

Foresight Styles Assessment: A Theory Based Study in Competency and Change*

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Abstract

Foresight Styles Assessment fills a gap in understanding the range and qualities of foresight competency. Within the human neurological capability for long range thinking, FSA proposes six styles. It suggests four areas affecting the degree to which the six styles utilize foresight when confronted with externally imposed change. Those four areas are: temporal orientation, holistic or dual-process thinking, structural orientation and activity orientation. The author describes the six foresight styles as a system and defines each style. This paper is one of two, the second of which will present Foresight Styles from a statistical perspective.

Keywords: foresight, foresight competency, externally imposed change, change, temporal, holistic, dual-process, structural orientation, activity orientation, Kirton Adaption-Innovation, temporal orientation, ecological, linear thinking, holistic thinking, dual process, analytic/holistic thinking, innate time orientation, transformational leadership, temporal alignment, long range, short range, future orientation, being/becoming, action orientation, structural orientation

Foresight Styles Assessment attempts to describe the variety of behaviors ensconced in our human ability to plan and visualize the future and how they react to external change. FSA was originally intended as a practical tool for use with prospective clients who had a difficult time seeing the usefulness of futures techniques i.e. trends and scenarios. While some found them interesting, they could also be judged financially as non-justifiable. Some were looking for predictions in quantifiable formats, which scenarios did not provide. It was hoped that by asking the questions, as in interpretive research, the client's future thinking might be broadened. In the arena of futures studies research, it appears the levels and proportions of foresight thinking in the average population have

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not been tested. Foresight Styles opens the door to such research, but much is left to be done.

Is our human ability to plan and visualize the same for everyone, or are there degrees to which we differ? Were these prospective clients just echoing their own place on a spectrum? A new theory of memory states finds that the ability to recall the past and envision the future uses almost the same neurological pathways. Scientists have seen that if one cannot remember the past, it is very hard to envision the future. Support for this theory has been found in research carried out at Washington University in St. Louis (USA) (Szpunar, 2007). All the areas of the brain used in recalling memories were used in creating the future. The only exception being that when imagining the future, additional neural areas were activated. The remaining patterns in which both the past and future are similar "lit up" the fMRI (functional magnetic resonance imaging) equipment were the same. This lays to rest the idea that the frontal lobe, the "newest" portion of the brain is the only portion involved in thinking about the future. It is now known that ideas tend to come most surely from people who can recall, in detail, personal past events. This knowledge is echoed by research on time orientation by Peg Thoms, who argues that future-oriented people tend to be good at creating visions. They usually have detailed cognitive images of what the future can be (Thoms, 2004). Events related by others can also help us see possibilities for the future. The degree to which one has experienced events is the degree to which we can imagine them happening in the future. Or, said another way, if we can't think it, we can't realize it.

A large body of research called Innovation Diffusion (ID) (Rogers, 2003) along with different individual reactions to change seen and studied in thirty years as an organizational consultant and futurist have greatly inspired Foresight Styles Assessment. Foresight implies change and innovation diffusion offers a scale ranging from denial to introduction of the new. The origin of the new idea is not clearly delineated. A task for Foresight Styles was to re-draw the scale of reactions to change to include the origin of the new, the visionary, which ID had not clearly articulated. The intentions were the same as for most assessments, allow for wide divergence in clients' views, attitudes, values, and behaviors, recognize the diversity with which they and their colleagues face change and aid clients in choosing approaches to change that consider both short and long term aspects.

The market was being surveyed for similar tools which turned up in a number of related questionnaires but nothing that specifically dealt with the individual's approach to change and the temporal aspects of long and short range thinking. Kirton Adaption-Innovation Inventory (Kirton, 1976) had many similar components, but looked at the different ways individuals approached decision making with no obvious connection between time orientation and the type of decision made. The research of Thoms (2004) described characteristics of managers based on a temporal continuum of past, present, future which later helped validate the FSA approach. She created her own questionnaire focused on temporal orientation to use in her research.

Foresight Styles Assessment was also fueled by an ecological understanding that our short term behaviors were creating problems that were untenable. The results of earlier short term behaviors, the growing gap between rich and poor, the pollution of

both water and land, the drastic climate change became tangible statistics in our lives. Those problems are coming at an increasingly swift pace. More understanding about how we respond to the changes necessary to survive such drastic times is needed.

There were a number of assumptions that influenced the foresight theory.

- Individuals have a greater affinity for and can be placed upon a temporal spectrum of past - present - future. (Thoms, 2004)
- Human kind is in the process of changing from one world view to another which will mean a huge conceptual shift.
- Individuals have a greater or lesser need for structure.
- Individuals have a greater or lesser affinity for activity as described by the continuum for: instinctual behavior, development directed behavior or action oriented behavior.

Biological/Cognitive Capacity

With the underlying goal of survival, humans make choices which represent and explain the way the workings of the world are understood. In addition, evolutionary development has endowed Homo sapiens with genetic and physiological capabilities that allow them to do what no other animals can; form their future. Lasse Berg writes in "*Gryning över Kalahari*" (Dawn over Kalahari) (Berg, 2005) of how researchers in a variety of fields have revealed the process by which we have become human. He begins with primates and their larger brains. They are the source of human cognitive capability for planning and long range thinking. Specifically, it was the cerebral cortex that increased the size and volume of the brain. Later, the ability to speak brought with it an ability to think not only about what is, but of what might have been if... It becomes clear that certain parts of the Homo sapiens brain developed toward planning and envisioning. Antonio R. Damasio in *Descartes' Error* documented what happens when human behavioral abilities of planning, envisioning and considering consequences disappear. One's ability to make productive choices and respect for social convention become non-existent and all sense of personal and social responsibility is gone.

Images of future consequences that could be avoided or embraced were made into stories (scenarios) of warning or happiness and success. Mental pictures are connected to the ability to plan and decide on a course of action and social response most advantageous to the future. These abilities lie in the prefrontal cortexes of the brain. Damasio emphasizes that the evolutionary nature of foresight is a part of human survival which nature has deemed necessary. From an evolutionary standpoint envisioning or seeing mental pictures enhanced survival (Damasio, 1994).

While possessing neurological structures that facilitate planning and long range thinking, there are ways of derailing them. Antoine Bechara, at the University of California Los Angeles, Institute for the Neurological Study of Emotion and Creativity relates that the mechanisms behind delayed gratification suggest that two systems in the brain, both neural, appear to have control when we make decisions (Bechara, 2005). They are "an impulsive, amygdale system for signaling pain or pleasure of immediate prospects, and a reflective, prefrontal cortex system for signaling

pain or pleasure of future prospects." (p.1458). If the stimulation of the impulsive system becomes high it can override the reflective system. This is another side of future orientation, which instead of fulfilling the vision, gives up activities and habits that would enhance the vision. In turn, the reflective system can be placed in control by having learned social rules.

Orientations, Needs and World Views

Holistic or dual process thinking¹ as a part of foresight

Currently, there are a number of researchers from inter-cultural perspectives as well as cognitive and social psychology that are trying to define thinking processes and define the world views they represent. It seems relevant to consider the effect that strong influence of one, or another world view might have on the style with which individuals react to change. Holistic thinking is summarized as a spectrum, from the ability to see the larger picture with all its messy detail, to rational analysis and discussion. Holistic thinking has been studied in terms of cultural differences between Koreans, Korean Americans and Americans in a number of studies by Seoul National University. In *Individual Differences in Analytic versus Holistic Thinking* they used their *Analysis-Holism Scale (AHS)* with which they measured the tendency to analytic versus holistic thinking (Choi, Koo, & Choi, 2007). AHS has four subscales encompassing, holistic causality or everything-is-connected; attitudes towards contradictions or when the midpoint of a behavior scale is preferred; perception of change or nothing-is-forever and locus of attention or the whole is more important than its parts. Holistic thinking is learned cultural beliefs about the scope of the context to be considered, the rhythm of change, the proper reactions in conflict situations and context and the causes behind behavior in relationships.

A related study looks at individuals from different Asian countries and Americans. There they found an Asian tendency to contextualize and an American tendency to use general dispositions when describing individuals. In other words, Americans are individual-centered, placing responsibility for both good and bad traits on the individual and Asians are situation centered, the situation and system surrounding the individual is used in descriptions (Choi, Nisbett, & Norenzaya, 1999).

Its western counterpart, dual processes thinking is distinguished by "fast, automatic and unconscious" or "slow, deliberative and conscious", although Jonathan Evans reports (Evans, 2008) that there are no definitive resolutions on these descriptions and that there are "multiple kinds of implicit processes described by different theorists and... that not all of the proposed attributes of the two kinds of processing can be sensibly mapped into two systems as current conceived" (p.2). The whole discussion of thinking systems is extremely complex, but simplified somewhat by careful observation of the ways in which Asian and American researchers attempt to research similar phenomena.

Another way of seeing the holistic/dual thinking problematic is related by Emma Butchel & Ara Norenzayan. "...holistic and analytic thinking are in many ways very similar to the dual process theories that have been described by Western cognitive psychologists, and in fact the cross cultural evidence supports the plausibil-

ity of this distinction. However, the emphasis on holistic thinking that has occurred in East Asian societies may also have led to the development of a more sophisticated kind of non-analytic thinking than in the West (as cited in Evans & Evans (Eds.) 2008).

Temporal orientation

Two other issues that are related to an individual's response to change and the future are directly from "Florence Kluckhohn, the famous anthropologist": temporal orientation (past-present-future) and the action orientation, intuitive acting/becoming/doing orientation. (Kluckhohn, 1961). Kluckhohn called them orientations (1961). When referring to any such scale we might apply the work of Florence Kluckhohn, the famous anthropologist, who called them orientations (1961).

Value orientations are complex but definitely patterned (rank-ordered) principles, resulting from the transactional interplay of three analytically distinguishable elements of the evaluative process, the cognitive, the affective, and the directive elements, - which give order and direction to the ever-flowing stream of human acts and thoughts as these relate to common human problems. (p.4).

FSA delineates six "styles" using a group of thirty-five questions. The styles, as we have said, are most influenced by four factors, holistic /dual-process thinking, temporal orientation, activity orientation and structural orientation. The temporal factor, a continuum with three points, the past, the present and the future, is directly related to how individuals react to change. Each of the FSA styles (descriptions below) has a related temporal orientation. (See table 1)

Table 1.
Foresight styles and related temporal orientation

Foresight Styles Assessment	Temporal orientation
Futurist	Future
Activist	Present/Future
Opportunist	Present
Flexist (Leading group)	Present/Future
Flexist (Later group)	Present/Past
Equilibrist	Present
Reactionist	Past

Linear time is the progression from the past to future, moving only in one direction. It is an integral part of the current, although fading, Newton/Descartes paradigm highlighted by linear, mechanistic and rational thinking. It is the pervasive world view upon which industrial society has supported itself for over three centuries.

Non-linear time

There are a number of ways to look at "metaphors of time" (p.386) as Sohail Inayatullah aptly named them (Galtung, 1997). Some come from inter-cultural communications and psychology giving us cyclic time, and events related time and a corollary, episodic time (stories and sequences of events in personal memory). Cyclic time is most often linked with the movements of nature, the seasons and the coming of day and night. It was documented, for example, in Vedic literature of India and was the concept behind the Mayan calendar. The term cyclic time is sometimes used as the antithesis of linear time. Events related time is recognizable and typified by old African story tellers who express time by events, natural or otherwise; the great storm, the time the roof collapsed etc. Events related time continues to live on in modern times. A tourist on an outing to an American Indian ritual dance has no schedule; it begins when everything is ready.

That we are currently dominated by linear time (Condon, 1988) in no way indicates that this is the only temporal influence upon foresight that should be considered. In describing twenty macrohistorians, Galtung and Inayatullah (Galtung, 1997) describe the tempus of each of them as a metaphoric shape. The shapes are characterized as cyclical/river (flowing as in a river), cyclical, linear, linear/spiral, oscillating, life cycle, evolutionary, a pendulum, rise and fall, multilinear, and equilibrium/cyclic (p.246). Different historical, cultural and geographic perceptions of time lie behind these shapes.

Masini writes about scientific world views or paradigms (1993): "In the twentieth century this deterministic view [Newtonian system of mechanics] was modified and completely superseded by the Einstein theories of relativity and quantum mechanics, the latter being the cornerstone of modern physics, is possible to imagine that the relativistic concepts in Einstein's theory might allow people to be more accepting of different temporal influences" (p.39).

Nuttin and Lens (1984) take up future time perspective, that is the amount of time and energy that goes into thinking about the future. Zimbardo and Boyd look at past-present-future time from the perspective of the individual (Zimbardo, 2008). Six perspectives are offered: Past (negative and positive), present (hedonistic and fatalistic), future and transcendental future. Their book points out that one's perspective on time causes positive and negative results in everyday life and encourages an individual who is unhappy to change his/her perspective toward time.

Thoms has done exciting research on temporal orientation and focused it upon managing. She has looked at a number of instruments and tested some many times to see how many different dimensions made up future time perspective. Two out of three (one of those belonging to Zimbardo and Boyd) showed future time perspective as one dimensional and presents a logic base for considering an individual's time perspective as very predictive of how they respond to change. Thoms states, (Thoms, 2004) those with a futures perspective "are driven by the future".

Transformational leaders change their organizations and change the world. They create visions of the future and invite the rest of us to join them in their efforts to achieve the dream. They are continuously challenging the ways that things have

always been done, trying new approaches, taking risks, and inspiring followers to achieve the vision (p.7).

Thoms introduced the concept of Temporal Alignment, of which future time perspective is a part. Temporal Alignment is unique to each individual. Below are short profiles of the three temporal alignments:

Future oriented people:

- Think about the future all the time
- Orient all their actions to the future
- Visions of the future motivate them; it is their "motivational space"
- Enjoy talking about the future
- Are good at visioning and their visions are positive and complex
- Pay attention to the external environment

Present oriented people:

- Are skillful at tracking progress and scheduling events
- Know where all the players are and what they are doing daily
- Are good at gauging reactions and monitor what others are doing
- Are aware of strengths and weaknesses in their lives
- Get things done the right way
- Focus completely on the present

Past oriented people:

- Reward past behavior
- Continue to praise and include individuals who contributed to group
- Build a strong sense of loyalty and pride in organizations
- Recall the past in such detail as to preserve older buildings
- Have access to patterns from the past that can affect the future (over the past 10 years) (Thoms, 2004)

Short and long term thinking:

Foresight Styles Assessment was initially motivated by differences in temporal orientation between the business world and futures consultants. Business, with its short range approach, was a difficult match for the long range thinking found in the fields of organizational consulting and futures studies. The short range orientation of organizations is a consequence of specific laws that have brought corporations into existence and have prescribed their major goal; to make money for shareholders. (Bakan, 2004). As predicted in Drucker's 1976 book, *The Unseen Revolution*, the 90's became the period of hostile takeovers by those who equated performance with immediate, short-term shareholder gains (Drucker, 1992). One well known ramification was quarterly reports on measurements tracking financial success or failure. In that situation, it is easier for business leaders to see the effect of short-range decisions on the bottom line than it is to unravel the complex (i.e. systemic) economic results of a long-range strategy (Drucker, 1992). Drucker claims "we cannot relate the short term to the long term

and yet the balance between the two is a crucial test of management" (p.30). Learning to balance takes time, during which business life has become even more global.

Quoted in Harvard Business Review, Javidan discusses the part of his research that has to do with "future orientation", short to long-range thinking, as manifested in 17,000 middle managers from sixty-one cultures. Agreement was measured on a seven point scale to statements directed to them personally and to their culture groups. The cultures varied with Singapore displaying the highest level of "future orientation" and Russia with the lowest "future orientation" (Javidan, 2007).

Propensity to Action

Being/becoming/doing is an orientation, a range of human propensities to action or "the nature of man's mode of self-expression in *activity*" (p.16), reports anthropologists Florence Kluckhohn and Fred Strodtbeck. (Kluckhohn & Strodtbeck, 1961). Being is related to the spontaneous way human beings satisfy their impulses which has nothing to do with passivity or development. It lies nearer instinctual behavior. Becoming is expressed by Kluckhohn's quote from Erich Fromm (as cited in Kluckhohn & Strodtbeck, 1961), "...a quality of the creative activity which can operate in one's emotional, intellectual and sensuous experiences and in one's will as well" (p.16). It has to do with development. Doing is dominant in Western society and is characterized by "...the kind of *activity* which results in accomplishments that are measurable by standards conceived to be external to the acting individual" (p.17).

Being, becoming and doing describe the activity relationship we have to our total environment. We can be accepting within our environment, living instinctually with a certain amount of "flow" (Csikszentmihalyi, 2004), we can try to understand the workings, patterns and systemic connections in our environment, and we can take action in order to bring about change. The being, becoming and doing continuum influences how each of the styles individualize themselves. In practice, a Futurist (see below), focused upon "being", is totally involved in his or her work, enjoys the work, doesn't make a conscious effort to develop, and does not contribute to any active role in creating change. A Reactionist who does something proactively to stop or slow down a change that should not take place is taking a moral stand. On the other hand, the Reactionist highly involved in being, misses the changes buzzing around him or her and any active tendencies are muted. The Activist is a natural doer, who may find those individuals who could be seen as followers are in reality more being or becoming oriented and rarely contribute to the doing.

Structural Orientation

Individuals have varying degrees of personal need for structure (PNS) which enables them to make sense of the world around them, to form and maintain a clear perception of their own lives as well as in the organization. (Thompson, Naccarato, & Parker, 1989) High personal need for structure implies a need for information and rules about the topic at hand. A high personal need for structure appears to correlate with a personal fear of invalidity, that is to say, fear of lack of validity, cogency or

acceptance by the larger group (Clow & Esses, 2005). In addition, when confronted with a proposed change, a personal need for structure can include a need to know what to expect, the need to maintain a daily routine, the fear of unpredictable situations and people, unclear and new rules, activities and expectations. Michael Kirton (Kirton, 1976) mentions individual need for structure in relation to his research into the creativity needed for decision making.

The assessment PNS originally came from the Canadian military and has been applied in a number of research settings having to do with decision making. This is a difficult area as many of the cognitive styles have related characteristics. Besides structure and invalidity, tolerance or intolerance of ambiguity plays a role. There is definitely a range of styles from those who are comfortable with not knowing everything to those who prefer situations or stimuli that are black and white. Many assessment approaches are being tested for how well they correlate to one another and their validity as separate cognitive characteristics, for example the Tolerance of Change scale, developed as a self assessment.

In terms of foresight and the ability to creatively illustrate possible future scenarios or visions, a need for structure negatively affects our ability to think long range and plan while a greater ability to handle abstraction enhances it.

Six FSA Styles

Each Foresight Style is explained here in an abbreviated version of that found on the feedback document received by each individual after taking the assessment.

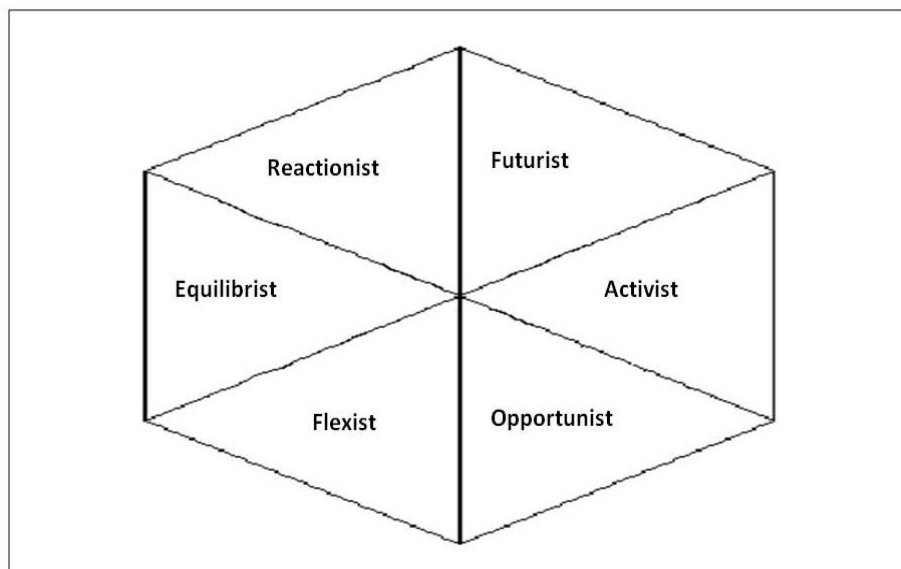


Figure 1. Foresight styles

Futurist

Futurists have two sides: One side distinguishes between trends and fads, seeing trends far earlier than everyone else, far sooner than their breakthrough in the public media. Futurists tend to think in terms of 5 to 20 years or more. They see these trends because they are knowledgeable about historical and societal patterns that others find irrelevant. They understand that trends have both a positive and negative character. They are neutral observers of what is happening in the environment around them. Futurists are oriented primarily to the future with an eye to related past events.

The other side of a Futurist works to put forth messages that communities, politicians and companies need to hear. The messages tell of possible consequences of behavior and what might be expected in the future.

Futurists always look for perspective; trying to see the whole picture. They believe that everything is connected and have little trouble understanding systems and how they work. They understand that systems go up and down and that failure today could open the door to successes tomorrow. They facilitate and support the development of best possible futures.

Futurists' ability to see so far into the future is a handicap when working with other styles. While some may find their insights interesting, they don't see relevance to their budgets and their action plans.

Activist

Activists are not satisfied with studying the future, but take measures in order to see that the best future is realized. They often gain insights from Futurists and spread them. They are motivated by a strong commitment to what they do, whether it is changing a part of society that isn't working, or creating a new product that will make life easier or better.

Activists determine a course of action and commit themselves to that cause, expecting that others will be equally enthusiastic. Their role is to introduce new ideas and innovations into the system or to fight for the implementation of a new system. Activists work in a divided time-frame of present/future. The division is between the need to propagate for instant change, all the while knowing that realistically many changes, both technical and social, take time.

Opportunist

Opportunists' driving force is surviving in the present. Opportunists try to change the future by assuring that the present is as good as possible. Quick changing fads and short-term goals are often the venue of the Opportunist. There are positive and negative sides to the Opportunists as there are in all the styles. Positive Opportunists are also good fund raisers for Activists' humanitarian causes and can keep funds flowing into an organization, enabling research and development among other benefits. On the negative side, Opportunists may be so focused on income that they lose the chance to reflect on the whole picture. The worst case scenario is an ethical breakdown. Opportunists don't attempt to solve the problems of the world, but contribute by doing the best possible for themselves and those around them and expect that others will do the same. This is a linear-oriented style which relates to one issue at a time. We need

the Opportunist style to assure that things keep moving. On the other hand, a system that encourages too many Opportunists has no vision and soon collapses.

Flexist

Flexists also get things done; often administrative tasks like planning and organizing. Flexists are grounded in the present, but are often curious about new innovations which can improve survival capacity. These new innovations often come from Futurists or Activists. They need Flexists, who are the integrators of new ideas, to swell the numbers of users to reach the critical mass necessary for change. Flexists have the power to implement such change or to deny it. As with all the styles, Flexists are driven by survival.

Because Flexists are the pivot upon which the speed of any change rests, it is important to look at the Flexists spectrum. At one end we have, what we call, Leading Flexist. They are more likely to become interested in the ideas put forward by Futurists and Activists and adopt the new concept, behavior or innovation. Experts who advance these ideas are especially convincing to Leading Flexists. Their enthusiasm opens other Flexists to the advantages of the new idea. At the other end of the spectrum we find Later Flexists, those who adapt the new idea after it has been tested by many others. Their sources of information are not only experts but colleagues, trusted friends and family members who have successfully integrated the change. From them, they can truly get a feel for the advantages and disadvantages, and thus avoid any teething problems that may have popped up earlier in the change cycle.

Equilibrist

Equilibrists see survival as a matter of staying in balance. They don't always understand that this need for balance is grounded in an innate and basic understanding of systems and how they work. Equilibrists strive to maintain balance but change is an unavoidable characteristic of systems. What Equilibrists often do not understand is that systems strive for a balance that never occurs. A system in balance would mean homeostasis and there would be no exposure to stimulus, positive or negative. It is difficult for the Equilibrist to explain or to argue for or against a given change; they just know it would be a disruption. The Equilibrist is drawn to others who like balance and less change, thereby building group solidarity which encourages equality.

Equilibrists accept that keeping things as they are does not mean that they are perfect. They easily admit to existing problems, but only offer ways to avoid the problem as evidence of the system's innate flexibility. Unfortunately, this sometimes takes the form of negative behaviors such as: keeping quiet, putting up with things, small thefts, etc.

Equilibrists work in the present. They are positive in that they keep the organization running, negative because they don't understand the gains which change could bring. Maintenance and replacement are the only needs acknowledged. The thought of a reinvented organization or any large-scale change is difficult and Equilibrists may be mistaken for Reactionists by their response.

Reactionist

This style plays an interesting role in assuring organizational survival. Most people usually see the Reactionist as a style that holds the organization from change and future development. This can be both good and bad. It isn't hard to see why it is bad, as Reactionists often have trouble comprehending the reason for change and or agreeing that planned benefits are worthwhile. The negative Reactionist finds the unknown as more of a survival threat than the known (even if the known is not good). Yet, the Reactionist style has the roll of keeping the Futurist, and sometimes the Activist from getting out of hand as in the case of whistle blowers. Change for change sake isn't always good.

The Reactionist has his/her eye on the past, seeing the good and the secure and what is still working.

In summary, The Futurist portrays scenarios or visions of future possibilities. The Activist becomes inspired by the visions and scenarios painted by the Futurist. Often a specific portion speaks to their heart, their lives experience or knowledge base. In an ecologically sustainable scenario, the Activist might focus upon housing, transportation, or even relationships. The Flexist accepts or puts off these ideas and in the act of choosing, contributes on a scale of enthusiastically to reluctantly to the new vision. Opportunists do things that keep the system alive and nourished for the present, distracting the rest of the model from change, but keeping it alive and augmenting the current system with needed resources. The Equilibrist integrates new ideas into the existing system in an attempt to keep change from completely taking over that which is established. The Reactionist stops the process flat and forces the whole group to consider the losses of these new behaviors, ideas and actions.

Critical Elements

There is an attempt at conscious cultural sensitivity in the theoretical portions of this paper. The source of being/doing and past/present/future is from Florence Kluckhohn *Variations in Value Orientations*. Her anthropological research included five, dissimilar cultures. Holistic/analytical research is based in east/west thinking and influences dual processing. The author has tried to show how the current and incoming paradigms work together in foresight styles. Much of the evidential research in this paper was done on western managers and it is unknown if the results would be the same for an intercultural group. There has been no gender perspective considered. The author's values, FSA style (Futurist) and midrange structure need, have also greatly influenced the choices of evidential research as well as the topics.

Research Implications

The scope of this article has not allowed for a deeper look into all the research done in each of the four influencing areas, nor does it allow for necessary comparisons of others work to that of Foresight Styles. Recently, a re-validation of the six styles has been completed and will be reported upon. Some interesting questions are: What, if any changes needs to be made in the styles? Which assessment questions truly seek

information that responds to the style sought? The constellation of the four areas of influence on styles may prove more or less definitive in light of the magnitude of new research results. It is important to increase research in the above areas of foresight styles.

Summary

We all have the physiological/neurological capability for foresight. Foresight, like so many other human abilities, is manifest to differing degrees in every individual. Six styles representing those degrees of foresight are presented and discussed. The six styles include: Futurist, Activist, Opportunist, Flexist, Equilibrist and Reactionist. Foresight is intrinsically linked with change. Change comes whether we like it or not and how we react to that change is based upon the emphasis and combination of the six foresight styles that differ in each individual's profile. While foresight styles can be linked to at least some of the styles found in innovation diffusion research, the study of how social change takes place, the major focus is on adoption. Little discussion as to where new ideas originate is found in innovation diffusion. In Foresight Styles, the origin of new ideas is discussed in relation to the Futurist style. Four attributes are presented that influence the degree to which individuals utilize their foresight: temporal orientation, holistic or dual-process thinking, structural orientation and activity orientation. Studies show the relationship between remembering past experiences and thinking of future experiences to be neurologically very similar. Other studies link the ability to create good visions with a temporal orientation, specifically the future orientation. There is a great amount of work in the area of temporal orientation, and a growing body of research in the other three areas. These should prove helpful in bringing further insight to the foresight styles proposal. However, the author argues, it is not enough to understand foresight better, it is also important to apply that understanding to the major problems of today; climate change, sustainable energy, water and land degradation and poverty.

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Notes

1. Holistic is described from an Asian perspective and dual process thinking is described from a Western perspective are similar but include differing nuances given the perspective from which they are studied.

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