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Ways of Thinking: Psycholinguistic Reflections on Sino-Indian Relationships and Potentialities

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The emergence of India and China as potential leaders of the 21st century has drawn worldwide attention. Eminent journals have speculated on a scenario when both nations are expected to have overtaken the USA in GNP terms—China by 2030 and India by 2050. The National Intelligence Committee of the United States has further examined the military implications of China's rise and its consequences for world geopolitics. Many books have addressed the theme, predicting all manner of outcomes ranging from dire war to peaceful collaboration. Not to be left behind, popular magazines and newspapers took up the India-China theme, liberally using the term '*Chindia*' coined by Indian Minister of Environment, Jairam Ramesh. Meanwhile, the perceived dichotomies were further enhanced by depicting China as a dragon (in Western terms, menacing) and India as an elephant (wise but lumbering), quite ignoring the meaning of these symbols in their respective cultures.

My acquaintance with China started well before this time, arising from an avid interest in that country

through travel and exploration over the last 15 years. I have no claim to being a scholar or an economist, but often during my travels I pondered over the differences between India and China. Could there exist, I wondered, identifiable ways of thinking that are distinctive to the Indian and Chinese psyches, and if so, what might the implications reveal? Could they throw light on some frequently asked questions like: What explains the Chinese prowess in infrastructure and manufacturing? Will China ever become a democracy? Will China and India be friends?

On a more practical note, reading Ranganathan and Khanna's excellent book¹ reminded me that the 1962 Sino-Indian conflict arose through a disastrous "chain of misperceptions and misunderstandings." This situation seems ominously likely to arise again, given recent events, as neither country appears in the meantime to have invested seriously in endeavours to gain deeper knowledge and understanding of the other, let alone read each others' signals. But, on the positive side, what opportunities does mutual

engagement open for both India and China? And what could the simultaneous rise of these two nations mean for the world?

Despite growing trade ties between India and China—total trade by 2008 was nearly US \$ 52 billion, growing at 50% annually²—the two countries are yet to engage with each other in a meaningful way, either on the economic front, or indeed any other. Investment flows are weak, tourism a mere blip. Until 2007, the only direct flight between Beijing and Delhi was still by Ethiopian Airlines—a service started 4 decades ago! Even this much-hyped trade growth is heavily dependent (nearly 75%) on low-value primary products out of India, while the trade deficit with China is growing. Meanwhile, the rest of the world rushes to exploit the strengths of China as the 'world's factory' and increasingly of advanced technology and R&D. Japan, Korea, Vietnam and Taiwan, are all heavily involved in China. Each still has serious political issues with China, some with a long and bitter history, but these have not held them back from vigorous engagement with a rapidly growing Chinese economy, to mutual benefit.

But, according to the global consultants McKinsey & Co.³, whilst 25% of executives worldwide regard China as their most important growth centre after the USA, only 4% of Indian CEOs share that belief. Similarly, only 2% of Chinese bosses see India as a major growth point. Despite the formidable reputation of Indian as well as Chinese businessmen for seeking out profit anywhere in the world, they seem wary of treading into each other's country. Both governments are cautious; India's much more so. Amongst the citizenry on both sides, a yawning knowledge gap prevails. Whilst active in all other directions, India and China remain *terra incognita* to each other.

This lack of mutual awareness is no longer just an academic weakness. I believe it can be a serious impediment to India's growth, blind us to opportunities and even constitute a vulnerability that leads to conflict. To paraphrase Sunzi, "foreknowledge of the other"—friend or foe—is

vital for any kind of policy formulation. But where does one start? Most accounts to 'explain' China or India rely on economic or political analyses. But might there be more basic factors? After all, both politics and economics are driven by human agency, and what distinguishes humans from animals is the development and use of language and the influence of culture. Can language and culture reveal both the potentialities and the pitfalls of the India-China engagement? This paper searches for possible answers.

A Psycholinguistic Model

Pursuing this train of thought led me to the following simple model, which goes:

Language influences thought and perception

Perception guides behaviour

Collective behaviour creates a culture

Culture creates special competences

Competences influence economic development.

I shall focus here only on the relationships between language and thought (the latter word being used interchangeably with *perception*), and then between culture and development.

Language and Thought

Language is what differentiates man from animal. Whilst many species communicate with each other, only man has developed language, and the ability to learn it, which then became hard-wired in his brain. The inter-relationship between human thought/perception and language has been the subject of much debate in psychology. Early thinkers such as Benjamin Whorf and Edward Sapir⁴ thought of language somewhat like a pair of tram-lines along which thought and perception ran without any deviation, bounded by the rules of that particular language. Others like Chomsky⁵ and Pinker believed that thought was intrinsic to human existence, with a 'universal grammar' serving as a common tool of human expression regardless of whichever language was spoken. Both sides in this debate adduced much evidence from anthropological observations of peoples belonging to different cultures.

Current psycholinguistic thinking, drawing on the latest neuro-psychological research on how the brain processes thought into language, converges broadly on what is known as the 'modified Sapir-Whorf hypothesis'⁶. This holds that there is a highly interactive feedback loop between thought and its expression—i.e. language—and whilst linguistic rules may not be quite the rigid 'tram-lines' as earlier contemplated, the unique characteristics of each language will specify inclinations that predispose thought and perception (e.g. of time and space) in a certain direction. It is rather like loading different operating systems on to a computer. Microsoft or Apple software will all perform the normal functions—e-mail, presentations, photography etc, but each system has its own strengths which make some operations easier, others more problematic. An even better analogy is water running down a hillside—the deepest and steepest channels will carry the most water, though others will have some flow as well, and water can even be forced uphill through the application of sufficient energy. The more dissimilar the languages, the greater their respective speakers vary in their thinking patterns.

Chinese and Sanskrit

Whilst both India and China have a range of languages, the Chinese character script has been common across that country for over two millennia, mediating communication between, say, Mandarin and Cantonese speakers, and thus has played a powerful unifying role in China. India has a greater diversity of languages, but a broad linguistic and cultural base of Sanskrit underlies a majority of these languages. Accordingly, it would be a reasonable first approximation to consider Mandarin and Sanskrit as the root languages of the two civilizations and examine what their differences might imply. With this proviso, let us examine the case of Sanskrit and Mandarin as the root languages of the Indic and Sinic civilizations respectively, and consider the implications of language structure on ways of thinking.

The ideographic and monosyllabic Chinese language has preserved a remarkable continuity through the

centuries. Each Chinese character is understood in the same way all over China, though local languages may pronounce the word differently. This unity of language across time and space has been very powerful as a unifying force, conferring living history and shared identity. One sees this daily in the allusions to classical phrases, poems and history, and in the prevalence of proverbs that pepper everyday speech. The Chinese language has no singular or plural, no tenses, moods or cases. Yet, because of its ideographic nature, each character has great specificity of meaning, which is comprehended as a whole pattern in itself. The abundance of different words for the same concrete things can be quite striking: for example, several words describe the adjective 'old' depending on whether one refers to a person over 60 years of age, or over 70, etc. The word for 'contradiction' is '*mao-shun*' or 'sword/shield'. Mandarin describes things by specification, often based on imagery or analogy, rather than analysis. It has been suggested that the discipline involved in learning to write Chinese characters, (starting from the age of three), with each character written following set rules and with a particular order of strokes, has been instrumental in the meticulous and orderly approach (there is a way of doing things) that the Chinese bring to manufacturing.

As earlier mentioned, that language shapes the way one thinks and vice versa, is now well established in the science of linguistics. Hajime Nakamura, (the eminent Japanese Indologist and Sinologist, whose book '*Ways of Thinking of the Eastern peoples*'⁷ inspires the title of this essay)⁷ believes that the Chinese bias for understanding phenomena through direct perception is a consequence of the concrete and visual nature of the Chinese script. Indeed, modern neurological research reveals that deciphering the ideographic Chinese script is akin to a pattern-recognition problem for the brain. The Chinese character patterns stimulate the right side of the brain, especially the parietal and occipital lobes where such processing takes place. Since speech functions are localized on the brain's left, Chinese thus promotes more holistic utilisation of the brain. The great scientist and inventor of

calculus, Leibnitz, was so struck by the power and economy of Chinese that he remarked: “If God were to give man a language, that language would be Chinese!”

On the other hand, metaphysical speculation and elaborate logic built on language were far more developed in India. Sanskrit as an alphabetic language could not be more different in structure and grammar than Chinese. Nakamura establishes how Sanskrit deals more efficiently with concepts that involve change or transformation, than does Chinese. Sanskrit lends itself to expressing ideas of great complexity through its simple principle of word agglomeration, for example from 'nari' to 'ardhanari' to 'ardhanarisvara' etc. Further, in Sanskrit, the addition of prefixes and suffixes can continue almost without end, and the resulting mega-compound-word/sentence can be split up once again in multiple ways. These exercises introduce interesting complexities and ambiguities in meaning, which can be generated by anyone with time on their hands and gifted with a certain skillful playfulness in manipulating the language. Sanskrit grammarians and poets were adept at such feats: for example, poetry that reads front to back as well as vice versa. Similar capabilities have been recognized in the work done by Indian software geniuses today⁸.

Similarly, in Sanskrit, any noun or adjective can become an abstract noun by adding 'ta' or 'tva.' Together with the general use of the passive voice, and the use of positive-negative combinations ('laabhaalabhau jayaajayau'), Sanskrit thus encouraged abstract and universal thinking, grammar and complex analysis. Not that the Chinese were not capable of complexity, but they were more adept at expressing it through a pictorial idiom. Patterns enable strong expressions of paradox and contradiction. One of the best instances of this is the explanation of the 'I Ching' in hexagrams—powerful in its very simplicity, without any loss of meaning.

Given the unitary nature of Chinese characters and the power of their pattern-recognition mode, it is not surprising that in China, great attention was paid to historical records, precedents and maintenance of annals. In India on the other hand, the development

of a strong tradition of oral history and recitational poetry meant considerable interplay between history, imagination and mythology. Chinese role models are drawn from history. Indian role models are mainly mythological figures. The China-India comparison has many examples of the literal juxtaposed with the metaphoric. Take this story about Confucius. When he was asked by a pupil: “Master, tell us the meaning of death?” his rather curt reply was: “How can we understand death when we still do not understand life?” Contrast this with the story of Nachiketa and Yama in the *Katha Upanishad* when Nachiketa confronts the Lord of Death with the question: “What happens at the moment of death?” leading Yama thereupon to deliver an elaborate exposition on the nature of the Absolute.

Chinese culture and Confucius

In the incessant comparison between India and China, the sheer visual evidence of China's public infrastructure—roads, airports, and bridges—stands out. Yet, giant infrastructure projects are nothing new for China. The Great Wall, the Grand Canal linking the Yellow River and the Yangtze, and the gargantuan 2000-year-old irrigation works of Du Jiang Yan among many others, are all part of ancient Chinese history. These were not monuments built to glorify any individual ruler, but are truly part of classically defined infrastructure—public investments for the larger common good. What motivated the then emperors to labour over these works for decades, each building on the efforts of his predecessor? Did the people willingly participate in these endeavours, or were these projects the fruits of slave labour exacted under imperial coercion?

Perhaps the Confucian ethic has a role to play. Although Mao Zedong tried his best to denounce Confucius and eradicate his teachings, even he had to admire the Confucian ethic for its emphasis on public education and social order. The heritage of 2500 years does not die easily⁹. What Confucius says in his *Da Xue* (“Great Learning”) still sounds strikingly scientific and contemporary, and a model of inductive reasoning from first principles:

*'When things are investigated, knowledge is extended,
When knowledge is extended, thoughts are made sincere,
When thoughts are made sincere, the heart and mind are rectified,
When the heart and mind are rectified, the personal life is cultivated,
When the personal life is cultivated, then the family is regulated,
When the family is regulated, the state will be in order,
When the state is in order, there will be peace throughout the world.'*

Notice that Confucius does not theorize about the meaning of freedom or justice. Confucianism strongly emphasized the network of obligations, duties and relationships that bind an individual to the family, community, state and society. Individual ethics and social order were harmonized: "*Maintain harmony though difference exists*" is a famous maxim. Right action is not only the correct moral course for a person, it is one that makes State and community a better place. The Chinese propensity to align individual goals and actions to larger social and national objectives and create mass mobilization of people, owes much to the Confucian legacy, and cannot be ascribed only to coercion or state diktat.

Following the inductive logic aptly illustrated by the *Da Xue*, this Confucian legacy ingrained deeply in the Chinese psyche emphasized the importance of moving in steps from the specific to the general, from the small to the large. The Chinese State is faithful to this precept, encouraging local units to innovate and experiment. When successful, local results are scaled up to a national level; if not, the unfortunate local Party functionary is consigned to a post deep in the interior. Far from being a top-down process, Chinese experimentation follows the time-honoured proverb of 'crossing the river by feeling the stones'.

But this is not the only tradition from which the State draws inspiration. There is a strong current of the Legalists' philosophy underlying the *realpolitik*, coercive apparatus and brittleness that mark China's governance methods. The complex nature of

challenges to come will put these methods to the test. But both Legalists and Confucians would agree on one thing—Confucius' prescription to a king on how best to rule his people: "*Enrich them! Teach them!*" said the sage, succinctly expressing motivations towards wealth and education shared by politicians and people alike. Here, perhaps, lies the thought that can transform Sino-Indian relations.

India and Gandhi

In India, our experience of diversity in daily life, whether of caste, creed, language or custom, has generated a flair for flexibility and cultural adaptation that is widely recognized, not least in the adaptability of Indians in new environments. The Indian mind also seems capable of operating at several levels, simultaneously holding views that may be directly in opposition. I am reminded of my experience as a child, going for an '*idli*' breakfast at the house of astronomer and physicist Dr. K.S. Krishnan, F.R.S. After his '*puja*', he meticulously rendered astrological advice to his family early every morning, but come 8 o'clock, was dressed in his suit and ready to leave for his office at the National Physical Laboratory, where he replied to letters from Einstein and Eddington. Indians take this kind of rare 'two-brain' ability for granted. The Chinese are constantly amazed at our fluency with languages and grasp of other cultures, our ability to deliver results amidst apparent chaos, and our flexibility in coping with issues both mundane and serious.

Gandhi personified the complex Indian mix of contradictions, and uniquely brought out its genius. He was deeply spiritual, yet thoroughly open-minded, and certainly not narrowly religious. He was morally upright to a degree many thought quixotic, yet he had a wicked sense of humour and fun. Gandhi was rooted in the soil of India and could thus innovate a novel form of protest, "*satyagraha*" which immediately caught the imagination of the poor and illiterate masses of India, just as it puzzled and confused the British rulers. An Empire was defeated with very little blood being shed. Gandhi focused on serving those most oppressed by India's caste system, concentrating on unglamorous but essential features like abolishing untouchability, and promoting sanitation and hygiene. The similarity

between Confucius and Gandhi is striking, with their initial focus on specific individual action, continuing in ever-widening circles to embrace the entire universe.

The distinctive modes of thinking in the two countries also give a clue to their failures. India has had problems in establishing both the structure and pattern of governance across large swathes of its national territory. In China's case, structural rigidity in its governance procedures has caused the emotional alienation of its outlying provinces. India has not generated mass mobilization of opinion in favour of rapid progress in health, education and infrastructure. In China, over-enthusiastic or coercive bureaucratic mass mobilization has resulted in much injury and injustice to its people.

Distinctive competences: China and India

The discussion so far about the specific qualities of Chinese and Sanskrit as also of the two cultures would lead one next to infer that there should be distinctly separate spheres where Indians and Chinese should display their relatively (in a statistical sense) greater capabilities. When the then Chinese Prime Minister Zhu Rongji visited India in 2003, he proposed (in a practical spirit worthy of Gandhi and Confucius) cooperation in information technology, with India being the lead partner in software and China in hardware. This is common idiom today, yet China still looks up to India's software industry with admiration and not a little envy. But we can also look further afield for potential synergies. What about India's design skills being married to Chinese manufacturing techniques? Chinese advances in biology, immunology and genetics can be tied in with Indian skills in health care delivery and nursing, both of which now command a world market. Consider pharmaceuticals. Theory would assert that China should lead in structural chemistry whilst India would dominate combinatorial chemistry, both areas being vital elements in new drug creation. This hypothesis is indeed borne out by the actions of the world's large pharmaceutical companies in their investment activity in the two countries¹⁰.

Could India's prolific and highly creative film industry partner with China's flawless choreography

and production values? Imagine films like *Asoka* set in India or Central Asia, drawing on the magical themes surrounding the Silk Route! Consider the attraction to audiences in China of a new *Journey to the West* or *Crouching Tiger, Hidden Dragon* shot in India with extravagant Bollywood music and dance, and what it would do for tourism to India. What about corporate alliances between India's management and consulting skills, with the Chinese organizational ability to execute gigantic infrastructure projects? Would Chinese student and youth tours to India be more popular if combined with a summer programme in English language or IT? What about India's English and multilingual abilities allied to Chinese pedagogical methods? The list of complementary abilities can go on.

Creativity and Innovation in India and China

An important set of complementary competences is apparent when we examine the different approaches taken in China and India in the areas of creativity, innovation and research. As would be predicted from our psycholinguistic model, Chinese innovations arise largely from trying to view problems (patterns) from unusual angles, to use inversion and analogy, and thereby generate novel solutions that might initially appear contradictory or paradoxical. The example of creativity in drug discovery, given earlier, is a case in point. So are a number of 'break-through innovations' listed by Prof. Ming Zeng¹¹ in his recent research, as well as advances in architecture and railway engineering. The 'one country, two systems' formula for the resolution of the Hong Kong issue is itself an early and striking example of such thinking. But it is revealing that the Dalai Lama's 'Middle Path' formula to resolve the Tibetan question finds little resonance in China; one reason might be that this formula by its very nature suggests an incremental, continuing process whose end-point is neither as predictable nor as amenable to control as a known alternative pattern, novel as that might be.

Indian approaches to innovation revolve around the ability to handle and harness chaos and complexity, and to be comfortable, indeed to derive pleasure, in dealing with and manipulating probability and uncertainty. This is best seen in, but not limited to,

India's success with software. But at another and more popular level, India's distinctive innovatory competence can be best summed up in the popular expression '*jugaad*'—a concept familiar to travelers on Indian roads on vehicles prone to several types of mishap. However, for every such risk of breakdown, a ready solution is available even in the most remote areas in the shape of improvised repairs and low-cost substitutions. Whilst these are by no means permanent solutions, they enable quick and inexpensive continuation of the journey. This spirit of generating speedy solutions through local materials and very low-cost substitutions has most recently been demonstrated on an industrial scale in the 'Nano' small car. Carlos Ghosn of Nissan-Renault has announced that a rival to the Nano will be designed entirely in India through collaboration with Bajaj Auto. Similar experiments elsewhere in India aim at low cost computers and cell phones.

A Pax Sino-Indica and its potential for the world

To summarise thus far, the Chinese way of thinking emphasizes the pragmatic and concrete with great visual imagery and a strong sense of civilizational history, geography and unity. Its ethical legacy values orderliness and harmony, even to an oppressive extent. In India, a vibrant, loosely held, imaginative and creative collection of people has strengths of complex and abstract thinking, along with flexibility in dealing with multiplicity, diversity and uncertainty. These two sets of attributes seem incompatible. Yet, like *yin* and *yang*, the combination of these two baskets of skills is exactly what is required in the conduct of business in today's world. Imagination without order would be chaos; structure without vibrancy would be sterile. A relationship that judiciously utilizes the strengths of both nations could set the direction for a number of outcomes with wide repercussions for the region and the world. The specific steps that India could take are specified below.

Firstly, focus on developing and demonstrating its economic competences on a global scale. This will evoke greater respect for India in China as also in Asia, Africa and Latin America. Secondly, keep the border issues on the back burner, focusing instead on building a deep and growing economic relationship

between India and China based on complementary strengths. This is the best bet to overcome the prevailing uneasy and suspicious bilateral climate. The examples of China's relationships with Japan, Korea, Vietnam and most strikingly Taiwan, have shown that comprehensive economic engagement—comprising trade, tourism and investment—creates an extensive and expanding community of mutual interests that can over-ride even the most visceral historical animosities and political differences. Remember: *Enrich them! Teach them!* If the prospects for public prosperity and popular education loom bright, war cries will disappear, or else remain at the level of rhetoric.

Finally, it is not difficult to imagine the power of an 'innovation engine' that couples the Chinese and Indian approaches to innovation as described earlier. Consider bi-national teams working with both inductive and deductive logical models, using radical pattern-change methods along with probabilistic and chaos theory, or combining low-cost substitutions with economies of scale. Even in their approaches to handling contradictions, the two cultures differ. Brought together, these diverse skills could generate a mass of new ideas and convert them into production volumes required by large populations. In both countries, problems of poverty, deprivation, ill health and inequality cry out for such solutions. Such a partnership should not limit itself to bilateral matters but go on to address pressing global issues such as climate change, a new financial and security architecture and a new moral order for the planet.

These problems require radical thinking and novel solutions, both of which could be the offspring of a marriage of Indian and Chinese ways of thinking. Issues of such dimensions are appropriate challenges for two ancient civilizations that seek to reinvent themselves as modern states and potential super-powers. Far-sighted political leadership should set their sights in this direction and create the conditions to move speedily towards these goals. Diplomacy, in the final analysis, lies in comprehending the world-views of both the dragon and the elephant and then employing the necessary sequence of communication and levers of influence and incentives. Both creatures are very different but yet live within the ecological unity of one world.

Remember that *longxiang* (dragon-elephant)¹² was the Chinese translation of the Buddhist protective deity *naga*. This suggests once again a central place for language and psychology in bringing about Sino-Indian synergy. I like to believe that both Sunzi and Chanakya would concur.

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