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THE EMERGING INDIVIDUAL

Abstract: Humanity is in the process of evolving from collective uniformity to increasing individual variation and diversity. This movement has gained impetus from the growing recognition that the overall strength and sustainability of the collective is proportionate to the value it accords to each individual human being and the active support it lends for full development of each individual's unique, creative potentials. The relationship between the individual and the collective, microcosm and macrocosm of one integrated whole which we call Society, is a crucial determinant of social development. The collective initiates social change through the actions of pioneering individuals – thinkers, artists, inventors, explorers, entrepreneurs, innovators – who give expression to its unrealized aspirations, unformed conceptions and unexpressed initiatives. Formed individuals seek to fulfill higher aspirations, express new conceptions and initiate new actions which are eventually accepted, imitated, organized and assimilated into the subconscious of the collective.

As humanity evolved from its animal ancestors in pre-history, Society emerged as an amorphous mass struggling to consolidate itself into a single viable, integrated entity. Once it succeeded in molding itself into a unified entity, it refused to tolerate divergent behavior among its members which threatened to jeopardize that integrity. Even harmless attempts at variation were prohibited. Thus, gradually the collective emerged with a unified identity. Beyond this stage of assured survival of the social collective, society has evolved subconsciously, that is, its development has occurred not by a conscious, concerted, organized and coordinated effort but by sporadic, spontaneous and uncontrolled variation. Once survival, the main objective, was assured, other activities were allowed to emerge and spread within strict limits but without conscious direction by the collective. During this latter phase, the accumulated subconscious experience of society leads to the acquisition of collective knowledge, but it remains unnoticed or unformulated and is not made conscious or explicit by the collective until it becomes conscious knowledge and is given conscious expression by one or a few members of the collective. The pioneer, leader, entrepreneur, genius and all its other versions are various expressions of a common principle, the Individual who consciously embodies in himself all that the society has developed subconsciously.

The evolution of individuality remains incomplete. At the level of society, convention and conformity stifle individual freedom and creativity. The need today is for individuali-

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ty of social action with the creative capacity to fashion more positive human relationships. It can be aided by mental individuals who give voice to ideas that will guide social development in the future, such as global financial management, full employment, new economic theory, the abolition of nuclear weapons, the end of competitive security paradigms, democratization of the UN and global action on the environment.

Key words: *Evolution of individuality, Individuation, Individuality, Individualism, Social and Human Capital, Social Development*

Science searches for universal laws and general principles governing finite phenomenon. It seeks for commonalties, categories of similarities and repeating patterns behind apparent differences. In recent decades, the science of complexity has revealed that even complex variations and irregularities often conform to rules of their own. However, science has yet to evolve a methodology and framework for conceptualizing uniqueness. Infinity does not conform to universal laws. Uniqueness is an expression of infinity in the finite.

Physical phenomena lend themselves most readily to this search for inviolate universal laws, though quantum theory has discovered at its very base that even the physical world is founded on uncertainty. But when it comes to society, the challenge is far greater, for social phenomena are both more complex and more subtle. Apart from being subject to the same physical laws that govern all matter, they are subject to social, political, economic, cultural and psychological forces that are more difficult to measure and corresponding principles or laws that, if they exist at all, are more difficult to decipher. No wonder that social sciences today lack a consistent body of principles universally accepted as applicable to all fields.

How then are we to attempt a study or serious discussion about individuality, which by its very nature represents that most complex phenomenon, known to human beings – our own uniqueness? One tempting approach is to deny the very existence of the individual and conclude as Peter Watson did at the end of his monumental study *Ideas: a History from Fire to Freud*, “There is no inner self. Looking ‘in’, we have found nothing – nothing stable anyway, nothing enduring, nothing we can all agree upon, nothing conclusive – *because there is nothing to find.*”[1]

FIRST LAW OF INDIVIDUALITY

How then to proceed? Let us begin with what we do know with relative certainty about the phenomenon of individuality, for this itself is so astounding that it warrants serious contemplation. First of all, we know for a fact that throughout history, individuals have played a remarkable role in the development of civilization and the social evolution of the human race. However incomplete or distorted the historical record may be, however great our collective penchant or the tendency of biographers to glorify leaders and heroes, there is no question that the world would be a very different place today were it not for the fact that people like Buddha, Ashoka, Alexander, Socrates, Aristotle, Plato, Augustus, Jesus, Moham-

med, Joan of Arc, Leonardo, Elizabeth I, Shakespeare, Luther, Newton, Washington, Jefferson, Catherine the Great, Napoleon, Darwin, Beethoven, Tesla, Marie Curie, Edison, Einstein, Ford, Susan B. Anthony, Jean Monet, Gandhi, Churchill, Mandela, Gorbachev, Aung San Suu Kyi, Ted Turner, Tim Berners Lee, Steve Jobs and countless others lived and acted when and as they did.

It is, for instance, difficult to imagine the course that the Indian independence movement would have taken had Mahatma Gandhi not returned to India and assumed leadership of the movement. India's independence was followed in quick succession by the liberation of more than forty-five other former colonies around the world, all but a few by peaceful transfer of power that mimicked the remarkable and unprecedented Indian achievement. We cannot say for sure whether, when, or how the Cold War would have ended were it not for Gorbachev's initiatives to dismantle the authoritarian state from the seat of its power or what would have been the fate of the 70,000 nuclear warheads, most of them armed and on active alert status at that time. No matter how limited the data or unreliable the facts, we are left with the irrefutable conclusion that a single man or woman – one single human being – has the power to change the whole world. This constitutes the irrefutable fact or law number one in what we may very loosely term 'the science of individuality'.

And as a corollary to this principle, what is true on the macro scale of nations and the globe is also true at the micro level of the local community and at all the levels and fields in between. Thus, a century after the American Civil War abolished slavery in the USA, a middle-aged black woman named Rosa Parks launched without fanfare the American Civil Rights Movement in Montgomery, Alabama by refusing to move to the back of the bus. Her action stirred thousands of other blacks in the southern states to reject passive submission to unconstitutional discrimination and demand enforcement of rights that had been constitutionally guaranteed by the 13th Amendment in 1865. More remarkably, in doing so she was walking in the footsteps of another individual, Mahatma Gandhi, who had performed a similar feat decades before, 8000 miles away, who in turn credited for his inspiration a Jewish mystic in Palestine who lived 2000 years earlier.

The same story repeats at hundreds of levels in hundreds of fields. Olof Tandberg narrates the remarkable rise of Abdus Salam from an ancient Pakistani village to win the 1979 Nobel Prize in Physics. [2] Unsatisfied with such a modest achievement, he went on to found the International Center for Theoretical Physics and the Third World Academy of Science in Trieste, which have promoted the growth and development of science throughout the developing world. Those who ever saw the twinkling light of radiating goodness in Salam's eyes can only marvel at the mystery of individuality and its infinite human capacity for accomplishment.

This first law of individuality suggests a final consummation for humanity as a whole. Just imagine the wondrous creativity, superabundant prosperity, incessant marvels of discovery and endless delights of self-discovery in a world teeming with remarkable individuals. Emerging Individuality and highest human accomplishment proceed hand in hand.

SOCIAL CONFORMITY

One principle does not make a science. At the other end of the spectrum, we are forced to recognize that what we call individuality is more an exception than a rule in human affairs. While it may be true that every human being has a unique set of fingerprints, most human characteristics and behaviors readily lend themselves for analysis into recognizable types and categories. Like our animal ancestors, human beings seem to have much more in common than they do in difference. So much so that like most scientists before the birth of Complexity Science, we may be tempted to acknowledge only the similarities and disregard or explain away the differences as noisy or incomplete data. So, let us acknowledge as law number two that individuality is an exception, rather than a rule, even in those who appear to be most individualistic in their thought or behavior.

We need not rely solely on scanty anthropological evidence or even the historical written record in support of this principle, for even today we find that the similarities in thought, beliefs, values, manners, behaviors, skills, attitudes, opinion, sentiments, preference and even forms of creativity closely resemble one another. So too, when change occurs in any of these perceptible expressions of personality, it tends to occur over entire populations. We see that tendency today in the conflict between mental values of rationality and vital value of conformity, which Lee Smolin describes in *The Trouble with Physics*, where he attributes the almost complete dominance of string theory in theoretical physics to a prevailing instinct for social conformity within the scientific community, rather than to rational choice. Similarly, the global contagion in financial markets that followed the subprime mortgage debacle in 2008, the shifting popularity of Republican US presidential nominees following each media report, the fact that the majority of Americans today actually believe that the USSR and USA fought against each other in World War II, and the current global consumer craze for the Apple i-Pad 3 are just a few indications of our strong penchant for collective conformity. Even Copernicus was at best an unwitting revolutionary who had no intention of challenging the authority of church or bible by putting forth his heliocentric theory of the universe. Martin Luther, who ranks among the most influential human beings of the past five centuries, blithely dismissed Copernicus as an “upstart astrologer”, which reinforces the argument that individuality in one field does not necessarily extend to others.

THE BIRTH OF SOCIETY

As a sociological phenomenon, the tendency to conformity and uniformity among human beings is readily understood. The formation of human communities demands it. The creation of society is another wonder of evolution that rivals that of the individual. The complexity of uniqueness in the one is matched by the complexity of multiplicity in the other. Society arises from an amorphous mass of instinctive human energies directed by a common awareness, organized by social

structures and expressed through acquired skills and shared attitudes to produce the endless progression of advances ranging from the stone axe to the internet.

By a remarkable process that is yet to be fully fathomed, the undefined social organism organizes the raw energies of its unformed members into capacities for individual and collective accomplishment. At one end we see the early outlines forming a unified human community. At the other, we find growing signs of the emerging individual sprouting like a seed in the heart of every human being. The growth of society and the development of the individual are two expressions of a single process.

If this is indeed humanity's ultimate destiny, it has been far from apparent through the course of human history. Society is born by taming the raw energy of its individual members and subjecting it to rigorous constraints. The first necessity of every human collective is to secure itself from external threats, which necessitates compelling its members to fight and sacrifice themselves for the survival of the group. Second is the need to impose internal order by establishing a hierarchy of authority and compelling cooperation among its members through mechanisms that govern the distribution of decision-making and executive power. These structures need to be supported and extended to ensure conformity in every aspect of social life by means of common codes of conduct, customs, laws, shared beliefs and values. Failing these two conditions, no social group can achieve stability or long endure. No society tolerates dissent or variation in areas that may challenge the foundations of its authority or threaten its very survival.

The urge for social conformity extends beyond the necessities of survival. It arises from the native impulse for imitation within the subconscious collective desperately searching for greater knowledge and power. Conformity among members of early human communities was inevitable in view of the dearth of knowledge, skill and technology that they possessed. Prior to the advent of agriculture about 10,000 years ago, the list of human inventions indicative of collective knowledge was indeed scanty – fire, pigments, spears, axes, glue, bow, flax cloth, flute, twisted rope, brick and pottery constitute a fairly comprehensive list. Study of the evolution of the stone axe over hundreds of thousands of years reveals very little variation and very slow development, suggesting that innovation was not a strong suit of early humanity. By comparison, we know that within fifty years of the invention of the printing press by Gutenberg, there were more than 2000 presses operating in 200 European cities and more than 20 million volumes had been published. By 1800, more than a billion books had been printed in Europe. [3] Something happened over the millennium to facilitate the rapid dissemination and proliferation of new ideas and new things. Society grows by imitating the new discoveries and fresh inventions of its most accomplished members. 'Spreads like wildfire' is a common phenomenon when it comes to new social innovations, especially those that have immediate and apparent practical utility, such as the steam engine, telegraph, light bulb, telephone, automobile, television, personal computer, Google's search engine, Facebook's social networking website, the iPod and iPhone.

Conformity and uniformity have been dominant characteristics of human communities throughout history. Thus, religious conversion may start slowly but once it commences it tends to continue until the new encompasses all or a large part of the entire society. The emergence of new beliefs based on the discoveries of science follows a similar pattern. Thus, we can almost count the number of people in the USA today who still reject the Darwinian theory of biological evolution – a larger number than one might expect, but well-defined by their conformity to an alternative belief system. Regardless of whether we examine the behavior of investors in the stock market, the confidence of the business community, attitudes toward deficit spending and tax cuts, scientific theories, social and cultural values, popular fashions or forms of entertainment, human beings still tend in most matters to move in groups and align themselves with the ideas and behaviors of their fellow members. If Individuality exists at all, it is certainly dwarfed in magnitude by commonality and conformity.

INDIVIDUAL AS PIONEER

If everyone imitates everyone else, how then can we account for the remarkable and unprecedented inventiveness of human society? Ironically, it is only through individual variation and rebellion against blind conformity that society advances. The very urge to impose uniform beliefs and behaviors on its members is a conservative tendency that stifles social vitality and progress. The rogue individual acts like a mutant gene to introduce new variations in human conduct, many of which are ultimately rejected as destructive or without value. But out of innumerable failures emerge the new ideas, inventions, discoveries and ways of life that drive social evolution.

The individual as pioneer, rebel, adventurer, discoverer, inventor, entrepreneur, social innovator, original thinker, creative artist, genius and saint continuously conceives and experiments afresh and spews forth on society an endless succession of new possibilities. The individual is the essential counterpart without whom no society can grow and develop. History recounts the thoughts and deeds of the most remarkable individuals whose impact becomes visible at the level of the nation or the world, but the same process occurs and repeats itself at every level and in every field of society. Like the mountain peak which is supported by the entire mass of earth sitting beneath it, outstanding instances of individuality arise on the foundation of countless smaller and lesser expressions.

Warren Buffet displayed the characteristic American endowment for entrepreneurial individualism, when he began accumulating capital by delivering newspapers and selling used golf balls at the age of 10. Anna Hazare, a retired Indian soldier, revealed the enormous power of anonymous individuality in 2011 when he launched a nation-wide protest against corruption in India. India's Green Revolution was made possible by an individualistic spirit of innovation among peasant farmers who readily and rapidly adopted new hybrid varieties and cultivation methods for grain production.

Historically, the pioneer is usually confronted with condemnation, opposition or ridicule by a skeptical, suspicious or jealous social establishment reluctant to believe, accept or credit anyone with greater truth, knowledge or capacity. But, power attracts and the capacity for greater accomplishment is an irresistible attraction. Sooner or later, it leads others to imitate, reproduce and spread the pioneer's success throughout the community, until a time when the subconscious collective comes to recognize, admire and embrace the new, to organize and propagate it through public support or education, to convert innovation into established practice, to assimilate it as social institution and integrate it within its cultural values.

Historically, the individual and the collective are often juxtaposed as conflicting, contradictory forces engaged in perpetual battle □ the individual's quest for freedom against the collective's imposition of social authority. This is a vast oversimplification. Most members of society crave for the security of conformity and thrive as anonymous members of the group. Every civilization that has survived and grown has done so by actively fostering and raising to leadership its most talented members.

The very nature of organization has an in-built tendency to become rigid, entrenched and resistant to change. There is indeed a recurring struggle of the collective to suppress and oppress, and of the individual to rebel, but these are best understood as imperfect tendencies of a still young, immature civilization struggling for the right formula. Wherever the collective succeeds too well in dominating its members, it declines and becomes decrepit. Wherever its members succeed too well in asserting their individual inclinations, society loses its strength and integrity, becomes weak and vulnerable to assimilation by more cohesive groups. Thus, the individual and the collective thrive best in a symbiotic relationship. The individual cannot survive without the support of the collective. The collective cannot grow, develop and evolve without the creative initiatives of its most conscious members. Orio Giarini explores the inherent tension between these apparently irreconcilable urges for certainty and freedom, conformity and individuality in his essay and dialogue "Secretariat of the Soul and Certainty". [4]

THE EVOLUTION OF INDIVIDUALITY

Is individuality evolving? Historians denote several periods in the past that were characterized by an increasing tendency toward individualistic ideas and behaviors. Ancient Greece during the time of Plato, Aristotle and Socrates marked the emergence of mentality in the individual, when society came to accept and even actively encouraged differences of viewpoint and perspective as an essential ingredient for collective progress. This period involved a turning inward, a shift from emphasis on the gods to emphasis on man himself, his own psychology, moral sense, conscience, intuition and individuality. [5] Within a very short period, principles of freedom, democratic governance, equality, the doctrine that any man can discover the truth for himself, the emphasis on individual character and ethical choice, the soul and individual salvation became predominant both in idea and

practice. Oxford historian Isaiah Berlin denotes this birth of Greek individualism as one of the three great turning points in Western political theory. [6]

The Renaissance is a second obvious period in which the quest for individual expression rose to the fore, a topic explored by Augusto Forti in “*A History of the Individual in European Culture*”. [7] The revival of classical scholarship in the late middle ages after 1050 led to the rediscovery and extension of the principle of free mental inquiry so characteristic of Ancient Athens. Many factors supported this awakening – the spread of commerce and rise of a prosperous middle class, the growth of cities, the invention of the magnetic compass opening up oceanic navigation, the invention of the printing press which facilitated individual learning and the secularization of education, the impact of the Black Death which weakened feudalism and undermined the authority of the church, the shift from church dogma to individual faith and interpretations of the gospel, the idea of inner repentance, stress on individualized expression in various forms of art, the growing popularity of autobiography and notions of romantic love are among the prominent causes and characteristics of this period, which ranks among the most creative in human history. Here too, democracy bloomed among the small city-states of Italy, where aristocracy increasingly gave place to self-governing communities. Colin Morris ranks the discovery of the individual as one of the most important cultural developments of this period. [8]

The spread of education, democracy and scientific thought in subsequent centuries built on this creative out-flowering and established individuality as a more dominant, consistent theme. In “A Study of Individuality and Social Evolution in Literature”, Janani Harish examines an early stage in the emergence of the modern individualized woman as depicted in English literature at the time of the French Revolution to illustrate the central role of the individual in the evolution of the society. [9]

In *The Human Cycle*, Sri Aurobindo describes the Enlightenment as a quest to rediscover substantial truths of life, thought and action for both the individual and the collective, which had been obscured during the oppressive conventionalism of the early Middle Ages in Europe when literacy and education declined drastically, books were banned and burned, libraries shuttered and thoughtless adherence to established church dogma prevailed. [10] An age of Individualism, he argued, is a natural response to an age of deadening conventionalism in which social vitality is drained by rigid fixity of thought and behavior. A rationalistic, scientific, materialistic, utilitarian and individualistic age arose in an attempt to arrive at an objective and verifiable standard of truth and a quest for universal laws applicable to the governance of society.

What the European enlightenment achieved for the development of scientific thought among the elite, America achieved in the application of practical technology and social organization at all levels of society. The settling of America gave rise to new and unprecedented expressions of individuality and individualism. Millions fled to the New World in pursuit of freedom from poverty, the oppressive confinement of class and cultural barriers, religious persecution and social discrimination. The pilgrims, founding fathers and pioneers that settled the American West

left behind the security and stability of the Old World to discover and found a new one. They risked their lives in the quest for freedom. Abandoning the shelter of long established communities and cultural homogeneity, they explored, settled and developed a land in which even the most basic social support systems for protection, law and governance were lacking.

Independence of spirit and courage of self-reliance became essential for survival. Tolerance and respect for differences of thought, belief and behavior were imposed as a practical necessity. The vast open territory offered unprecedented opportunities for impoverished landless peasants to create prosperity for themselves and their descendants. Countless thousands arrived penniless and rose to middle class status in a matter of a few months. A sense of indomitable self-confidence and a can-do attitude were the natural product of their remarkable achievements. A scarcity of labor to farm a vast territory placed a premium value on the human being who often started off as a day laborer working on someone else's land or factory only to acquire his own farm or factory soon afterwards. Freedom became a fact of life first, a cherished constitutional right only afterwards. More than anything else, it is this characteristic faith and practical emphasis on the value, rights and potentials of the individual that have made America an icon and model which other peoples seek to emulate.

The psychological history of humanity recounts numerous periods in which individuality suddenly blossoms forth and then tends to recede from prominence. It also reveals a progressive trend. Each subsequent age of individualism has built on those that preceded it to establish firmer foundations in thought, principle, law and practice. Each has spread to encompass a wider geographic area and to spill over beyond finite boundaries in space and time. Intellectual and political freedom in Greece matured as economic, social and artistic freedom in Renaissance Europe did. Freedom of thought in Europe matured as freedom of religious tolerance, economic advancement, educational opportunity and social equality in America. Freedom and creativity for a small elite have gradually been extended until they permeate the entire society.

Winston Nagan's article "Individuality, Humanism and Human Rights" illustrates with reference to recent events in Tunisia the seminal role of the individual in making micro-level value demands on society that ultimately determine the social process, the formation of law and the recognition of human rights. Human rights are recognized because individuals demand them. [11]

We live today in a period, which is in many ways a culmination and fulfillment of these earlier periods. For the first time the phenomenon of individuality is no longer confined to a nation or region. The aspiration for freedom and human rights has become universal in principle if not yet in practice. In recent decades, the principles and practice of democracy have spread around the world, education has moved toward universalization, human rights of every citizen are acknowledged, at least on paper. Never before has the single person possessed so much freedom of thought and action, equality of social status and treatment under law, protection and support from the community against various forms of discrimination and persecution.

SOCIAL AND HUMAN CAPITAL

The historical evolution of individuality offers essential insights into the process of social development. Society is an ocean of human energies in constant motion. The power of society for accomplishment depends on its capacity to direct and channel those energies to achieve its goals. Ideas, beliefs, values, aspirations and goals are the means it uses to give direction to those energies. In earlier times, the dominant direction may have been adherence to religious dogma, military conquest, expansion of empire or the discovery of new lands and untold wealth overseas. Usually, this urge was embodied in the thoughts and actions of a small ruling elite, such as the top three percent of European aristocracy that monopolized positions of political power, religious authority and military leadership in the 18th century. Today, it is embodied in the quest of people everywhere at all levels of the population for more education, greater economic opportunity, better healthcare, longer life, access to modern comforts and conveniences, higher social status, and assured security during years of retirement. The unprecedented significance of this percolation of aspiration down through all levels of society is what Harlan Cleveland so perceptively termed “the revolution of rising expectations”. People everywhere are awake and aspiring. The first minimum condition for the emergence of individuality has become a near universal fact.

Social organization is the mechanism devised for conversion of this awakened energy into power for social accomplishment. In modern times that organization assumes myriad shapes and forms, as in the institutions of democracy, rule of law, codified human rights, universal education and professional training, scientific research and experimentation, industrial production, domestic and international markets, banking and financial markets, transport and tourism, communication, media, recreation, entertainment and countless others. Each new right granted or enforced, each additional member educated or skill imparted, each new inspiring idea, invention, discovery and social innovation generates greater confidence and releases fresh energy among members of the society. Each new organizational mechanism increases the speed, reach and efficiency of the social whole.

Markets and money have played a unique role in the development of social capital by awakening the aspirations and unleashing the energies of those who hitherto had little incentive to produce more than they could utilize for their own consumption. Market is a ubiquitous institution that enhances the productivity and opportunities available to every member of society. The opening of access to markets provided each producer with an incentive to maximize production so that it could be converted into a far wider range of products and services beyond his means to generate by self-production. In other words, *the market empowers and expands the opportunities of each member of society*. Each new entrant to the market multiplies the opportunities of other buyers and sellers, thereby exponentially enhancing the potential of the collective. Money acts as catalyst to vastly facilitate, accelerate and extend the reach of markets from the local to the global level. Each financial transaction increases trust, thereby multiplying the propensity to trans-

act and generate wealth. So too, money facilitates the conversion of any form of social power into every other form, thereby increasing the strands of relationship and density of interactions that bind people and activities into a social whole.

Each new advance multiplies the social potential. Each new organizational link converts more potential into usable social capital. Together, all these form the warp and weft of the social organization that constitutes the complex web of social relationships and interactions between people, places, activities, and institutions that account for the incredible productivity of contemporary life. The enormous size, scope and complexity of the Internet are only the most visible or easily conceivable forms in which this web manifests. Taken together in its totality and integrality, this constitutes an enormous source of power for accomplishment. It is the Social Capital on which all our collective activities are based. In "Economics of Dignity", Saša Popović & Ljudmila Popović stress the vital linkage between interpersonal relations and the development of human capital and show how the internet is opening up unprecedented opportunities for wealth generation through closer relationships between people.

As our brief historical narrative makes evident, political freedom and social equality are essential conditions for the full emergence of the individual and social progress. Periods characterized by high levels of individualism have been those of the greatest intellectual creativity and rapid economic expansion, in which dynamic, talented people enjoy the freedom to explore and express new ideas, acquire wealth and social status unimpeded by religious, social or cultural barriers. These periods have also been ones in which access to education has been most widely prevalent. Those societies whose social institutions most actively support the development of its individual members – its Human Capital – tend to become the most productive and creative ones. Thus, social capital and human capital go together. Social capital develops by the contribution of pioneering individuals. Individuality spreads and flourishes in circumstances where social capital is designed and attuned to accord greatest support for the full development and freedom of expression for human capital. Individuality grows and emerges out of this creative caldron at the intersection where social capital and human capital meet, harmonize, integrate with one another for the mutual development of one another and for the further evolution of the whole humanity.

Education plays a unique role in the development of human capital and the full potential of the individual. It is a social system devised to pass on to future generations in a concentrated and abridged form the essence of human experience as organized and codified knowledge. Once regarded primarily as a luxury for aristocrats, churchmen and law-makers, education has come to be regarded as an essential possession for success in modern society. Yet, all too often, the mechanical methods of rote memorization and training applied based on discipline and compulsion resemble forms of religious indoctrination developed a millennium earlier. Important new ideas about education and upbringing of children gained prominence at the turn of the 20th century but have yet to be adopted by the mainstream educational system. [12] The new movement was founded on the discovery that ed-

education should base itself on respect for the psychology of each individual child and have as its aim the free organic growth and fullest development of the child's innate intellectual, moral, aesthetic and practical capacities. Replacing mechanical methods and external pressure administered by the instructor with efforts to awaken the curiosity and release the energy of each student, the new education seeks to discover and bring forth the latent potential of each child for creative individuality. At its best, *education becomes society's most conscious and effective method for fostering the evolutionary emergence of individuality.*

INDIVIDUALITY VS. INDIVIDUALISM

Before concluding, we need pause to more clearly define our terms. Every science depends on sound definitions; and a science of individuality, if it is to ever exist, is in desperate need of a sound linguistic basis. Thus, before the ambiguity of contemporary English completely obscures the intended meaning of this paper, let us try to arrive at some agreed upon terminology for further discussion.

We face a formidable linguistic hurdle in English because the word 'individual' is commonly applied to three quite distinct though related phenomenon. On one hand, the word 'individual' means single or separate, so it is employed with reference to a single member of any group as a synonym for one person. In earlier periods, the term 'man' was frequently used to denote any person, but this usage has declined with growing sensitivity regarding gender bias in language.

On the other hand, individuality is also used in a quite opposite sense to identify a single human being with striking or unique characteristics. The first use applies to all members of a group without discrimination, the second only to those who stand out as different. Therefore, to avoid confusion we propose to confine our usage of 'individual' to those who embody unusual or unique characteristics, and 'person' or 'human being' to a single member of the group.

But, our linguistic problems are not yet fully resolved, for we need also to contend with the ambiguity of the words 'individuality' and 'individualism', terms which are often confused or regarded as synonymous. 'Individualism' is used to denote a form of independence and self-reliance and a social theory that favors freedom of action for individuals over collective or state control. However, the term usually carries the connotation of self-centeredness of feeling or conduct, i. e. selfishness and egoism.

The term 'individuality' is used with reference to distinctive qualities or characteristics, a meaning much closer to what we apply to the term 'individual'; however, it also has overlapping connotations. This ambiguity is complicated by the fact that the process by which individuals differentiate themselves from the collective has been commonly associated in history with an increasing sense of separateness from others leading to exaggerated self-centeredness, selfishness and egoism.

Though language confuses, we maintain that a valid distinction does exist between the person capable of unique and original action and one who simply pursues his own self-interest without regard for its impact on the community. Indeed,

nearly all the instances of individuality cited earlier are of persons who sublimated their own personal interests to make remarkable contributions to humanity as a whole, in most cases consciously and intentionally. Therefore, we need to apply both care and patience in examining the similarities and differences between these phenomena.

The essence and highest expression of individuality envisioned by this study are human expressions of creativity and uniqueness by which single human beings make an extraordinary contribution to the advancement of civilization. Our hypothesis is confirmed by eminent psychologists such as Jung, Maslow and Rogers who describe mature individuality as an advanced stage in the evolution of human personality, a development of consciousness made possible in freedom by which an undifferentiated member of the collective develops a unique personality with distinguishing qualities and values and a marked sense of social responsibility as well as individual responsibility. It is a stage which few may reach but all possess in potential and can tend toward. This advanced stage in the development of individuality is variously referred to as self-realization, self-actualization or individuation, which is employed in the rest of this paper.

Our historical narrative has thus far failed to adequately distinguish between individuality as a subjective stage of psychological maturity and individualism as an objective stage of social evolution. Indeed, the two have been so inextricably interlinked that it may prove very difficult to do so. However, that does not mean the two are one and the same or inseparable. The essential core of individuality or individuation is the subjective psychological development of the person, which is greatly facilitated by supportive objective conditions of freedom and equality. The essence of Individualism is a social stage in which self-pursuit by each member takes precedence over conformity to the collective. Individuality is the meeting place between the objective and subjective dimensions, the social and the psychological, between inner growth and outer capacity for accomplishment. *Individuality is the point of self-expression of humanity's infinite spiritual potential in a finite world.*

Given that human social evolution has started off with a strong emphasis on the domination of the collective, it may well be that a strong assertion of the individual declaring his independence and even his utter disregard for the collective may well be regarded as a necessary and inevitable reaction, an immature stage in social evolution before a proper balance can be achieved between freedom for subjective individual development and expression and harmonious relationships between each and every member of a free society.

We may still be very far from achieving this balanced goal, but it is important to emphasize the difference in principle. Otherwise, there may be a tendency to decry and reject the development of individuality as inimical to social peace, justice and harmony. Indeed such a view point is markedly alive today. Self-aggrandizing egoism is not a new phenomenon, but it assumes more visible and vulgar manifestations today and the threat it poses to the future of humanity is more apparent and more serious than ever before. Yet, in rejecting the excesses of individualism, we must be careful not to reject the finest flower of human evolution, the mature in-

dividual. For the testimony of eminent psychologists suggests that a truly creative, harmonious society can only be achieved by encouraging and accelerating the process of individuation in all its members.

INFINITE COMPLEXITY

Benoît Mandelbrot discovered the complexity of finite forms (fractals) which demonstrate infinite repetitive patterns of self-similarity on any scale and can be described by complex quadratic polynomial equations. The human individual is an infinitesimal microcosm of society, which contains in potential all the acquired capacities of the society and displays repetitive patterns of self-similarity combined with expressions of uniqueness, which defy description and explanation. The individual is a finite form that conceals within itself infinite potential, which grows, develops and evolves along multiple dimensions without apparent end or limit. By will and aspiration, it develops in the quality and intensity of its energy at the physical, vital-emotional, mental and spiritual levels. By ideas, ideals, values, opinions, attitudes and beliefs, it develops in the quality and intensity of the force with which it directs that energy toward different goals. By the organization of its external conduct, conscious opinions and beliefs, deeper values of character, expansive aspects of personality, it channels and converts the force of energy into mental, emotional and physical power for accomplishment. Through its skills and attitudes, it expresses that organized power in all its outer actions in relation to the world around it. In "Evolution of Individuality", Ashok Natarajan explores a few of these deeper dimensions of individual complexity. [13]

Society is that world and it contains within it all the same dimensions and levels, multiplied in its complexity by the myriad individuals who constitute its members. Thus, we have an infinitely complex instrument of human personality relating to an infinitely complex field of social opportunities through myriad forms of mental, social and physical action. Through the interaction of countless individuals with the social collective, the collective directs its energy for survival and preservation of what it has achieved in the past. It seeks also to expand and multiply those achievements in space and time, to encompass larger areas, more people and new activities, as in the way education is presently being propagated and extended at all levels in an effort to saturate all members of society with this rich social endowment.

Simultaneously, society has an incessant urge to develop its structures at higher levels, as commerce, education and countless other activities are now being extended globally through the internet. Thus, Stanford University professor Sebastian Thrun recently resigned his job teaching artificial intelligence to 200 university students in order to establish a free, internet-based course on search engine design in which more than 500,000 students have enrolled globally. [14] Finally, society also seeks to continuously evolve and manifest higher levels of consciousness, as evidenced by the shift from the near-animal existence of hunter gatherers into the sedentary agrarian civilization 10,000 years ago, or in the expansion of world view from the village to the city, the city to the nation and the nation to the glob-

al community, or in the sense of global consciousness and human unity gradually emerging through the internet.

Thus, as society evolves, individuality appears in multiple grades, as Ivo Šlaus and I explored in an article entitled “Human Capital and Sustainability”. [15] The physical individual is characterized by a pronounced capacity for self-reliance and physical independence of action, traits essential for survival of early immigrants to America and for their westward movement across the frontier. Vital-social attributes of individuality manifest as a sense of self-respect and a capacity to decide without reference to pressures for social conformity and a capacity to attempt in society what others have not hitherto attempted or succeeded in accomplishing, attributes common among inventors, entrepreneurs and social innovators who attempt what others have not so far dared to attempt. Mental characteristics of individuality emerge when scientists, artists and thinkers dare to depart from established ideas and beliefs, to espouse what others deny or ridicule. Spiritual attributes of individuality reveal in those who dare to imagine, aspire for, strive for and live by values and levels of perfection beyond those presently endorsed or admired by humanity.

MULTIPLYING UNIQUENESS

So far, the world knows of very few great individuals and countless anonymous followers. There was a time in past centuries when anyone who could read or write was considered a scholar or even a genius. Knowledge was scarce, education was rare. In 1861, only a single PhD was awarded in the entire USA. A century later, some 30,000 new PhDs were awarded in a single year. Today, the number exceeds 50,000. Similarly, the number of talented musicians, painters, thinkers, jurists, scientists, and inventors was extremely limited in all countries in the past. Today, there are most talented and accomplished individuals in every major city than there were in entire countries a century ago. The demand for freedom and human rights, the universalization of education, the compelling attraction of urban life, the awakening of social aspirations globally, the rising spirit of entrepreneurship in all continents, the breaking down of class barriers, the increasing social mobility, the unprecedented spread of prosperity, the urgent quest for better health, the thirst of all for comforts and conveniences which until recently were considered the privilege of a few – are these not distant signs of a general awakening and the emergence of a greater human potential?

Could it be that through the cumulative development of social capital and cultural experience humanity is on its way to discovering the formula for an infinite multiplication of individual capacity and uniqueness? Perhaps that was what the French Utopian Socialist Charles Fourier (1772–1837) had in mind when he envisioned a future in which there would be 37 million poets equal to Homer, 37 million mathematicians equal to Newton, and 37 million dramatists equal to Molière. Was he an inverted dreamer or did he really see the future?

An overarching objective of this investigation is to determine whether a strategy can be devised by which we can consciously increase the range, incidence, varieties and degrees of creative individuality and more effectively harness its untold creative power for the betterment of all humankind.

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