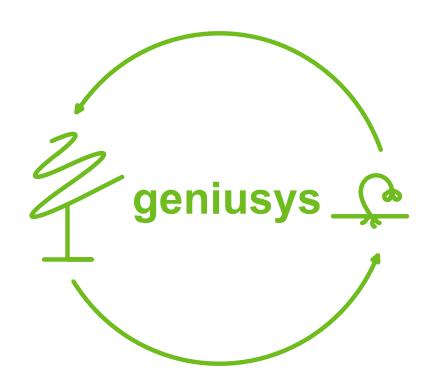
GeniusysSystematically developing genius

21st International System Dynamics Conference Workshop Proposal & Paper 20th - 24th July 2003



Rohita Singh
Rohita.Singh@geniusys.com.au
+ 61 401 929 544

Geniusys :Systematically developing genius

Geniusys	1
The Systemic World We Live In	1
The Case for Genius	1
The Systemic Mind	2
Filtering the World "Out There"	2
The Power of Beliefs	2
Magic of Meta-Programmes	3
The Self Actualising Balancing Loop	3
The Information Highway	4
Body Mind-body States	6
Primary States	6
Thinking about our Thinking – Meta States	8
The Communication Feedback Process	10
Leverage	11
Minimising Filter Adjustment Time	11
Flexibility of Cognitive Filters	11
Choosing Meaning to Create Primary and Meta States	12
Using Observation to Create Genius States	13
The Road to Genius	14
Bibliography	16
Appendix A	16
Appendix B: Proposal for workshop or parallel lecture	17

Geniusys

Systematically developing genius

The Geniusys model aims to model and replicate the structure of human excellence. It uses System Dynamics to model the structure of our thinking process and identify the leverage points in this complex dynamic feedback system. Identifying the leverage points allows us to focus our valuable resources on them in order to accelerate the strategic transformation process by:

- Minimising the adjustment time in flexibility of the filters in our mental models
- Maximising the range of flexibility of our cognitive filters
- Choosing the allocation of meaning to create primary and meta states
- Using observation to create genius states

The cognitive behavioural pschycology models of Neuro Linguistic Programming and Neuro Semantics utilise language patterns to change our thinking and subsequently, our behaviour. This allows us to convert our potential for genius into performance so that we can live our lives with excellence.

The Systemic World We Live In

Just as the last thing a fish notices is water, the last thing we notice is that from the moment we wake up in the morning until the moment we go to bed at night, we are immersed in complex, dynamic feedback systems. Even when we are asleep, reinforcing loops cause our bodies to repair and grow. At the same time, balancing loops in the hypothalamus region of our brain work to bring our temperature, blood pressure and other single points of stability to a level of homeostatic balance that keeps us healthy and vital. When we are enjoying a scrumptious meal, there is often a delay between our stomach being full and feeling full, a situation that we may regret when we feel bloated afterwards!

As our minds are not divorced from our bodies, our minds also consist of complex dynamic feedback systems that we use to navigate through this magical adventure we call life. The more we understand our thinking processes, the easier it is for us to determine the points of leverage that we can utilise to change our behaviour, leading more empowered lives built on intentional action.

The Case for Genius

We are all born with a seed that contains our potential for genius. What we do with this seed is a choice that will shape the very quality of our life's experiences. The likes of Leonardo da Vinci, Mozart and Einstein planted this seed in the fertile soils of their imagination, nurtured it with curiosity, perseverance and inspiration, until it bore fruits of great inventions. It is up to each of us to plant and nurture the seed that contains our potential for genius so that it too may grow and bear fruits that enrich our lives. One way to do this is to develop our thinking process.

We are taught many things when we are youngreading, writing, history, geography, facts, figures, what to think and how to do things. Although this teaches us how to do things, we are seldom taught how to think in order to develop our creativity, motivation, perseverance and other facets of genius. The reason for this is that to most of us the mind is a mystery that is better left to the towering intellects of philosophers and psychologists to ponder. But imagine trying to programme a video recorder without reading the instructions. We might be lucky if we are able to set the time, loosing out on the real purpose of the invention. If you had the instruction manual for developing your genius, would you use it?

The Systemic Mind

All our behaviours arise from our thinking. Internal thoughts always precede our external interactions in the world. Most of the time we are not consciously aware of our thinking. As a result we can lead very reactionary lives where people "do things to us" and have the power to hurt us. "It is not my fault"; "my wife doesn't understand"; "my husband doesn't listen"; "my boss makes me really angry", "I can't change, that is just the way that I am". When we live our lives with these mindsets, we give our personal power away. We can only change our lives for the better when we realise that we live in a reality created by our internal model of the world. When we acknowledge that we always have a *choice* about how we *interpret* someone else's actions, then no one "out there" has the power to hurt us.

Recent developments in the fields of Cognitive Behavioural Psychology and Systems Theory have now evolved enough for us to use these powerful tools to unpack the black box of the cognitive behavioural process to allow us to identify the leverage points in this system¹. The resultant Geniusys model aims to assist us in converting our potential genius into performance, enabling us to create generative change in our lives. This article will now explore the complex dynamic feedback structures that make up our thinking process and the Geniusys model.

Filtering the World "Out There"

External reality "out there" physicists tell us is ultimately nothing more than a dance of sub-atomic particles. We literally live in a fantastic "energy soup" which is far vaster and infinitely more complex than we can perceive. The reason for our limited experience of this reality is that the make up of our five senses allows us to choose less than one *billionth* of the waves of energy that we are constantly bathed in. For example, within the range of electromagnetic waves, the limitations of our sense of sight allow us to only perceive visible light. Similarly, dogs can hear ultrasonic frequencies than are far beyond our capabilities. Snakes "feel" the vibrations in the air with their tongues in entirely different ways that we feel with our skin. The first level of filtering takes place when raw data or sensory input from the external world comes into contact with our five senses.

The next layer of filtering occurs when these primary sensory inputs reach the thalamus region in our brain and are subsequently interpreted in the cerebral cortex. Several layers of cognitive filters play their part and further limit the information we use for decision making, by distorting, deleting and generalising the raw sensory input.

The Power of Beliefs

Two of the more important cognitive filters that we will explore are our belief systems and Meta-Programmes. Belief systems are the most powerful cognitive processes, as they influence almost all the remaining cognitive process as well as our experience of the world. When we affirm thoughts by making them "true", we promote them to beliefs. As I write this article, Canberra is in a state of emergency as lethal Australian bushfires ravage the countryside laying siege to homes, property and occasionally even lives. Some people believe they are incredibly lucky to have escaped with their lives, even though they have lost their homes. Others cannot believe their misfortune at having lost their homes.

-

¹ See Appendix A for a brief summary and description of these models.

If you believe that the world is a dangerous place and people are out to get you, it doesn't matter how kind and helpful someone tries to be, your belief system will limit your experience and prevent you from experiencing their kindness. Over long periods of time this structure of human experience becomes habitual and can lead to pessimism, depression or paranoia. If you believe that everything happens for a good reason, you will find the lesson or the positive side to every experience you encounter, no matter how challenging the situation might be. This is the belief system of an optimist.

Magic of Meta-Programmes

Meta-Programmes (MP) are our perceptual filters. These filters define our style of Conceptualizing, Cognising, Emoting, Choosing and Responding to the external world. These five categories are further divided into fifty-one sub categories, each of which operates on a continuum. The example of the bush fires is an example of exploring the Scenario Thinking Meta – Programme. Optimism and pessimism are two opposite ends of this Meta-Programme that falls into the Cognising style category.

Not all fifty one Meta-Programmes are active all the time in everyone. Most of us have a few "Driver" Meta-Programmes that are often close to the extremes of the continuums and therefore can be observed as dominant traits of our personality. Which Meta-Programmes are active at any given time is highly dependant on context.

One of my driver Meta-Programme is "Matching". This falls into the Cognising style category and defines how I process or sort incoming information. Most of the time I sort incoming information by seeing how it is similar or the same as what already exists in my mental model. This applies to new people I meet, ideas I comes across, information I read etc. If I lacked the flexibility of moving along this continuum towards the Mismatching end of the continuum and sorting for differences, I would be challenged to come up with a differentiator when working on the marketing plans for my business

The more flexibility we have in our Meta-Programmes, the more choices we have in our range of behaviours as we navigate through life. This also helps us to build rapport with a more diverse range of people as we adapt our behaviours to their Meta-Programmes creating a greater sense of empathy and improved communication.

The Meta-Programme model differs from other personality mapping models in two ways. Firstly, it recognises the dynamic nature of our cognitive behavioural processes by emphasising that people's responses will change over time depending on the context they are in. Secondly, it goes down to a greater level of detail and gives us a richness of texture of the structure of human experience.

Together, these sensory and cognitive filters reduce a vastly complex external reality to our internal "mental model" of the world. It is through this reduced mental model that we create our internal experience of the world. This explains how a group of people can go to the same movie and come away with totally different experiences.

The Self Actualising Balancing Loop

The difference between our model of the world and the energy soup of external reality creates a gap. This gap is what motivates our most basic need for growth and development. Maslow, in his

hierarchy of needs, coined this as the need for Self Actualisation. As we move through life in search of our own truth and higher purpose, we seek to reduce the size of this gap by increasing the rate of flexibility of our filters. This enables us to create richer, fuller more resourceful maps of the world more quickly as we reach new understandings that bring us closer to a better representation of the external reality. This creates a goal seeking balancing feedback loop which we will call the Self Actualising Balancing Loop. Systems Dynamasists will recognise this structure as a first order linear negative feedback system with the goal of reducing the size of the gap between external reality and our model of the world.

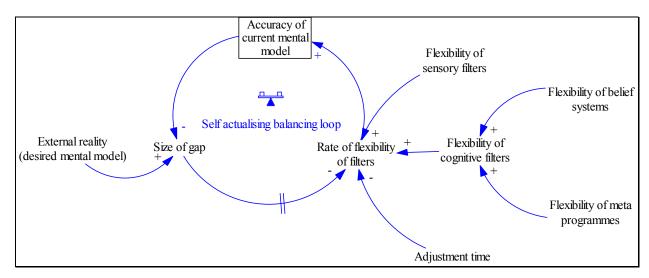


Figure 1: Self Actualising Balancing Loop

The Self Actualising Balancing Loop consists of a flow of raw sensory data from the external world. Once this is filtered by our senses, it is converted into a flow of neurological impulses that determine our states of mind and body. Three variables contribute to the rate of flexibility of our filters. These are: flexibility of our sensory filters; flexibility of our cognitive filters; and the adjustment time taken to develop the flexibility of our filters. On a sensory level as our eyesight deteriorates and diminishes the flexibility of our sight senses we seek to correct it by using glasses or contact lenses. The flexibility of our cognitive filters is harder to adjust and usually incurs delays. Most of us leave this to the domain of experience. Experience is an expensive lesson as is demonstrated by the quote "Experience is a hard teacher because she gives the experience first and the lessons afterwards". Due to the delays, the adjustment time taken to increase the rate of flexibility of our filters using this strategy can take years, if not decades. Later sections of this article will explore how we can use the Geniusys model to drastically reduce the adjustment time, reducing the delays and accelerating the process of our growth and development.

The Information Highway

Have you ever wondered how your heart knows how to beat....rhythmically supporting your life's experiences from even before you are born, till the end of your days? How does your body know to heal that cut you received while you were chopping vegetables? How does your left leg know when to contract its muscles to lift the left foot with clockwork precision in relation to the right foot, to create this experience you call walking? All through our lives we move through the external world, oblivious to the beauty and perfection of the microcosm we contain within. To the bacteria that live

in our gut, our digestive tract is their whole world. Our bodies are their entire universe. So how does this internal universe know how to function?

According to traditional scientific theory, information flows within our bodies because the neurons in our brain and central nervous system create intricate links that make up a complex electrical system of neural networks. Each neuron consists of its cell centre separating its tree like dendrite from its long tail like axon. Between the dendrite of one neuron and the axon of another lies a mysterious gap called the synaptic cleft. An electrical discharge was thought to occur across this gap resulting in the flow of information through our bodies.

Recent developments in more sophisticated measuring devices have shown that these electric discharges are a result of chemicals called neurotransmitters crossing the synaptic cleft. These neurotransmitters carry very basic binary messages (on or off) that govern whether the receiving cell will discharge electricity or not.

Neurotransmitters (acetylcholine, norepinephrine, dopamine, histamine, glycine, GABA & serotonin) are not the only chemicals to make a mad dash across the synaptic cleft. Other chemical that behave this way include steroids (testosterone, progesterone, oestrogen, cortisol) and peptides (insulin, endorphin, oxytocin). Together this class of protein molecules are called ligands, from the Latin word *ligare* – that which binds. So what do these ligands bind to?

On the surface of every cell, we have molecules of proteins called receptors. Receptors float on the surface of our cells and have roots deep in the cell membrane. A single neuron may have millions of receptors on its surface. Each receptor molecule vibrates with its own unique signature. Just as our eyes, ears, nose, skin, and tongue sense and filter our external world, receptors sense and filter the external world of our cells. When receptors "feel" a ligand which corresponds to its own unique signature, a diffusion like process called *binding* takes place. The ligand "binds" to the receptor, releasing a burst of information into the receptor. The receptor carries this information deep inside its cell, kick starting all kinds of chemical reactions that govern the life of each cell.

Unlike neurotransmitters, peptides and steroids carry far greater variety of messages than the simple on and off states of neurotransmitters. Neurotransmitters are largely created in the brain. For this reason, we can be forgiven for viewing our internal information highway as being like a telephone exchange system with the brain acting as command centre. In fact, ligands are produced in the brain, central nervous system, endocrine system and even the intestinal tract. They are even produced discretely and locally by certain cells in a specific response to changes in their immediate environment (eg changes in the diameter of minute air passages in the alveoli). Peptides move, not only across the synaptic cleft, but also through the blood and cerebrospinal fluid, reaching receptors across the farthest reaches of our internal universe.

Very little of the behaviour of our body's 75 trillion cells is governed independently of these little messenger molecules. On a macro level, this cellular activity compounds into creating our internal physiological (changes in breathing, growth of muscle tissue, secretion of hormones), cognitive (formation of mental models) and physical (words and actions) responses to the external world. The exciting new field of psychoimmunology (PNI) is leading the way in research on the role that our brain and thinking processes play in influencing our immune system. For now, I have chosen to call

this process of releasing of ligands and binding to receptors as the flow of neurological impulses. We will now explore how these neurological impulses fit into thinking process and physiology.

Body Mind-body States

What are you thinking and feeling right now as you read this article? Are you feeling relaxed, sitting comfortably in your chair and curious about what you are reading? Are you excited about learning new things that could help you live a more empowered life? Are you confused by the unfamiliar ideas and terminology? (If you are feeling the latter, that's great – confusion is the gateway to new learning experiences!). However you answer this question is the mind-body state that you are in right now.

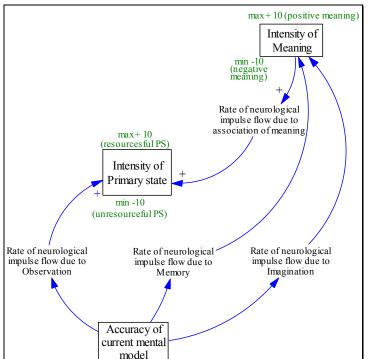
We are constantly in mind-body states every single minute of our lives. Even when we are asleep, we are in mind-body states of rest and relaxation. Most of the time we are simply not aware of the states we are in and do not have the skills to actively manage them. This means that we do not always have the right states to match the situation we find ourselves in. Have you ever been

-irritable in a traffic jam or catching the train in the morning rush hour on your way to work?
- ...Found yourself angry at a client or co-worker during a meeting?
- ...Distracted at work on a Friday afternoon, anxiously looking forward to the weekend?
- ...Tired or irritable after work whilst trying to spend quality time with loved ones?

These common situations are examples where the Geniusys model can help us to manage our thinking so that we can choose more appropriate states. The ability to actively manage our states is the first major milestone on our journey along the road to genius.

Primary States

Whether we access them intentionally or move through them subconsciously, the traditional view of state management is that there are two "royal roads" to mind-body states: memory and imagination. The Geniusys model extends this to state that we create our mind-body states via three flows of neurological impulses caused by memory, imagination and observation. When we think about the past we are using memory ... "remember a time when...". When we think about the future we are utilising our imagination ... "what would it be like if ...". Most of the time we tend to live in the past or the future. When we reach high levels of personal mastery or genius, we can slip into moments of pure observation where we are living in the moment. This is the closest we get to observing external reality as it is.



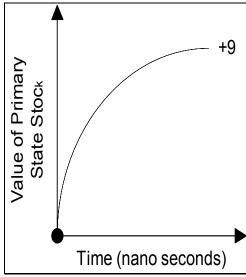


Figure 2: Formation of Primary States

Figure 3: Behaviour over Time graph of Primary State giving + meaning to a hug

Once we have filtered information from the external world via our mental models we use associative thinking to give *meaning* to the external event. Usually this takes place because of our past memories, or future imagination and results in mind-body states called Primary States. The intensity of Primary States is represented here as stocks. These stocks are formed by the rate of neurological impulses that flow due to the association of meaning that we allocate to external events that have been filtered through our mental models. Primary states can be resourceful eg joy, happiness, love etc (their intensity represented by values between 0 and +10) or unresourceful eg fear, anger etc (their intensity represented by values between 0 and -10). The rate of neurological impulse flow that creates Primary States is dependant on another stock that represents the intensity of meaning we give to information that has been filtered by our mental models. If we give positive meaning (eg value, appreciate etc) we create meaning stocks with positive values. This in turn leads to positive Primary States. Figure 3 shows a behaviour over time graph of a positive Primary State that is created by giving an intense positive meaning to a hug (by appreciating or valuing a hug).

Most of the time the meaning we give to events is triggered by associative memories that are buried deep in our subconscious, often due to previous conditioning. When we are infants we have no hesitation about playing with fire because we have no associative memory of fire being dangerous. As adults, we don't even have to stop to think if playing with fire is dangerous.

Primary states are usually an internal response to an external stimulus that has been filtered through our mental maps. They are often characterised by physiological changes in our bodies due to the flow of neurological impulses. These can be as noticeable as the hot flushes, sweaty palms, shortness of breath of anxiousness or as subtle as biochemical reactions in the body. Primary state responses

are largely outside of our conscious awareness. A good example of this is the effect that stress has on our physiology and metabolism. Stress is a state that is triggered by our *perception* of external threat, not necessarily the threat itself. Nature created the flight or fight response in order to protect us from saber tooth tigers. In today's complex world, we can perceive a situation at work, traffic, deadlines and other people's behaviours in the same way as we once did the threat of saber tooth tigers. The problem with this response is that under the healthy functioning of the flight or fight syndrome, our body releases flows of neurological impulses (eg secretion of cortisol, adrenalin, epinephrine, norepinephrine, movement of blood flow to major muscle groups etc) that break down our cells. This provides the burst of energy our body needs in order to defend ourselves or flee. Once the threat is over, our body goes back to functioning normally. The danger in modern society is that if we perceive we are always under some external threat (an important deadline, a job we don't like, hectic traffic on a daily basis), our bodies don't know any better and we continue to secrete chemicals that break down our bodies. Over time, this process leads to ill health and disease. Understanding how we create our primary states through imagination, memory and observation can help us to choose better responses to our external environment.

Occasionally we live in the present moment and create our primary states through heightened observation. We simply observe external reality and give it no meaning, creating a special case of primary state called Sensory Awareness. This is a highly resourceful primary state which is the basis for Genius States. This is the state of sitting by a warm fire on the weekend, savouring the delightful anticipation and rich aroma of the first sip of my cappuccino as I listen to the pitter patter of the raindrops on the tin roof of my favourite café. It is the peace of sitting on a cliff top at Bondi Beach, listening to the crashing of the ocean on the jagged rocks below, as I taste the salty air on my lips and drink in the sunset. This is the flow of creativity when I work with client to solve problems on new consulting engagements.

Thinking about our Thinking – Meta States

Part of the wonderful thing about being human is the ability to use our highly developed cerebral cortex to consciously *think about our thinking*. When we have an internal reflexive thought and as a result give *meaning to our primary state*, we create meta states. Meta states are not triggered by external stimulus but are created by reflecting on our primary states. These states in turn have an effect on our primary states and as a result we experience these states together as a combined mind-body state that over time can form very strong structures of human experience including values and beliefs. Eventually they *appear* to become *solidified* into personalities.

Two years ago I came home from a wonderful Easter break to the shock of finding my apartment in a complete shambles. The window to my bedroom had been smashed and the entire place had been ransacked. Clothes from my wardrobe were strewn across the kitchen. My jewellery box and its contents were in the bathroom and worst of all my laptop and expensive modelling software were gone. As I collapsed onto the couch with a sinking feeling in my stomach, I recalled the previous two times I had been burgled. In each case I had lost my computer, disks and information that was almost impossible to recover. In both cases the police had been unable to do anything about the incidents as burglary was considered a low priority by an understaffed police force. As a result I expected much the same reaction from them in this case. As I sat there thinking about the incident, I found myself getting more fearful and dejected by the incident. It wasn't long before I was telling myself to snap out of it and tend to the logistics of the situation. When I found I was still upset, I

started judging myself harshly for not being able to snap out of it. Pretty soon I found that my initial Primary State of shock along with my Meta States (dejection, upset, judgmental etc) had created an un-resourceful, self sabotaging reinforcing loop called a *dragon state*. If I had continued to build this structure of human experience over a few months, I would have found myself becoming paranoid and depressed. Over several years this would have become part of my personality.

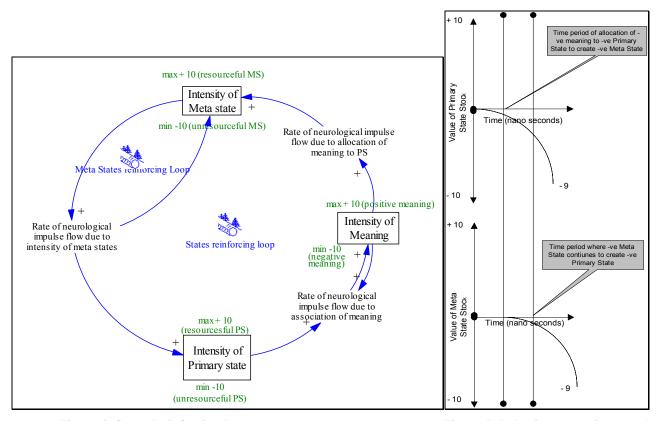


Figure 4: States Reinforcing Loop

Figure 5: Behaviour over time graph of burglary (PS and MS)

This example shows how the external event of a burglary, filtered by my mental models, created a flow of neurological impulses due to my memories of previous burglaries. This negative meaning created a flow of neurological impulses due to its associations, creating the initial negative Primary State of fear and sinking feelings in my stomach. The initial time period in figure five represents this mind-body structure, where there is a small negative Primary State and no Meta State. After a short time interval, as I continued to think about my Primary State allocating negative meanings to them, I started to create negative Meta State (dejection). In addition to this, the rate of neurological impulse flow due to intensity of meta states creates the Meta States reinforcing loop. This is shown by the second time interval in figure five where my Meta State starts its exponential decay, in turn accelerating the exponential decay of my Primary State. After this period, the intensity of my negative Meta State continues to increase the intensity of my Primary State and the reinforcing loop structure creates more intense negative Primary States, negative intensity of meaning and negative Meta States (dejection, self – judgement etc). At the same time, the Meta States reinforcing loop contributes to this structure, creating the dragon state self sabotaging reinforcing loop.

The Communication Feedback Process

The combination of primary and meta states create our overall mind-body states at any given time. Based on these states, we communicate to the external world via our words and action. This triggers events in the external world, through which we get feedback in the form of sensory input and the complex dynamic feedback process continues again.

The magic of all of this is that this process takes place over a period of *fractions of a second*. Scientists have clocked the speed of a nerve cell at 360km/h. A signal from head to toe takes less than $1/50^{th}$ of a second! The difficulty with measuring the rate of flow of neurological impulses makes it difficult to convert this conceptual model into a simulation we can experiment with. Future endeavours in neuro science research may provide us with valuable insights into how to accomplish this task. For now, there are still insights to be gained from the conceptual model. The complete Geniusys model that describes this process is illustrated below:

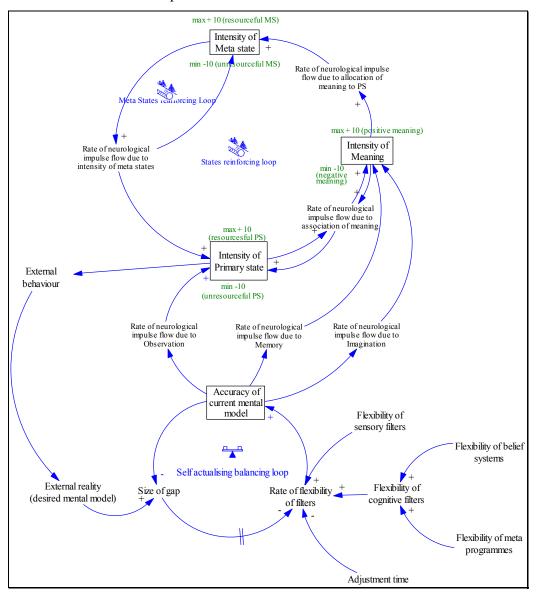


Figure 6 : Geniusys

Leverage

Many conceptual models of the thinking process have emerged as a result of thousands of years of ponderings by sages, philosophers and more recently psychologists. Models, by definition, are only a cut down version of external reality and so are never "completely right". The actual thinking process is so complex that if we were ever able to replicate it fully, we would be lost in the detail and complexity. Just as different tools are useful in different circumstances, I believe that the best way to judge a model is by its usefulness for the problem at hand. Under what circumstances is the Geniusys Model useful in?

The key advantage of representing the cognitive behavioural process using systems dynamics is that we can now identify the points of leverage in the system, accelerating the change process and allocating scarce resources appropriately to maximize our performance. Leverage is defined as *the difference* that makes the difference. The Geniusys Model identifies the following key points of leverage:

- Minimising the adjustment time in flexibility of the filters in our mental models
- Maximising the range of flexibility of our cognitive filters
- Choosing the allocation of meaning to create primary and meta states
- Using observation to create genius states

Minimising Filter Adjustment Time

We can rarely influence the sensory input we get from the external world. Similarly, the mental maps we currently operate from are the result of years of living and social conditioning. This is because most of us form our cognitive filters by learning from our experiences. Language patterns allow us to shape our filters in a wide variety of ways including Belief Change patterns, patterns to eliminate internal conflict and indecision, patterns for creating motivation, habits and genius states. Coaching and training using these language patterns are active ways we can reduce our filter adjustment time from years and decades to weeks and days. Vastly increasing the rate of flexibility of our filters allows us to quickly reduce the gap between external reality and our models of the world. This allows us to manage our states so that we can choose appropriate responses as situations unfold in the real world.

Flexibility of Cognitive Filters

If we want to create richer and fuller models of the world to enable us to enjoy a richer experience of life we need to increase the range of our filters, in particular our cognitive filters. Similar to the effect of moving from Dial-up Internet solutions to Broadband, greater range in our cognitive filters allows more information to come in and shape our mental models. Our Meta-Programmes are responsible for how much information we allow in to help us to choose, cognise, feel, respond and conceptualise. The more flexible our Meta-Programmes are, the more choices we have about how we perceive incoming information. This allows us to see things from many different points of view, increasing our ability to empathise and build rapport with a diverse range of people.

Our belief systems are even more crucial in shaping our mental models. To a large degree, they are responsible for governing our experience of the world. There are no universal beliefs "out there". A belief is only what is true for us at any given time given our individual or collective model of the world. In the early 16th century era of Galileo, our collective belief was that the world was flat. No

one believed in the existence of germs until late 1800s. Our belief systems truly do govern even our collective experience of the world.

If we want to lead rich, resourceful, empowered lives, we need to have belief systems that will support our desired experience of the world. As a coach I work with clients using language patterns to explore their current beliefs. If these beliefs are disempowering, I use the Belief Change Pattern to replace their old beliefs with more empowering ones. This seeks to restructure their cognitive systems and align it to the experience they wish to have in the lives.

An interesting conversation I had recently with a friend revealed that she had a very strong belief from childhood about wealth creation. There was only a finite amount of money to go around in the world. If she took some out of this "pot" it meant that there was less for everyone else. There might be those who deserve or need it more. We used the Belief Change Pattern to replace this limiting belief and with the more empowering belief that money is representative of value that we can create in this world. The amount of value that we can create is infinite and therefore so is the wealth that we can create for ourselves and others. Anyone on the path to financial independence would find this an empowering belief that creates a great deal of momentum and motivation on their journey. If we held this as a cultural belief, we would change our world overnight, eliminating poverty and scarcity as each of us found creative ways to provide value for others, knowing that the amount of value we can create is infinite.

Choosing Meaning to Create Primary and Meta States

The third point of leverage in the model occurs in the states loop. When an external event gets filtered by our current model of the world, a process that psychologists call associative thinking takes place. Our minds automatically group and classify the event into categories and give it meaning according to our memories of the past or imaginings of the future. Usually this reaction occurs on a subconscious level and sneaks past us unnoticed. However, when we give meaning to our primary states and "think about out thinking", we are going through a conscious thinking process. There is no meaning "out there". The leverage lies in *choosing* to give meanings that will support the experience we wish to have as we move through life.

This is the structure I use with clients to diffuse Self Sabotaging Dragon States and install powerful Self Motivation states of Intentionality. One of my clients had been single for eighteen years. As a result of this he had developed a fear of being alone. He didn't like this fear and used to judge himself harshly about his inability to "snap out of it". He created a dislike about his loneliness and frustration about this dislike. Before he knew it, he was trapped in a vicious circle and he was unable to break free of the structure of this Dragon State reinforcing loop. The first thing we did was to break the structure of his Dragon State by simply accepting and observing his fear of loneliness. By taking away all the negative meaning he had given to his initial state, we took away the "food" of the dragon and slowed down the growth of this unwanted reinforcing loop.

Next we worked on using observation from a meta state position to give positive meaning to the initial primary state of fear of loneliness. He observed that this was simply what he was experiencing at *this* moment in time. Given nothing stays eternally constant, here was an opportunity for him to learn new skills as we progressed through our work together. This was the last step in breaking the old conditioning of his mind.

Next we used the power of the structure of reinforcing loops to build powerful states of Self Motivation and Intentionality with regards to relationships. For this we used imagination to design positive or resourceful states that would help him to create his desired future with regard to relationships. Initially we created a powerful primary state of what it would feel like to wake up in the morning, knowing that you were sharing your life with a significant other. Once this state coursed through his neurology creating a warm pleasant sensation, relaxed breathing and smile on his face, we worked on giving positive meaning to this primary state e.g. "when I am in a relationship, I look forward to going to work because it gives my life some purpose", "I look forward to coming home with a feeling of anticipation" etc.

Once we had achieved this initial Meta state, we used a linguistic pattern called the Intentionality Pattern to ride this reinforcing loop and give more and more positive meaning. This allowed him to access more and more abstract resourceful meta states, whilst amplifying the pleasant sensations of the primary states. In the end we got to a point where the meaning he gave to the experience of being in a relationship was peace, happiness and purpose in his life. These powerful meta states in turn created powerful resourceful primary states which created new physiological responses in his body. Everyday for a week I got him to repeat this pattern on his own in order to retrain his mind and body, providing momentum for him to achieve his compelling future.

This is the same structure I use to create shared vision and an enormous amount of motivation for teams when I work with organisations as a consultant. Once we understand the structure of states reinforcing loops, we can use it to slay our internal dragons and lay claim to the treasures they guard which is our inner genius.

Using Observation to Create Genius States

The fourth point of leverage is probably the most powerful. This occurs in those brief moments of our lives when raw sensory data from the external world slips through our mental model of the world. Guided along the path of observation it is experienced as a pure primary state of sensory awareness. We give no meaning to the event and the corridors of our minds are in silence as we are lost in the richness of the experience of our senses. Most of the time we fall into the beauty of these states unintentionally.......

as we melt into the warmth of the sand, walking along a lazy tropical beach
as we loose ourselves to the wind whispering among the blue gums
as we are awestruck by the vastness of the universe as we gaze in wonder at the clear
night sky in the countryside, a reflection of the history of the universe

This is the closest that we come to experiencing reality "out there" in its true form. This is when we are being our real selves coming back to the true potential genius we are born with. Robert Dilts describes the word genius as originating from a Latin term meaning "the superior or divine nature which is innate in everything". How can we intentionally cultivate these states of genius so that we can truly live our lives to our full potential?

My friend Debbie has mastered this art form. She used to play professional touch rugby for Australia. She knew she was playing with excellence when she slipped into what she calls "the

zone". She describes this state as one where she is fully in tune with the players, the field and the ball. There are no thoughts in her head and she moves on the field with awareness and instinct. She knows unerringly where the ball will be and is there to catch it. Sometimes she can even "psyche" herself into a state before the game starts.

What Debbie has learnt to do is to "go meta" to her initial primary state and observe it until it becomes a state of pure sensory awareness. Having intentionally created this state, she then plays professional touch rugby to maximize her performance in her chosen career. What would it do for your performance if you could systematically and effortlessly create these states of genius in your work? What would it do for your relationships, finances, health, and lifestyle?

The Personal Genius linguistic pattern is a powerful technique that uses the observation pathway to intentionally develop genius states. This pattern uses the unintentional states of observation that we fall into as a template to create intentional genius states of leadership, creativity, inspiration, emotional intelligence etc. amongst others. Once we have installed this designed genius state in our neurology, we hand over the management of this to our "executive" or subconscious mind. The executive or subconscious mind is now responsible for the quality control of this state, knowing when to turn it on and off, in what context, with whom, to what extent. We can use these states to bring excellence into our roles as leaders, managers, researchers, teachers, parents, partners and in all areas of our lives. These were the states of creativity and inspiration that brought us electricity, the theory of relativity, flight, antibiotics, and most innovations that are now so integrated into our daily lives that we hardly notice them at all.

The Road to Genius

The Geniusys model uses System Dyanmics as a powerful tool to help us understand and model the structure of human experience. This model helps us to understand how raw sensory input from the external world is filtered by our cognitive and sensory filters creating our internal models of the world. The filtering process creates a gap between external reality and our internal mental models. The Self Actualising Balancing Loop seeks to reduce the size of this gap by fuelling our desire for development and self actualisation.

Information filtered through our mental models acts as a stimulus for creating our internal Primary States. Associative thinking contributes to the formation of our Primary Sates by allocating meaning to sensory input using memory or imagination. When we bypass associative thinking and use pure observation we arrive at a primary state called sensory awareness. This is the basis for genius states. When we give meaning to our primary states we create internal meta states. This forms a reinforcing loop called the States Reinforcing Loop which is responsible for the growth of mind body states that govern our words and behaviour in the external world.

Understanding this structure helps to determine the leverage points in the strategy of our thinking process. The leverage points identified by the Geniusys model are:

- Minimising the adjustment time in flexibility of the filters in our mental models
- Maximising the range of flexibility of our cognitive filters
- Choosing the allocation of meaning to create primary and meta states
- Using observation to create genius states

The Geniusys model uses these leverage points to implement fast and lasting change in our thinking and consequently out behaviour. This is done in the format of training and coaching using linguistic patterns to influence our thinking and behaviour patterns, converting our genius potential into performance. If you had the instruction manual for developing your genius, would you use it?

Bibliography

Abrahams, Peter, The atlas of the human body: A complete guide to how the body works, Silverdale Books, 2002

Chopra, Deepak, Creating Health, Houghton Milffin Company, 1987

Hall, Michael L, Secrets of personal mastery: Advances techniques for accessing your higher levels of consciousness, Crown House Publishing, 2001

Pert, Candace B, Molecules of Emotion: The science behind mind-body medicine, Touchstone, 1999

Senge, Peter M, The fifth discipline: The art and practice of the learning organization, Currency Doubleday, 1994

Sterman, John D, Business dynamics: Systems thinking and modeling for a complex world, Irwin McGraw-Hill, 2000

Appendix A

Systems Thinking

General systems theory is said to have been developed by Ludwig von Berttalanffy in the 1940s. Systems thinking originated from his work and differs from traditional analytical techniques by looking at organizations and their environments as a complex whole of interrelating parts. It takes a holistic view that places emphasis on the relationship between parts, rather than studying separate entities independently.

System Dyanmics

System dynamics is a methodology for studying and managing complex feedback systems. Founded on the basis of control theory, it differentiates itself from other system theories by its emphasis on feedback. Jay W. Forrester, Germeshausen Professor Emeritus and Senior Lecturer at the Sloan School of Management, Massachusetts Institute of Technology is credited with demonstrated how feedback processes generate patterns of behaviour in large organisations. The field was made popular in the early 1990s by the application of systems thinking and system dynamics to learning organisation by Forrester's student Peter M Senge in his national bestseller "The Vth Discipline".

Neuro Linguistic Programming

Neuro Linguistic Programming (NLP) is a branch of the Cognitive Sciences and Cognitive Behavioural Psychology. It was founded at the University of California in the early 1970s by Dr John Grinder and Richard Bandler. NLP differentiates itself from traditional psychologies in its emphasis of the study of human excellence. It is a model of how we structure our subjective experience. It investigates how we use language to process, code and retrieve information which in turn programmes our neurology and defines how we think, emote and behave.

Neuro Semantics

Neuro-Semantics grew out of the field of NLP and is a model that describes how we make meaning though classifying, associating and evaluating experience. It was developed by Dr Michael Hall who studied NLP with its co-founder Richard Bandler. Dr Hall began his career as a psychologist in his private psychotherapeutic practice in Colorado. In 1994, Michael developed the Meta-States Model which investigates our higher cognitive functions. Since then Michael has developed the Neuro Semantics Society with his business partner Dr. Bob Bodenhamer.

Appendix B : Proposal for workshop

The Geniusys model is best presented as a workshop at the 21st International System Dyanmics conference 2003. At this workshop participants will:

- Explore the complex dynamic feedback loops that make up the structure of their thinking process;
- Learn how to map the structure of their thinking process using systems thinking and System Dyanmics;
- Identify the leverage points that will accelerate their learning and personal development process;
- Learn how to use these leverage points in order to systematically convert their potential for genius into performance;
- Learn language pattens to create positive changes in their thinking and behaviour.

The content of the workshop will closely follow the structure of this article. The time requirement for this workshop is approximately 1.5 - 2 hours.

The format for the workshop is as follows:

Section 1:	Presenting the Geniusys model	50 mins
Section 2:	Identifying the leverage points in the system	30 mins
Section 3:	Demonstration / audience participation of how to use language	30 mins
	patterns to accelerate the human change process	
Section 4:	Questions and answers	10 mins