamp made of used tin can. This product is available in the streets of Nairobi city. It provides an affordable solution to people who cannot buy a conventional emergency light. It has a handle at the top which can be used for moving around or hanging it somewhere.

Fig 3.2 shows a plastic bottle which is reused as a bird feeder.

Fig 3.3 shows a trailer attached to the bike specially created for transporting cowdung from the point of origin to the digester for producing biogas.



Fig 3.1



Fig 3.2



Fig 3.3

Fig 3.1 <http://www.afrigadget.com/2009/11/08/solution-for-nairobi-blackouts/>
Fig 3.2 <http://www.afrigadget.com/2009/09/23/re-using-plastic-containers-in-kenya/>
Fig 3.3 <http://www.afrigadget.com/wp-content/uploads/2010/07/trailer-filled.jpg>

Chapter 4 People's Perception of Jugaad

To understand Jugaad it was important to understand people's perception about the same. People from design and non-design background were asked about what they understand about Jugaad and following is what they said:

- Readily available product/s combined/used to satisfy a purpose for which that product/s was not originally intended- *Kamlesh Sawant*
- Outcome when there is no readymade solution to solve a problem, and it has to be solved by oneself using any means/available resources- *Vinish J*
- Jugaad means minimum effort, minimum processing and maximum value- *Saurabh Tewari*
- Jugaad is function driven, but elaborate setup where one has a devised processing method or does everything consciously is not Jugaad- *Santosh Nair*
- Jugaad is prolonging life of an existing product by using it for some other purpose- *Gagan Gupta*
- Jugaad is an inexpensive out of the box solution emerging out of a constrained situation- *Vinod Iyengar*

Chapter 5 Jugaad and Innovation

In the book '**From Jugaad to Systematic Innovation**', author Rishikesh T Krishnan argues that Jugaad does not necessarily translate into innovation. Following is an excerpt from the book [7]:

He argues that Innovation is different from creativity. While individuals display creativity, transforming individual creativity into innovation is a social and collective process. Organisations (particularly firms in the industrial context) and social networks constitute the arena where this process happens. He cites the example of organisations like Srishti, National Innovation Foundation (NIF) in this context. Though government policy can provide incentives to overcome some of the barriers to the social process, other barriers that are embedded in the social, cultural, and political fabric are more difficult to overcome. Some of the examples he cites as these barriers are:

- Poor teamwork
- Weak systems and strategic orientation
- Low tolerance towards failure
- Lack of confidence in innovation capabilities coupled with a failure to positively reinforce innovation efforts
- Need for control that comes in the way of joint working with other organizations

The reason why India remains an “uneven innovator” is that it has many such barriers and these are sticky and threaten to persist for years to come. The book concludes by proposing an agenda for India to move from a paradigm of 'Jugaad' or creative improvisation to a systematic approach to innovation.

Chapter 6 Characteristics of Jugaad

My next step was to analyse the data collected through literature, interviews and personal observations. Like a normal product 'Jugaad' also has semantics associated with it that makes it distinct. Following are some of the features that were observed for most of the 'Jugaad's:

- The solution is affordable
- It looks like an unorganized effort and done instantaneously.
- Its a one time solution and may not be repeated
- Uses existing product/s to satisfy a purpose for which they were not originally intended
- Uses available resources to satisfy a purpose

Though most of the jugaads have common features the context in which it occurs can be different.

The most common type of Jugaad happens when the individual/s is aware of his needs, and the solution to the same doesn't exist. Under such circumstances Jugaad is done by making use/modification of existing products/available resources.

Sometimes a product does not completely address the needs of a user. It can be due to mistake or lack of foresight on part of the designer or not understanding how the product will be used. In such cases the individual does 'Jugaad' and finds his own way of fulfilling the need.

For designers (especially product designers) Jugaad is tool that aids them to develop quick mock ups /prototypes for explaining the proof of concept/principle of working . This kind of Jugaad may be also called as 'pseudo jugaad'.

Chapter 7 Examples of Jugaad

This chapter explains the various examples of possible 'Jugaad's. As mentioned earlier, I realized that Jugaad was omnipresent. One just needs to have a good eye for identifying it. Through my camera I tried to capture different Jugaads by travelling to places in and around Mumbai, specially areas like Crawford market, Mohamme Ali Rd etc. As affordability of the solution is one of the major criteria, most of the Jugaads were found amongst people from lower socio-economic backgrounds. The Jugaads observed could be broadly placed under three categories:

- **Transportation:** These kind of Jugaads were observed when objects/ materials were to be moved over short distances and there were no ready solution available for the same
- **Display:** Such Jugaads are common among street vendors/hawkers who have to set up their kiosks in constrained space or have to travel with them. Under such circumstances it becomes imperative for them to use the available space creatively.
- **Utility products:** These are products made by using/assembling affordable existing resources (for purpose other than transportation/display) when direct solutions were not available.

7.1 Transportation

Location: Kanjurmarg Railway Stn, Mumbai.

Date: 21/01/2010

Figs. 7.1 and 7.2 shows a dumper truck which has been retrofitted with rail wheels. The purpose of this arrangement is to have a cheaper alternative to ferry smaller amount of construction materials for railway lines from one point to another. A normal rail engine coupled with a goods wagon would have been the conventional solution for the same.

This solution has some problems e.g. it can't be turned around, visibility problems while taking it reverse. This indicates need to design a vehicle that can be used for such situations.

The vehicle comes under the category of jugaad as an existing product (truck) is used for purpose other than what it is intended for providing an affordable solution.



Fig 7.1



Fig 7.2

Location: Crawford Market, Mumbai

Date: 01/02/2010

Fig 7.3 shows a street vendor selling his wares. For advertising his products he uses a placard which is fitted with a wheel. The person could have used a regular wheel for his application, but chose to use a ball bearing for the same. The ball bearing shown in Fig 7.4 is designed for withstanding higher loads but he has smartly used it for his benefit. This reduced his effort to move with the placard thus making it easier for him to navigate through crowded places.

This is a jugaad as an existing product (ball bearing) has been used in a different context but similar arrangement can be seen with other vendors selling same products.



Fig 7.3



Fig 7.4

Location: Mulund, Mumbai

Date: 08/02/2010

Fig 7.5 shows a person carrying empty oil cans on his head by tying them together with a rope. In this case the weight of the cans is not significant compared to the volume occupied by them. The volume of the cans wouldn't allow them to be transported by conventional cheaper means, for e.g. using public transport like rickshaw, bus etc. and hiring a separate vehicle would mean higher expense.

The Jugaad in this case is finding an affordable solution to the problem of transporting the oil cans from one point to the other using available resources.



Fig 7.5

Location: Paldi, Ahmedabad

Date: 27/12/2009

Fig 7.6 shows how a fruit vendor has reinforced the wheels of his push cart with wooden strips, so that the cart can take more load. The wheels fitted on a push cart are standard, so when he could not afford stronger wheels, he strengthened the existing arrangement by adding wooden strips.

The Jugaad in this case is use of available resources to make the existing wheels strong without having to buy new ones.



Fig 7.6

Location: Near Parel Stn, Mumbai (taken from taxi)

Date: 17/01/2010

Fig 7.7 shows a bicycle which has been modified into a three wheeler and a separate carrier added at the front . The purpose of the modification is not clear in this case as there was photograph was taken while travelling. But it assumed that the modification was done to transport object/s from one point to another over a short distance. There is one time cost of fabricating the vehicle but after that there is not much expense involved as the vehicle is human powered.

The Jugaad in this case is the modification of existing product (cycle) into a three wheeler for transporting objects over short distances affordably.



Fig 7.7

Location: Near Thane railway station

Date: 10/02/2010

Fig 7.8 shows a rag-picker carrying goods on his pull-cart. The pull cart has been fixed with metal sheets on the sides to prevent the contents inside it from falling out. The way it has been fixed on to it seems to have come as an afterthought and not a part of the pull cart originally. The sheets are held together by nails at the bottom and plastic strings at the top and sides. Tension in the plastic Strings prevent the sheets from buckling.

This is a Jugaad as the arrangement is an instantaneous solution in an unorganized manner but at the same time affordable.



Fig 7.8

7.2 Display

Location: Parel Station Flyover, Mumbai

Date: 17/01/2010

Fig 7.9 shows how the vendors have tried to maximize the space available for displaying their goods by making use of the wall behind them. Nails are driven into the wall which are used as hooks to display their products. One vendor has used the wall to display clothes, while other one has used to display clocks and different electronic devices. This is more useful for grabbing the attention of the customer, compared to products which are lying flat stacked on top of each other.

In this case, the Jugaad is making use maximum use of the available space by using minimum resources.



Fig 7.9

Location: Crawford Market, Mumbai

Date: 01/02/2010

Fig 7.10 shows how a fruit vendor has created two levels for his push cart. The top table is used to display the fruit plates while the bottom is used to store the fruits and provide a working space for the vendor. The division in space is done by using bricks. Though this arrangement increased the available space in a very economic way, the bricks would end up increasing the weight of the cart, but is of secondary concern.

In this case also, the Jugaad is making use maximum use of the available space by using minimum resources.



Fig 7.10

Location: Paldi, Ahmedabad (Fig 7.11)/Masjid Station, Mumbai (Fig 7.12)

Date: (27/12/2009)/(01/02/2010)

Fig 7.11 shows a hawker with a stand for selling watches. The stand looks like extension of a conventional hanger. In this case the stand is made by welding together Mild Steel(M.S.) rods to form a no. of rows on which the watches can be hung. This arrangement allows for display of all the watches at same time. The stand has a hook at the top which can be used to hang it somewhere as well as carry it around with him.

Fig 7.12 shown below also has a similar arrangement for displaying the products (hairclips) in a different region. This suggests that there is a common trend amongst vendors for displaying products that are small in size and have a large variety.

The Jugaad in this case is making a product (display stand) using available resources (M.S. rods) when a direct solution was not available.



Fig 7.12



Fig 7.11

Location: Thane Railway Station

Date: 10/02/2010

Fig 7.13 shows another vendor selling watches on the street. Here instead of a hand held display stand, the vendor has a larger cart for displaying the watches. Unlike other standard carts which are purchased and modified later, this cart has been tailormade for the vendor. The cart has individual display stand for each watch, making it easily accessible for the customer. The cart has been designed to keep the contents secure, and can be locked when not in use.

Though this a one time solution, the effort looks more organized here and hence its not a clear case of Jugaad.



Fig 7.13

Location: Near Lohar Chawl, Mumbai

Date: 17/01/2010

Fig 7.14 shows a vendor selling clothes seated on the pipes. In this case he has made use of the height provided by the large pipes for displaying the clothes. The base support for the clothes has been provided by spreading the mattresses that are part of his inventory.

This is a Jugaad in which the space has been utilized in an efficient manner by investing minimum resources.



Fig 7.14

7.3 Utility Products

Location: Hostel-13 Mess, IIT Bombay

Date: 20/02/2010

Fig 7.15 shows a PET bottle for soft drinks which is reused as a soap dispenser by piercing hole on the cap and filling it with soap solution. Conventionally, soap dispensers available in the market would have been used making it expensive to use and refill over the longer run.

This is a Jugaad as the product (PET bottles) is used for a purpose for which it was not originally intended (soap dispenser) and provides an affordable solution.



Fig 7.15

Location: Near K.E.M. Hospital, Parel, Mumbai.

Date: 17/01/2010

Fig 7.16 shows how a vendor used an empty oil can as his dustbin by cutting away its upper half.

Again here this is a jugaad as the oil can has been reused in a context for which it was not originally intended and provides an affordable solution of disposing the waste.



Fig 7.16

Location: Near Masjid Station, Mumbai

Date: 01/02/2010

Fig 7.17 shows the hand spray which is sold loosely without the bottle. The hand spray is to be fixed on to a used PET bottle . A sample bottle was displayed with the hand spray on it.

This is not a clear case of jugaad , as the hand spray is a finished product. But the fact that it is supposed to be fixed onto a used bottle to make a complete product, makes it a Jugaad as the PET bottle is not originally meant for this purpose.



Fig 7.17

Location: Parel Station Flyover, Mumbai

Date: 17/01/2010

Fig 7.18 shows oil lamps made by using empty cans of 'Amul Koko'. The can is used to store the oil while the top portion is modified by fitting a cap and wick on it.

Although it looks like a Jugaad as the can is reused for a different purpose, there is a systematic process for making the lamps. Hence this is not a complete case of Jugaad.



Fig 7.18

Location: Parivar Stores, Powai

Date: 31/01/2010

Fig 7.19 and 7.20 shows how a thread spool and needle were packaged together in a small piece of paper with cello tape. The needle is inserted in the paper to prevent it from getting lost.

This is a jugaad as available resources (used paper) have been used in a very optimized manner to pack the products (thread spool and needle).



Fig 7.19



Fig 7.20

Location: IDC, IIT Bombay

Date: 04/06/2010

Fig 7.21 shows three chairs joined together and used as a bed by the students. Though the width of the chair is not sufficient, the armrests and backrests act as safety barriers that prevents the person sleeping on it from falling off.

This is a case of Jugaad as the chairs are used as bed for which they are not intended.



Fig 7.21

Location: Hostel-13 stores, IIT Bombay

Date: 15/06/2010

Fig 7.22 shows a coffee vending machine, on which one can see a temporary cup stand. The stand has been made by sticking one of the cups outside an empty carton with masking tape and stacking rest of the cups inside it.

Previous to this arrangement the cups were kept on top of the machine and would roll off. The new arrangement had two advantages, mainly preventing the cups from rolling off and making it easier for people to access the cups. This indicates a need for design intervention by providing the facility for stacking and easy access of cups on the machine.

This is a case of Jugaad in which the problem of stacking and accessing the cups has been solved by using minimum resources.



Fig 7.22

Location: KV Grounds, IIT Bombay

Date: 27/01/2010

During 'Techfest' at IIT Bombay the National Disaster Management team had kept a display of products to show how available resources can be converted into life saving products during floods by simple adjustments/modifications.

Fig 7.23-25 shows how the floating property of objects have been used to their benefit to make floatation devices. It can range from empty oil/kerosene cans to empty coconut shells.

This is a case of Jugaad in which available resources have been used to make floatation devices for which they were originally not intended.



Fig 7.23



Fig 7.24



Fig 7.25

Location: Convocation Hall, IIT Bombay

Date: 28/01/2010

Fig 7.26-7.28 shows pictures of robots made by students for a competition during the 'Techfest' at IIT Bombay. The objective here was to make an autonomous robot that would carry cubes located at different points to a central point. As seen in the figures, each team has come up with their own solution for the same.

The robots here are designed purely from functional point, without any thought given to aesthetics. These are Jugaads in which available resources have been used in different ways to satisfy a common purpose.

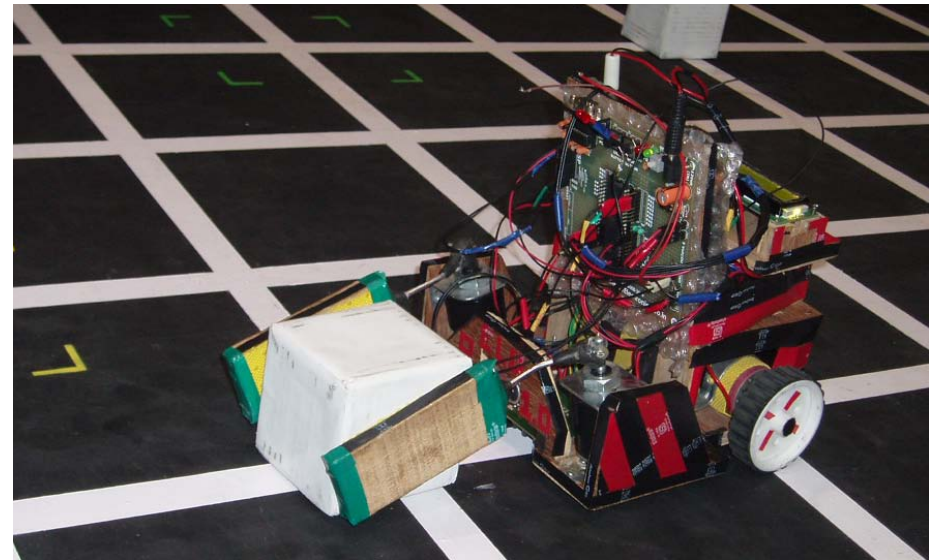


Fig 7.26

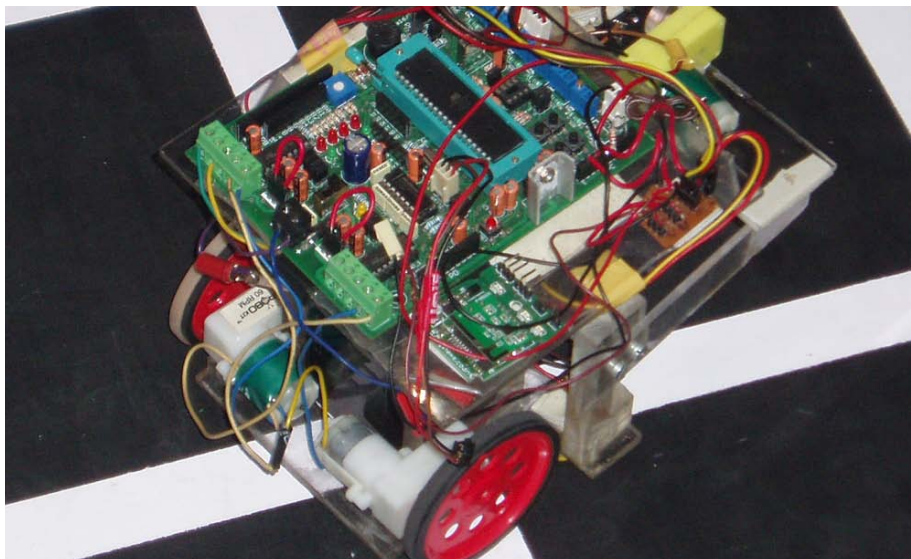


Fig 7.27



Fig 7.28

Chapter 8 Conclusion

Jugaad can be looked at from a micro and macro perspective. The micro perspective looks at different kinds of Jugaad and tries to understand the reasons behind why people do them, whereas the macro perspective involves going deeper and understanding the significance of Jugaad in a broader context. Following are some of the conclusions that can be made from the study on a micro and macro level:

- There can't be a definite guideline for Jugaads but many of them give useful insights and help in identifying areas where there is a need for design intervention. Some involve need for redesigning the existing product, while others may offer opportunities for completely new products.
- A negative factor of Jugaad is that it often results in products that compromise safety for cutting cost. Some of the jugaads end up crossing the line of law but it needs to be understood that such cases are prevalent due to the requirement of population from low socio-economic backgrounds. This is one of the reasons why Jugaad is prevalent in developing countries compared to developed countries.
- By nature Jugaad is sustainable as it reuses existing products/optimizes the use of available resources. From a long term perspective, this seems to be the direction in which we are headed as there will be a time when the earth runs out of its resources and Jugaad will become essential for survival.

Chapter 9 References

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Annexure

THE ECONOMIC TIMES

By hook or by crook

23 May 2008, 0512 hrs IST, Devdutt Pattanaik, TNN

According to Brahmapurāṇa, Kuber, the king of Yakshas, had a gardener called Hema, whose duty it was to gather fresh fragrant flowers every morning with which Kuber performed his daily worship of Shiva. One morning, smitten by desire for his beautiful wife, Hema failed to leave his bed and go to the garden. As a result Kuber did not get the flowers he needed for his worship. Enraged, Kuber cursed Hema that he would be struck with an incurable skin disease and would be separated from his wife forever.

The curse took effect and Kuber's gardener found himself alone and diseased in a faraway land. For years he suffered the curse, feeling there was no way out until one day, he told his story to a sage. Feeling sorry for Hema, the sage advised him to perform a vrat, an observance that involved fasting and praying all day on a particularly auspicious day. "If you observe this vrat with pure devotion, you will be liberated from this curse. Your health will be restored and you will be reunited with your wife."

Religious books are full of vrats, ways by which one can work around any distressing and apparently insurmountable fate. The same thought exists behind the notion of upaay that is popular amongst astrologers. Astrology is supposed to reveal, through the position of stars and planets, the fate of man. If the revealed fate is not favourable, then the astrologer immediately offers a work around — a gemstone, a mantra, a pilgrimage, a prayer or a ritual by which the negative effects of a planet can be overcome.

For centuries, Indians have been exposed to vrats and upaays. Hence, at a deep cultural core, most Indians believe there is nothing rigid about life. Everything is manageable, solvable, everything has a work around. This powerful cultural

construct has its most popular manifestation in the North Indian word jugaad. It is the ability to get things done when the law and the rules do not favour us. You want to fly down to Delhi today, but all tickets are booked — what do you do? Do a jugaad.

You have been shifted to a new city and you want admission for your daughter in the best school in the neighbourhood, but admission time is over. All you have to do is get the man who can get jugaad done and find a way out. A jugaadu is a highly networked person who can weave his way through any system and get things done when the straight and narrow path is blocked.

In the typical Indian way of accommodating everything, we surrender to fate for the big things in life but for the small things, we subscribe to jugaad and vrat and upaay. We believe in bending fate, but do not believe we can break it. That is one reason why Indians are such short-term thinkers, finding it difficult to plan for the distant future (airports for 2020) while finding it easy to find jugaad for the immediate problems (land domestic flights in international airports to handle the air traffic crisis).

For many the existence of jugaad is a testimony that to the fact that systems are inefficient and corrupt. It indicates that Indians have no qualms about bypassing the system to get their way. Put in another way, systems in India may block elephants but there are always narrow gaps to let a rat through. For people who are linear thinkers, this behaviour can be rather disconcerting.

For others jugaad is proof of ingenuity and creativeness — a demonstration that Indians are not willing to accept fate and are willing to scurry a solution out of any problem. Nothing is insurmountable. If one has the will, there is always a way.

So this leads us to the question, does the system construct jugaad or does jugaad construct the system? Are we creative thinkers and therefore refuse to create linear logical systems? Or is it that we find linear systems tedious,

demanding too much discipline and uprightness, hence turn to jugaad? The answer perhaps lies in the emotional nature of Indians that is responsible for both the inefficiency of the system as well as for the effective workarounds.

If you travel across India, you cannot rely on a postal address to find a person's house in a city. Postal addresses are logical — name of the city, the area, the road, the colony, the building, the flat. But Indian cities are not logical. You have to step down from your car and ask the paan-wala for directions. This is also jugaad, albeit a minor form, that allows you to overcome a situation that is not favoured by logic.

If you are in the USA, this may not be possible or even needed. Everything is so well organised with road maps and street signs that there is little need to ask anyone. Today, there are street signs and road maps in India too. But people still prefer asking those around them for directions. This indicates the Indian comfort with people rather than with processes, with private emotions rather than with impersonal logic.

Indians do not split professional and personal behaviour very easily; professional friends over time become personal friends, making it possible to ask for favours and do jugaad. There seems nothing wrong with taking advantage of his role and position. Most of jugaad is not just done through bribing or such financial transactions; it is done through relationships, networks, favours or emotional blackmail. It cannot be reduced to a process.

Comfort with jugaad is the reason why we tolerate and even contribute to inefficiency. Deep down, we don't believe systems work hence don't invest time and resources to building systems. It is perhaps the reason why the service sector is discovering that Indians are not very demanding of customer service. We don't expect things to work through processes — we find innovative personal ways to get things done.

Rather than call up the telephone agency's complaint department which will give standard promises of seven-day solutions, we have greater trust in giving bakshish to the local lineman who will solve the problem in three days.

We have become such compulsive out-of-the-box thinkers that, as we connect with the world at large, we need to train ourselves to be more in-the-box, become more aligned to processes and respect the rigidity of the system.