Beyond Dramatica

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Preface

In 1994, the book *Dramatica: A New Theory of Story* was first unveiled to the writing community and almost instantly revolutionized the way authors understood and constructed stories. Since then, its techniques have been employed by Pulitzer Prize winning authors, academy award winning writers and directors, and producers of some of the most innovative series on television.

Melanie Anne Phillips, co-creator of the Dramatica theory, has written hundreds of articles describing Dramatica's concepts and their application to practical story development. But Dramatica is more than just a writer's tool to construct fictional stories; by its very nature it has implications in the realm of human psychology at large. This book gathers together some of the most insightful articles by Melanie on the application of Dramatica to the real world.

Assembled and edited by Dramatica expert Sandy Stone, this collection has been organized to provide useful new perspectives on how human thought functions, both individually and societally.

So, put away your preconceptions and prepare to have your eyes opened to a whole new approach to some of the most intriguing questions of our time.

Storyforms in the Real World and the Mobius Doughnut

Ever since we developed Dramatica as a theory to describe the elements and mechanisms of story structure, we have understood that as a model of the Story Mind, Dramatica might also be applied to the psychologies of real people as well as fictional ones.

First off, Dramatica says that every story has a mind of its own. This Story Mind is made up of a personality created by the storytelling style and an underlying psychology represented by the story's structure.

This alone, if projected onto real people, might help us understand an individual, be it a friend, a stranger, or perhaps ourselves. But Dramatica also contends that fictional characters are not only personalities in their own rights, but also must play a second role as a facet or aspect of the overall Story Mind. In essence, each character is a complete mental system, but collectively they join together to form a larger mental system that is not unlike a fractal of the dynamics of each individual character.

From this notion, we developed the concept of fractal storyforms, meaning that not only would characters create a Story Mind when they came together, but a group of story structures coming together would create an even larger Story Mind in which each individual story functioned as a character.

In the real world, we hypothesized, when people come together in groups, they automatically slip into roles that represent different attributes we all possess. For example, one person might become the voice of reason in a group, assuming the role of the group's intellect, just as there is a Reason Archetype in a fictional story. Another character might adopt the position of the group's passion, speaking up whenever human feelings are the issue, essentially fulfilling the same character function as the Emotion Archetype.

What's more, if a number of groups band together in a larger organization, automatically they will begin to adopt roles within the larger organization as if they were characters in a mind, thereby extending the phenomenon up one more fractal dimension. In the real world we call this "fractal psychology."

Naturally it follows that if Story Minds exist in the real world as well as the fictional world, then might we not best understand their elements and mechanisms by applying the same Dramatica model that has proven itself in the analysis of fictional stories?

Recently, an opportunity has emerged for us to explore the application of our methods for analysis of storyforms to actual situations and organizations. At first, the task seemed simple – just analyze the situations as if they were stories. But it quickly became evident that there are substantial differences in the two endeavors.

Most notably, while the narrative space of a story is a closed system, i.e. a book, a movie or a stage play, in the real world the narrative space is open, limitless. So unlike analyses of fiction, in the real world one must first find the storyform before one can analyze it.

Alas, this brings forth another difficulty. There is usually only one story in a fiction narrative space. Sometimes there can be a sub-story hinged to the main story that is almost wholly independent, yet touches at one point, such as a character who appears in both stories.

In such a case, the character is driven most strongly by its own story, yet still plays a function in the larger story. An example is the original *Star Wars* movie (Episode IV) in which Han Solo's debt story with Jabba the Hut is hinged (but not part of) the main story about the empire and the rebels.

In this example, Han's character would never allow himself to march into the detention area to rescue the princess EXCEPT that his need for money for his sub-story provides enough sideways motivation for him to act out of character and do something that puts him at more risk. A useful tool for writers, but a complication for analysts of real-world situations.

Further, some fiction narrative spaces can contain more than one complete story, like raisins in rice pudding. For example, in Woody Allen's movie *Crimes and Misdemeanors* there is a crime story and a misdemeanor story, each with complete and different structures and different characters that do not affect or interact with the other story. The movie is designed to force the audience to compare the two stories side by side and arrive at a conundrum.

In the real world, this means that any number of independent stories may co-exist in the same narrative space. One may even conjecture that some real world stories may be sub-sets of others, or perhaps even overlap each other containing some unique and some shared story points.

In short, single storyforms in fiction are idealizations in which there is a single central problem. The unfolding of the story is an argument about the best way to try and solve such a problem. But in real minds and real situations, many problems are constantly emerging, playing themselves out, and passing through each other, like stars in galaxies in collision. Add to this the fractal nature of nested storyforms and you end up with a veritable mess.

And so, the task of identifying and separating a single storyform in the real world, much less the one best suited to answer the questions at hand, becomes a daunting proposition.

Decades ago, when we were first trying to model Dramatica's conceptual structure in some tangible form, we experimented with several physical constructs to represent the elements and their attendant dynamics.

Nowadays, we are all familiar with the recognizable four-tower model representing the four Classes of stories and looking like an odd blending of a three-dimensional chess set and a Rubik's cube. But how many are actually aware of why Dramatica ended up being presented in this form?

The real story, as it were, is that in the very beginning, we began with lists of elements that we observed in story. Then we realized some were higher-level appreciations and others lower-level, like members of a family that all share the same higher-level family name as well as their own. Or, like families of chemical elements in which Fluorine and Chlorine are different elements but have properties similar enough to be in the same chemical family.

But how to build a model of that which satisfied all of the mechanisms that "chemically" connected the elements?

One of the first attempts I made was to get a toroid (a doughnut-shaped piece of Styrofoam about a foot across) and then to wrap a thin metallic foil tape around it in a helix. The foil wrapped around the circumference four times by the time it passed through all four quadrants and returned to the point of origin. This represented one of the four classes.

Three more foil tapes of different colors were added, spaced so that they also wrapped around the toroid in a four-loop spiral without overlapping the others. Each was slightly staggered, so that the beginning of the next color was at the ending of the last color, creating a continuously wrapping "quad-helix" around the toroid until the end of the very last of the four colored foils connected back to the beginning of the very first, creating, essentially an endless loop.

This was useful because you could see the relationships among elements of different classes when written equally spaced along each of the four colors. But, it was hardly practical to ship a Dramatica Steering Wheel with each software box; who could use the thing anyway? Besides, this was just an approximation. In fact, to be wholly correct, the toroid would had to have been wrapped by a Mobius strip to include the progressive shift of dynamics in a structure which we came to refer to (in verbal shorthand) as an "inverse with a twist." Hence, the need for a Mobius doughnut.

After that, we shifted to a much more doable visualization of the very same elements and mechanics as a pyramid for each Class of story (for each of the four towers you see today).

To illustrate that each pyramid represented a point of view that the peak that fanned out into a perspective of the "Truth" at the base, we decided to put two pyramids together at the base so they formed a crystal – real new age visualization, that!

This worked much better, but we came to realize that because both points of view were looking not at different sides of the same coin but at the same side from different places, then we ran into problems because the common base that was the interface between them couldn't be itself and also its mirror image at the same time. And besides, there were four classes, so how could they all share the same interface in a three dimensional model?

We were pretty frustrated. So, we took a clue from Crick and Watson when they were trying to be the first to discover the molecular structure of DNA. At first, they were using X-ray micrographs of DNA to try and see the structure. From that method, DNA appears to be a crystal, just as our model could. And, as we all now know, DNA is a double-helix, while our temporal component is a quad-helix.

We figured with that kind of correlation we were probably on the right track. But, since all that was still too complex for writers, we ended up simply making four towers, sub-divided into smaller and smaller components to illustrate all the familial relationships among the story points. And when we flattened it down to a two-dimensional grid, we presented this alternative view as the Dramatica Table of Story Elements that tens of thousands of writers use today.

And here we were now, twenty years later, looking at an open-system narrative space in the real world, once more trying to visualize a storyform. But not the same as in the closed system of fiction – an inverse version of that. But worse. Because in fiction, analysis is a closed set and creation is an open set, but in the real world analysis AND creation are BOTH open sets. So, it wasn't just an inverse, but an inverse with a twist AGAIN! Durn concept keeps coming 'round to haunt us.

Okay, let's take that toroid again and stick it in the middle of the real-world narrative space. We have to make it a Mobius doughnut in our minds because this doughnut is a very special doughnut because to see the storyform inside, you have to turn the doughnut inside out.

And here, then, is the real problem. You can see the data inside until you turn it inside out, but you can't turn it inside out because it is genus one with no opening on the surface. You see, if you take an inner tube and take off the valve, you can actually (or at least theoretically) pull the entire inner tube through the valve hole until the inside is on the outside and vice versa. But without a hole, in a true doughnut, there's no loose thread, no handle, no place to get a grip or begin the process of inversion.

The Mobius strip aspect indicates that it would only lay flat upon the toroid if we had one more dimension than three in which to build such a visualization. But, we don't – not for practical purposes.

And so, we bashed our heads against the wall for some time until after many days of conjecture, we realized that the key was not in finding the best storyform in the real-world narrative space by objective standards, but the best storyform by subjective standards.

In a world of infinite overlapping structures, none is more important than any other until you impose importance upon it. Essentially, as the singer/composer Don MacLean said, "The more you pay, the more it's worth."

As an analog, consider the story creation process in fiction. It is an open system, for the subject matter of interest to the author has no limits. Theoretically, this makes it impossible to pick the best story structure because it cannot be objectively determined.

But in practice, who the hell is objective? Rather, authors come to the story creation process because of their subjective interest in the subject matter. Many years ago I used to teach authors that we all get excited by the subject matter, but in truth, all of those bits of information can't possibly live together in peaceful coexistence in the same story structure. The job of the structuring author is to pick the most important subject matter first, boil it down to story points in the structure and then continuing picking until you hit the point where something you want won't fit into the structure. This is when the Dramatica Story Engine in the software is doing its job by telling the author, "if you include that extra piece, you're weakening your own structure – working against yourself."

So, when Dramatica doesn't match what you want to do at the lower levels, it's not broken. In fact, that's what it was designed to do – save you from yourself (save your subjective self from making a big objective mistake!).

Now if we apply that same principal to the open-system real world narrative space, then (using the inverse with a twist) analysis should work the same way. And durned if it doesn't.

You can't find a storyform in the real world, you have to impose one, just like an author does in creating a fiction. Essentially, what is it you want to know? What question do you want to answer, what process do you want to explore?

In practice, you simply look at the narrative space and decide what you want to know first. Then you turn a data point into a story point that will explore that for you. Then you pick the next piece and the next. You continue picking pieces until you've fully populated a storyform.

Of course, in the real world, you'll never get to a complete storyform before you run out of visible data points. But thanks to the Story Engine, by the time you've run out of data that belongs in your subjectively defined story structure, Dramatica will suggest the kinds of data that "should" be out there in the gaps.

If you are writing a fictional story about real events, these gaps will be filled by your own creation. But in an analysis of real world data, these gaps are already filled – you just haven't observed that data yet, but it's out there somewhere, hiding for now.

Therefore, Dramatica is able to tell you more about the real world than you can see for yourself.

In summary then, in both fiction and the real world, no storyform is better than any other until you have a preference for one. In either case, you need to look to the subject matter and build a storyform that best represents the subject matter you'd like to explore.

In short, when building storyforms in the real world forget all the pyramids and towers and Mobius doughnuts – all you have to do is make the one you want.

And in conclusion, it took us weeks of work and took me six pages to define and describe logically something every writer worth his or her salt knows intuitively:

Build the story you want to tell.

And Dramatica? It just keeps you honest when your own preference for the subject matter gets the better of making sense.

Fractal Psychology in the Real World

What characters represent in the Story Mind is not their own psychology but rather just the small fragment of that overall entity. Essentially, in the story at large characters are nothing more than automatons – going about their functions as "intelligent agents" controlled from above (by the structure of the story as a whole).

The reason we do not easily see this is because we endow our characters with human qualities so that we might identify with them. In a sense, we must give each character at least a rudimentary psychology of its own in order for the reader or audience to empathize or sympathize with it.

But, that psychology does not drive what the character does in the story – it merely defines its personality. Personality is like subject matter or storytelling; it is not structure and does not give the character any psychology at all when it comes to its objective function in the overall story.

Another reason we do not easily see characters as objective is because of something I call "fractal psychology" (see my video on my Storymind YouTube channel). The concept is that when we gather in groups, we form a larger Story Mind as the underlying organization of that group and each adopt roles in the group that correspond to the objective characters. For example, one of us will take the role of the voice of Reason and another will be the Skeptic.

Just as characters can be subdivided into their component elements, so too, in larger groups, its members will refine their functions and specialize until all the elemental positions are taken. Then, if the group grows larger, something really intriguing happens. Individuals will form smaller story mind groups within the overall group. So, there will be one "clique" or "faction" within the group that collectively act as the voice of Reason and another that functions as the Skeptical voice. Within each sub-group (sub-story) are similarly-minded individuals who all share the same basic attitude. BUT – within each sub-group, the individuals will take on other

objective roles so that, for example, someone will become the Skeptic within the group that stands for Reason – essentially he or she will function as the Skeptical voice of Reason.

And finally, as the original large overall group encounters other similarly sized groups, each group will take on a function and collectively all the groups will form an even larger mind.

This is Fractal Psychology – a pet theory of mine. It explains why we are all in a constant complex web of interrelationships with our peers, our superiors and our subordinates, sometimes being driven by our own psychologies, but socially always acting as objective characters.

And so, we expect every character to have a psychology when, in fact, stories are not complex enough for that. Stories are about dealing with a single central issue with a single Story Mind and the agents that make it up. In this level of magnitude, the objective characters have no real psychology, and yet the reader or audience will expect it, for they see the story as a slice of real life in which everyone they know, themselves included, has a psychology. We, as storytellers, then humanize our automatons so that we fool the audience, sugar coat the functions to make it appear as if they are fully developed people when they truly are not.

There are, of course, two exceptions to this – the Main Character and the Influence Character. They are special because in addition to their objective functions, they also represent our sense of self and that small "devil's advocate" voice within us with whom we argue about whether we should stick with the tried and true, even if it appears to be failing, or adopt the new and promising, even though it has never been tested.

So these two exceptional characters need to be fully developed with their own true internal thought processes. But that, alas, is another story...

Abandoning the Logic

Thought: For a long time, I've wanted to write a book entitled "Abandoning the Logic" about the fact that while half of what we are is driven by reason, the other equally important half embodies our purpose and meaning. There is as much understanding and as many conclusions to be gained by one as the other, but of different flavors and varieties.

In our Dramatica theory of story we often say, "You can't become the same as someone else just by being as they are; you also have to 'not be' as they aren't." But our minds don't easily focus on the negative space, and so we strive harder and harder to achieve by adding to the

mix, never considering that the recipe may not be achievable that way because it has an ingredient that must not be there.

In Dramatica, we see characters who change by "starting" something new – adding a new trait they previously did not express. We also see characters who change by "stopping" something old – shedding an old trait they previously expressed.

This shows up in stories as characters who could solve their problem if only they would just... Or, characters whose problem would be solved if only they just wouldn't... In the first case, the character needs a catalyst to get going. In the second, it needs an inhibitor to hold it back.

This same dynamic is harmonically reflected in the plot with two Dramatica story points called, not surprisingly, "Catalyst" and "Inhibitor." The first acts like a gas pedal, accelerating the progress of the story forward. The second acts like a brake pedal, slowing the progress of the story down.

We see these dynamics everywhere in life, and yet, because ours is a culture based on observation, definition and reason, we focus on only one half of this dynamic couple – we explore, map, build our understandings and make our decisions on what we see, never considering that half the time our answers can only be found in what lies between the elements of the delineated world.

Have you ever seen that picture of a vase that turns out to be an optical illusion in which the "negative space" carved out on either side of the shape of the vase presents the silhouettes of two men facing each other? So what is the picture really of, the vase or the faces? Naturally, the answer is "both."

And herein lies the problem. We look outward and see things – situations and activities (external states and processes) – then we look inside and see the in-betweens – attitudes and cogitations (internal states and processes), BUT we seldom look outward for the in-betweens and inward for the elements.

Dramatica broke new ground in seeking to apply logic to our feelings, to map the mind's processes in a "Table of Story Elements" by casting each process as an object – a building block of the mental/emotional flow – so that mental equations might be written to describe the manner in which each process is called in a particular order to create the DNA code of each individual consideration.

Of course, this is well hidden under the skirt of story structure since our market was writers, not psychologists. But it is there. In fact, we codified it aside from the story use and called it Mental Relativity, for it describes the relationships among Knowledge, Thought, Ability and Desire (the four essential "bases" from which all mental processes are built) the same way physics describes the relationships among Mass, Energy, Space and Time.

Knowledge is the Mass of the mind. Thought is the Energy. (This is conceptual of course – describing the ways in which they are analogous, not intended to equate them in substance).

An example of this relationship can be seen in the following... Mass and Energy can relate in two primary ways. First, Energy can be attached to Mass. We see this in the kinetic energy associated with a billiard ball in motion, for example. But, Mass can also be transmuted into energy, as in thermonuclear explosions.

Similarly, Knowledge can be moved around and assembled into large constructs by the expenditure of Thought. In other words, Thought can be attached to Knowledge to put it in motion. But, Knowledge and Thought can also be transmuted one into the other. But, as with E=MC2, it takes a lot of Thought to create a solid piece of Knowledge and, conversely, a single bit of Knowledge can generate an awful lot of Thought. Hence, the reason we named the psychology behind Dramatica "Mental Relativity."

But having turned the same definitive techniques we employ in the external world upon our own minds, we have still left one final realm of our existence unexplored – to map out our external world in terms of the in-betweens – to see substance as process and time as an object, to document external processes as feelings and external situations as moods.

Now I realize this sounds pretty far out there. And it is. It's in the last place our logic would look – the last place it has looked. In fact, I'm not entirely convinced that logic can work in that world. It may be outside the realm of the set of real numbers and into the realm of the imaginary ones, such as the square root of -1.

Yet that, in and of itself, does not invalidate its importance. Rather, it elevates the value of seeking to understand – or perhaps that is the wrong word – to "resonate" with the digital in terms of the analog.

This, I believe, is the last frontier of our efforts to understand ourselves and our world. And, quite frankly, I'd love to put some footprints in it in an area where no one has tread before.

Having spent a career employing the logical method, I've yearned to explore the passionate and to document it in a language not yet invented. But, time being what it is, and there being precious little of it, I figured I'd just give y'all the title and the concept for now so it will not be an idea wholly unexpressed. And if I ever do get both the time and the motivation, I'll tackle the book itself.

Narrative Space in the Real World

In other writings I describe how the term “narrative space” refers to the breadth and depth of the subject matter from which you will develop a story. Like a cloud, the subject matter is just the raw material – a nebulous realm in which many story structures might be found. Think of a story structure as a construct of tinker-toys about the size of a basketball. And think of a narrative space as your bathtub. With a tub full of subject matter, you can drop your tinker ball anywhere in it and encircle a different batch of water. Without changing the structure at all, you can move it just an inch and still change the nature of the particular subject matter you’ll use in making your point.

Now look at it another way. You have this tub full of subject matter than intrigues you. You’d love to cram it all into the same story. But, your ball just isn’t that big. In other words, you’d need a book the size of an encyclopedia to cover it all, or perhaps a movie 8 days long. Could it be done, of course! But should it? Not if you expect anybody to read it or go see it.

So, you assess your tub. You’d really like the rubber duck in your story so you put the ball around that. But, you’d also like that particular lump of suds – it just intrigues you. You gently push that little bubbly heap into your ball as well. In fact, you go all over your basin and pull all the water and floating things you’d specifically like into your ball. Eventually, you can’t get anything new into the ball without pushing something else out. That is the story equivalent of the speed of light constant. I call it the size of mind constant, because it describes the maximum size a story can be and still be held at one time in the mind of your reader or audience.

Of course you can always plop another ball into the same tub to gather in a different collection of subject matter. Thus, by writing a series of books, penning a television series, or hammering out a bunch of movie sequels, you might be able to get almost all the subject matter that interests you covered in one story or another – just not all in the same story!

(Naturally, you could create an over-arcing story structure in which each of the smaller stories becomes just an element in a bigger structure, but then the reader or audience won’t be able to see the subject matter detail in the smaller stories at the same time that they appreciate the subject matter in the over-arcing story – just too many degrees of separation or magnitude from the biggest to the smallest to capture in a single glimpse.)

Some of your tinker balls might actually overlap in the tub, like galaxies colliding, in which they each share some elements of story structure. Others may carve out sections that are completely separated. And, some may nudge up against each other just close enough to have a topical point of connection. In the end, though, you need to decide for any given story what subject matter you will include and what you will exclude. Or, put inversely, you need to determine where in the tub to drop your ball.

Finally, to the point of this particular posting – narrative space in the *real* world. By this I do not mean the practical application of story structure in fiction, but the projection of story structure concepts into the actual, physical world of living, breathing people. Quite a departure, I know. But recall that Dramatica is a theory of the story mind. It holds that every story structure is a model of the mind's problem-solving processes. Even more, it goes so far as to contend that story structure represents the underlying structure and dynamics of our own minds upon which our unique experiences fashion our singular personalities.

Hey – too talky... Let me try that a little more conversationally... What works in story structure works in understanding everyday life as well. The story mind is the same as our own minds. It is a fully functional model of how we think – how we organize things in our own heads. So it should not come as much of a surprise that the way we organize our stories is all the way we organize our lives.

Everything we do in life is represented in stories, at a structural level. I'm not talking about whether you like red or blue or whether you play football or go bowling – that's all just subject matter. (And when I say "just" subject matter, yes I know that is where the passion lies. We only care intellectually about structure. In short, our heads are into structure but our hearts are into the subject matter. Still, we're talking about the relationship between structure and subject matter here, so I suppose it doesn't really matter much anyhow.)

Now one person will organize his life in many story structures. Your life is your tub and you'll have lots of balls in it – some bigger (up to the size of mind constant, at times) but mostly smaller structures of various sizes. You'll have a structure for your parents and one for your kids. You'll have a structure for your job and, within that, one for your boss. You'll have a structure for your future, one for each hobby, and one for the concept of hobbies in which each smaller structure is an element in the overall concept.

We don't think in structure, we think in topics and organize in structure.

So, one person will have many nested and isolated structures all bouncing around in his or her head all the time, shifting around the subject matter of our lives, driven by the passions of our personalities. But underneath it all, logistically, organizationally, there is sense in the midst of the chaos when you recognize the structures of your life and don't try to create a "life story" but more like a "life pageant" of the ongoing progression, collision and evolution of all the little stories that make up your pitiful existence. Oops... got a little carried away there with the rhetoric...

Point is, one person has many stories. And within themselves, they can see all the character you find in stories – the Reason character who represents our intellect, the Emotional archetype who stands for our passion, the Protagonist who is our initiative, the Antagonist (our reticence), the Sidekick (our confidence) the Skeptic (doubt), the Guardian (conscience), and the Contagonist (temptation).

But here's the fun part – when we get together in groups, us humans take on the role of characters in the group story. In short, we organize ourselves as part of a larger group-story because story structure is how we organize. Sounds recursive, but when you consider that the whole point of stories is to show us how to deal with situations that reflect (at some tiny or grandiose level) our own lives, add to that the notion that story structure evolved because it represents the way we think, and add to that the fact that of course we try to organize our world they way our heads are organized – well then maybe it isn't so much recursive as it is fractal. In fact, when I first thought of this concept, I called it "fractal psychology" – that's my name for it and I'm sticking to it! (Check out my videos on fractal psychology you YouTube.)

Every time you join a club, participate in a class, get involved in a political party or show up to work, you are taking a role in a bigger story than yourself, but completely like the way your own mind is organized. So, one of us will be the voice of Reason, another the Emotional (passionate) perspective. By each taking a role, we cover all the ways we can possibly think about the issues the group faces, we create a "big giant head" a la *3rd Rock from the Sun* and populate its roles.

Now if you join an already existing organization, there might not be the position open to which you are best suited. And, because of seniority (or lack thereof) you have to take a role that isn't all that natural to you. But if you don't, you won't have a place at the table. So, you cram yourself into that position as best you can in the hopes that if somebody else leaves or dies or gets kicked out or whatever, when the musical chairs of reorganization occurs you may be able to snag yourself a better seat.

Though these things are always to some degree in flux (like molecules, heated, agitating and vibrating to one extent or another), there is a general inertia to each story system that holds the group together. In time, like a person, a group may grow old and die, lose its vibrancy, or simply go to pieces. And then, the pieces will gather together or be sopped up by other groups (again like solar systems forming from the remnants of a super nova) and the process will begin all over.

Now the last notion I'll lay upon you (hallelujah!) is that even groups gather together in groups. Cities become States become Nations. Factions become Movements become Parties. All of humanity is arranged as nested or separated groups, vibrating and evolving and overlapping as they pass through one another in the great subject matter tub of life. Seems largely like a mess (if you watch the evening news or try to find a job) but beneath it all, very sound, stable, predictable and consistent patterns are a work, all fractally related to that little bitty brain stuffed into each of our puny heads. A world within and a world without.

Finally, just to poke the bear one more time, go ahead and write your fictions, shoot your movies, and tell your tales. But wouldn't it be interesting to try and apply these same Dramatica principals not only to the realms of your creation but to all creation? What's the story with your spouse? Your job? Your future? Which of those countries is the Skeptic in this particular international melee? How does what happens in my town fit in with what happens in my county, and how does it mesh with the next burg over?

You want to think about it. You know you do. (That's just me falling into the role of Contagonist...)

Indy... Why does the floor move?

A Dramatica user recently noticed that Elements (the smallest, most detailed story points in Dramatica) are in different arrangements at the bottom of each of the four Domains. In other words, he was wondering why the "floor" moved.

Here's my reply...

Think of each of the four Domains as four different kinds of filters through which to see the story's problem. They look at the effects of the problem in terms of Internal and External and divide each of those realms into States and Processes, creating the four Domains – Situation (external state), Attitude (internal state), Activities (external processes) and Manipulation (internal processes, psychology or manners of thinking).

By the time you look all the way down to the greatest detail at the element level at the bottom of each Domain, you are seeing the same elements because you are looking at the same central core of the problem – the event horizon of the problem, as it were. Though they are the same elements, because of the four different filters, they appear distorted. It doesn't change their names (the nature of the elements), but the distortion changes the way they appear to group together. So, while the same elements appear at the bottom of each Domain, the way they are arranged is different due to that distortion.

Always keep in mind that you never actually see the real inequity that is at the heart of the story directly. It does not appear as being any particular story point or arrangement of story points. Rather, the inequity exists in the relationships among all the story points. It is the tension created by the gravitational pull of each story point upon all the others (actually the psychological pull, which acts like gravity in a storyform) that describes the effects of that inequity. When the planets are out of alignment – essentially meaning that there is tension in the storyform map of the story mind's psychology – then there is inequity. And it is that inequity that leads to the unwinding of the story, act by act and scene by scene, like a Rubik's cube being turned, seeking entropy – equity – in a realignment of all the forces into a stable balance once again.

The true inequity that causes the problem sits at the center of the story, in the middle of all the story points, guiding the celestial psychological orbits of the story points not unlike the unseen black hole at the center of our galaxy. And the elements revolve around it like separate solar

systems of mental processes, both logic and passion, wheels within wheels within the space-time of the mind.

Dramatica and the Brain

Recently, a Dramatica user asked a question about the relationship of the Left Brain / Right Brain concept to Dramatica's Story Mind concept. My reply (which follows) provides the nitty gritty, but is pretty dense and uses "short speak" because the Dramatica user is something of an expert with a lot of depth and pre-knowledge about Dramatica's psychological underpinnings. So, this probably isn't very readable and may even come off as word salad or bull crap to the un-initiate. Still, it has a lot of good information in a small space for those who are into such things. So, for the benefit of all you die-hard Dramatica groupies, here's the durn reply, as is, take it or leave it...

****

Ganglia are like tiny brains – they share a fractal relationship with the brain at large. Just as they are networks made up of individual neurons, the brain is a network made up of individual ganglia. The brain's dynamic functioning is more directly connected to the output of and more directly inputs to the ganglia than to individual neurons, just as the body, as a whole, is more directly affected by the organs than by the individual cells that make them up. And so we create, in essence, one magnitude of fractal distance between the brain and its tiny, similarly functioning ganglia.

The operation of each defines essentially one fractal dimension, so by considering them both simultaneously, we can see two fractal dimensions. Putting that aside for a moment, let's just look at the brain in terms of left and right brained-ness. Now we have two functions that operate within the same fractal dimension – a structural side (the left brain) and a dynamic side (the right). Jumping down to a ganglia, we see the same division within its fractal dimension – a left hemi-ganglion and a right hemi-ganglion.

Now I haven't kept up with the latest in neurology, but twenty years ago Mental Relativity theory predicted that there would be a structural and dynamic component to the ganglia as well. I originally suspected it would be the same as the larger brain, based on left-ness or right-ness. But then, I learned of L cells and R cells within each ganglion. And I began to wonder if perhaps these cells were what created two dimensions in each ganglia. I speculated that perhaps one of these kinds of cells produced mostly neuro-exciter neurotransmitters, and the other produced mostly neuro-inhibitors, similar to serotonin and dopamine. The influence of one would favor the structural (binary) firing of neurons and the influence of the other would

inhibit that, allowing the biochemical environment around the body (axon) of the neuron to have more influence, thereby favoring slightly the more analog effects of the ebb and flow of the biochemistry within each ganglia.

It occurred to me that perhaps that is where, physiologically, the differences between male minds and female minds actually resides. Perhaps before birth, the wash of hormones that occurs in the womb around the 12th week, as I recall (being no expert, mind you, and also twenty years out of date in research) – this wash of hormones "sets" the ratio of effectiveness of the L cells to the R cells throughout the brain, thereby making each little neural network of any given ganglia a little more leaning-toward structural or dynamic processing.

But, I digress. The specific physiology is way out of my pay grade. What I do expect is that the left and right brains work at the same level, but one structurally and the other dynamically. I expect this will be found (functionally) in each ganglion as well, but as one fractal dimension below that of the whole brain. The result is a relationship similar to that of Knowledge and Thought (using Mental Relativity Theory terminology) which are both at the same "fractal level" in concept, just as are Mass and Energy.

This can be seen insofar as they can both directly interact such as with kinetic energy transfer in billiard balls, for example, but also they can transmute from one to another, such as in a nuclear bomb. In short, just as with Mass and Energy, it takes a lot of Thought to make a little bit of Knowledge, but a tiny bit of Knowledge can generate a tremendous amount of Thought!

But to complete the Mental Relativity Quad of Knowledge and Thought, you also must include the other two elemental components of the mind, Ability and Desire. When you think of them, they are at a whole different fractal level. They share the same relationship as Space and Time, respectively. Knowledge and Thought (or Mass and Energy) are a "Dynamic Pair" – meaning that they have something of an inverse relationship (the more you come from what you know, the less you think).

Ability and Desire (or Space and Time) are also in an inverse relationship (hence, what is perceived as a space-time continuum, though I take some exception to that perspective). Space and Time belong together like Mass and Energy do, but each pair isn't operating at the same fractal level as the other, just as the two sides of the big brain belong together, just as the two aspects of the little brain (ganglia) do, but big and little aren't on the same playing field – they are in two separate leagues, operating similarly, but one is the minor league and the other the major. And yet, both leagues are dependent upon one another, one for new talent from below, the other for financial support from above.

And so, collectively all four items, Mass, Energy, Space and Time or Knowledge, Thought, Ability and Desire, or Left Brain, Right Brain, Left hemi-ganglion and right hemi-ganglion all form quads, each a slightly different fractal harmonic of the others, but working internally with virtually the same structure and dynamics.

We directly perceive four dimensions because our brains exist in four dimensions. Our brains exist in four dimensions because we perceive them. In fact, no such limitations exist and

dimensions may easily extend both up and down the magnitude scale. But when perception becomes locked, dimensionally, to reality – or more poetically put, when mind and matter become dynamically locked in a structural interrelationship, they dance around the ring of reality like two boxers in a bout, covering all the ground in a universe and bound only by the limits of their own unbreakable inter-relationship.

Hey – sorry I got carried away, but you asked! – Melanie

Dramatica Theory Application on World Problems

Introduction to Dramatica Theory and Applications

The Dramatica Theory of Story is a model of the mind's problem solving processes which has been successfully employed for seventeen years in the analysis and construction of fictional stories ranging from major Hollywood productions to novels, stage plays, and television programs.

Software based on the Dramatica Theory is built around an interactive Story Engine which implements the problem-solving model as a method of determining the meaning and impact of data sets and of predicting motivations and actions based on potentials inherent in the data.

This is achieved by creating a *Storyform* – essentially, a schematic of the problem solving processes at work, their interactions, their outcomes, and the future course they will take.

The Dramatica system and its problem-solving algorithms can be applied with equal success to the analysis of real-world situations as well, specifically in determining the motivations behind the actions of a target group and in the prediction of their future actions and potentials for action.

Scalability and the Story Mind

To illustrate this methodology let us consider a generic target group. This might be a clique, club, movement, political faction, tribe, or nation. This highlights an important benefit of the system: Dramatica is scalable. It works equally well on individuals or groups of any size.

This kind of scalability is described by a Dramatica concept referred to as the *Story Mind*. In fiction, characters are not only individuals but also interact in stories as if they are aspects of a larger, overall mind set belonging to the structure of the story itself.

If, for example, one character may emerge in group actions and discussions as the voice of reason while another character, driven primarily by passion, becomes defined as the heart of the group.

Stories reflect the way people react and behave in the real world, and when individuals band together as a larger unit, they fall into roles where the unit itself takes on an identity with its own personality and its own psychology, almost as if it were an individual itself, in essence, a Story Mind.

Fractal Storyforms in the Real World

Similarly, if several groups become bound, as when factions join as members of a larger movement, the movement begins to take on an identity and the factions fall into roles representing aspects of individual problem solving processes.

Dramatica can move up and down the scale of magnitude from the individual to the national and even international level, while retaining an equally effective ability to analyze and predict based on its underlying model. This phenomenon is referred to the *Fractal Storyform*.

In actual practice, many groups of interest are ill-defined, have blurry edges and indistinct leadership. Still, the core motivations of the target group can be determined, and from this the edges of the group can be refined sufficiently to create a storyform of the appropriate magnitude to suit the task at hand.

Memes and Story Points

Dramatica makes a key distinction between the underlying structure of a story and the subject matter that is explored by that structure. For example, every story has a goal but the specific nature of the goal is different from story to story. Elements such as a goal which are common to every story and, hence, every problem solving process, are referred to as *Story Points*.

Similarly a culture, ethnic group, religion, political movement, or faction will employ the same underlying story points but will clothe them in unique subject matter in order to define the organization as being distinct and to provide a sense of identity to its members.

Once a story point has been generally accepted in a specific subject matter form it becomes a cultural meme. Efforts to analyze and predict a culture based on memes alone have largely been unsuccessful.

Dramatica's system of analysis is able to strip away the subject matter from cultural memes to reveal the underlying story points and thereby determine the specific storyform that describes that group's story mind.

Essentially, Dramatica is able to distill critical story points from raw data and assemble them into a map of the target group's motivations and intentions.

Passive Participation and Active Participation

One of Dramatica's greatest strengths is that it works equally well in constructing stories as in analyzing them. We refer to analysis as *Passive Participation* and construction as *Active Participation*.

When dealing with a target group of interest, these two approaches translate into the ability to *passively* understand the target group and anticipate its behavior, and also to *actively* create courses of action by which to intervene in and/or influence the group's future activities and attitudes.

To understand, we determine motivations and purposes.

To anticipate, we project actions and intent.

To intervene, we define leverage points for targeted action.

To influence, we determine nexus points for focused pressure.

Analysis

The passive approach is comprised of Analysis and Prediction. Analysis is achieved by first identifying independent story points and then determining which ones belong together in a single storyform.

Identifying Story Points

In addition to cultural memes, story points can also be derived from the target group's public and private communications, in news publications and vehicles of propaganda, in works of art (both authorized and spontaneous), in popular music and entertainment, in the allocation of resources, and in the movements and gatherings of individuals. In short, any data can directly or indirectly provide valid story points.

Identifying a Storyform

Once a collection of story points has been assembled, it must be determined which ones belong together in the same storyform. Each storyform represents a different state of mind, but there may be many states of mind in a single target group. These are not different mind sets of individuals, but different mind sets of the group itself:. And just as stories often have subplots or multiple stories in the same novel, target groups may have a number of different agendas, each with its own personality traits and outlook.

This can be illustrated with an example from everyday life: a single individual may respond as a banker at his job, a father and husband at home, a teammate in a league and a son when he visits his own parents. Similarly, a target group may have one storyform that best describes its relationship to its allies and another that describes its relationship to its enemies.

It is crucial to determine which storyform is to be analyzed so that an appropriate subset can be selected from all derived story points.

Results from Limited Data

The Story Engine at the heart of the Dramatica software cross-references the impact and influence of different kinds of story points as they interact with one another, both for individual story points and for groups of story points.

Once the scope of the storyform is outlined, **the software can actually determine additional story points within that closed system that had not been directly observed** as part of the original data set. This creates a more detailed and complete picture of the situation under study than is evident from the limited data.

Spatial Data vs. Temporal Data

Unique to Dramatica's software, the Story Engine is able to determine the kinds of events that must transpire and the order in which they will likely occur, based on the static picture of the situation provided by the complete storyform.

In stories, the order in which events occur determines their meaning. For example, a slap followed by a scream would have a different meaning that a scream followed by a slap. Similarly, if one understands the potentials at work in a storyform derived from story points pertaining to the target group, **the Story Engine is capable of predicting what kinds of events will likely follow and in what order they will likely occur**.

Conversely, if the originally observed data set includes sequential information, such as a timeline of a person's travels or of the evolution of a sponsored program, the Story Engine can convert that temporal data into a fixed storyform that will indicate the motivations and purposes of the group that led them to engage in that sequence of events.

Prediction

The Dramatica theory and Story Engine (when properly used by experts) is able to translate the spatial layout of a situation into a temporal prediction of how things will unfold from that point forward.

Signposts and Journeys

The Dramatica storyform breaks events into Signposts and Journeys. These concepts are similar to the way one might look at a road and consider both the milestones and the progress being made along the path.

In stories, this data is described by Acts, Sequences, and Scenes, concepts which represent different magnitudes of time. Acts are the largest segments of a story, sequences one magnitude smaller, and scenes are even smaller dramatic movements.

Wheels within Wheels

It is commonplace to think of story events as simply being driven by cause and effect. A more accurate model may be roughly visualized as wheels within wheels, where a character sometimes may act in ways against its own best interest. For example, larger forces may have been brought to bear and might carry greater weight.

The outside pressures that are brought to bear on the target group build up these potentials as if one were winding a clock. In stories, this creates potentials that make each wheel (such as an act of a scene) operate as if it were a *dramatic circuit*.

Each story point within a given dramatic circuit is assigned a function as a Potential, Resistance, Current, or Power. Determining which of these functions is associated with each story point is essential to accurately predicting the nature and order of a target group's future activities based on an understanding of the different magnitudes of motivation at work.

Closed Systems and Chaos

Storyforms are closed systems. They are snapshots of a moment in time in the mindset of a target group. But just as an individual or a character in a story is constantly influenced by outside events, new information, and the impact of others, so too is the target group. To the ordered world of a storyform, such outside influence is seen as chaotic interference.

The accuracy of a storyform analysis and its predictions has a short shelf life. The more volatile the environment in which the target group operates, the more quickly the accuracy of the storyform degrades.

Fortunately, storyforms can quickly incorporate new data to be updated in real time to give a constantly refreshed accuracy to the analysis.

In addition, just because a target group's motivations and agenda is continually being altered by outside events does not mean the effects upon it are completely chaotic.

Some influences, such as an earthquake, an unexpected death, or a surprise attack are truly chaotic, while other influences only appear to be chaotic because they are not part of the closed storyform. Rather, they are part of a larger story.

Applying the concept of the fractal storyform, it is possible to create additional storyforms of both larger and smaller magnitudes to surround the target group so that it is seen not only by itself, but also as a player in a larger story or in terms of individual players within it. In this manner many events that previously appeared chaotic can be predicted and the accuracy of the target group storyform is enhanced.

Movie Frames

Another method for minimizing inaccuracy in prediction is to create a series of storyforms for the target group over a given period. These are then assembled in sequence, like frames in a movie, to determine the arc of change over time.

Truly chaotic events will largely cancel out, but ongoing influence from larger and smaller storyforms with their own individual agendas will create a predictable curve to the manner in which the target group's storyform is changing, thereby allowing us to anticipate not only what the target group might do on its own, but what it is likely to do as the situation in which it operates continues to evolve.

Direct Intervention

In contrast to Passive methods, with Active methods we consider altering the actions and attitudes of a target group by either direct intervention or indirect influence.

Identifying a Problem

Once a storyform has been created and analysis and prediction have been employed, an assessment must be made to determine if the target group is currently of a mindset contrary to our interests and/or if it will be in the future.

Before a response can be developed, the specific nature of the problem must be fully defined. Again, the storyform and its component story points offer an accurate mechanism for determining the specific nature of the problem: the story point or story point arrangements that are in conflict with our interests.

Identifying a Solution

Some solutions simply require the alteration of a single story point to a different orientation within the storyform (corresponding to a slight shift in attitude, motivation, or actions by the target group). Often, once the specific nature of the problem is understood, a direct surgical impact on that story point may alter the direction of the story. Modifications to the storyform must be approached with caution, because a single small ill-advised move can sometimes do far more damage than the original problem. More complex problems may require replacing the current storyform with a completely different one.

"What If" Scenarios

Fortunately, Dramatica's Story Engine allows for altering one or more story points to see the nature of the new storyform that will be created as a result. A large number of alternatives exist by simply altering a few story points, resulting in the ability to game out "what if" scenarios in real time to determine a wide variety of alternatives that would accomplish the same end.

Risk Analysis

By comparing the effectiveness, ramifications, and projected timelines of each alternative storyform solution, it is possible to create an effective risk analysis of each available option to ensure maximum impact with minimum risk.

These alternative storyforms can indicate the kinds of risks involved in each potential response to the problem, as well as the magnitude and likelihood of each risk.

Indirect Influence

Direct intervention may be inadvisable for any number of reasons. Also, if the problem with the target group is its overall attitude, the strength of its motivation, or its unity of purpose, any overt action might prove ineffective or even counter-productive, resulting in a response opposite to that intended.

In such cases, it may be more prudent to exert a gradual influence or series of influences over an extended time. Here again, Dramatica is able to provide tools to know when and for how long to apply specific kinds of visible and/or invisible influence to ultimately obtain the desired changes in the target group's mindset.

Identifying Problem Qualities and Directions

At times, there may currently be no problem, but the storyform may reveal that, if left unaltered, the course of events will lead the target group into an undesired orientation. This allows for the allocation of our own resources in advance so that we might prevent the Target group from taking that particular course and opting instead for one more consistent with our interests.

Again, the first step is to create a storyform from available data and then determine the qualities of the target group's story mind that are contrary to desired attributes.

Determining Desired Qualities and Directions

Once the problem qualities and/or directions have been defined, alternative storyforms can be created using "what if" scenarios and risk analysis to determine the best choice for a new storyform we would like to see in place.

This storyform may represent a new state of mind for the target group as a unit, or a different path that will take it through an alternative series of actions than it would otherwise instigate.

Context and the Larger Story

One method of manipulating a target group into a new outlook or attitude is through the subtle placement of the psychological equivalent of shaped charges. Rather that the direct impact of intervention, a number of small, seemingly unconnected exposures to information or

manipulated environments can combine to create a single and powerful influence that will provide an immediate course correction to the undesired qualities and directions of the target group.

To effect such a subtle and undetectable influence is possible due to the depth and detail of the Story Engine's ability to calculate the collective influence of many small magnitude story points on the overall storyform.

Movie Frames

Returning to the "movie frame" concept in a proactive rather than analytical manner, it is possible to create a series of storyforms, each of which is slightly different that the previous one. As with individuals, the mind of a target group is more open to accepting small changes and establishing a new normal than to larger immediate changes that raise resistance.

Over time, subtle influences can follow a planned arc of change that leads the target to a new mindset, perhaps even diametrically opposed to its original viewpoint.

It is important to recognize that any long-term arc must be constantly updated and adjusted so that new influences are brought to bear to limit or leverage the impact of chaotic influence on the chosen alternative course.

Potential Future Implementations

Currently, the story engine requires manual operators versed in the Dramatica theory for processing and creating storyforms for purposes of Analysis, Prediction, Intervention, and Influence.

In the future, natural language processing can be coupled with the story engine's operations to bring a degree of automation to the identification of story points using hub theory to locate them in large quantities of raw data.

Influence networks can be employed to determine which story points are likely to belong to the same storyform and to assemble them into alternative storyforms which may co-exist in the same raw data.

Employing a *real-time* version of Dramatica's Story Engine could allow for real time analysis of ongoing data flow and indicate new storyforms as soon as they manifest in the mindsets of target groups, alerting operators when existing storyforms have dissolved or altered due to ongoing influences.

Natural language output can provide continuously updated options in time-crucial situations with a series of live "what if" scenario suggestions.

In Summary

The Dramatica Theory of Story and the software that implements the theory in an interactive story engine has, for the last seventeen years, successfully enabled accurate analysis and creation of story structures in motion pictures, novels, stage plays, and all forms of narrative communication.

By identifying the crucial story points in the mindsets of target groups of any size, the Story Engine is equally effective in analyzing and altering a target group's current and future attitudes and behavior in the real world.

al-Awlaki, the "Uncanny Valley" and Writing Empathetic Characters

(Written October 4th, 2011) Recently, Anwar al-Awlaki, the infamous "American" al-Qaeda, was killed by American forces. He was viewed as a great threat because of his ability to speak to the domestic population of the United States in their own language and culture and to inspire terrorist acts by those susceptible to his message of jihad.

While these allegations are certainly true, they alone do not explain the intensity with which al-Awlaki was both feared and despised. In fact, there is another quality he possessed that amplified the trepidation and derision he precipitated: he fell into the "Uncanny Valley."

"Uncanny Valley" is a term generally used to define any non-human entity whose attributes are just human enough to be disturbing. For example, psychological tests have been run that chart an empathy line against robots whose features range from fully mechanical to completely human in appearance. At first, the results were predictable: the more human the robot appeared, the more empathetic people were to it.

But, as the human qualities reached a point where they became "almost human" there was a sudden drop-off in empathy as steep as a cliff. In fact, the reaction to such an entity reached a point where it plummeted below zero empathy into the realm of negative empathy, documented as "revulsion."

The same test was also run using stuffed animals and the results were essentially the same – our empathy increases as human likeness increases until a sharp break point is reached where additional increases quickly reverse the trend. Once the line hits bottom and as human similarity continue to increase, eventually empathy rises again into the positive, and ultimately reaches maximum when the non-human entity appears absolutely identical to a human, even though one knows it really is not.

Now this aspect of human psychology has tremendous implication for writers, especially in the creation and development of characters. While it has been explored directly in such works as the *I, Robot* novels by Asimov (and especially well-handled in the movie, *Bicentennial Man* starring Robin Williams), it is always at work in the relationship between an audience and the fictional entities that populate the stories it reads and watches.

Let me propose that the Uncanny Valley not only pertains to the visual qualities of non-human entities, but to how we intuitively sense their humanity, almost as if we were automatically and subconsciously performing a Turing Test on every person we meet.

I believe we are. I believe we are prepared to accept something totally alien as a risk of unknown potential, while any creature we can identify as of human essence is a known quantity and, therefore, a predictable risk at worst. But someone or something that is just off-kilter enough is loose-canon when it comes to threat. We might find ourselves lulled into complacency only to be set-upon when our guard is down.

For example, we are afraid of an earthquake or tornado because it is random and chaotic. We are afraid of bears in a different way because they share our emotions and we understand what they might do. But a Terminator or a demonic spirit is far more terrifying, for while we are able to frame it as an entity in our minds, we are unable to fathom its motivations or to predict its behavior, which are often contrary to humanity.

In contrast, consider animated cartoons in which cars, cattle, or cantaloupes may all engender empathy from an audience because they are carefully (albeit intuitively) crafted to fall far enough from human-looking to avoid the Uncanny Valley on one side, and close enough to human in spirit to avoid the Uncanny Valley on the other.

Many of the disfigured humans of fiction are often drawn to revolt us in appearance while connecting to us in their humanity. And, of course, many characters are written to illustrate that even the most beautiful can have revolting souls.

Now for the sake of a mental exercise, consider how this holds true in real life. For example, most of us find the Elephant Man uncomfortable to look at, yet empathize deeply with his heart. But what of those in our own lives who have been badly burned or born with physical defects? What must that life be like when you are constantly reminded, subliminally, that others shun you as non-human? There are lessons here for our spiritual growth and stories to be told.

Let's shift gears, for a moment, and go to the opposite extreme – the science of mind, the neurology of psychology. If you go to Wikipedia and look up Uncanny Valley you'll find graph that shows the sudden dip and re-rise of the empathy line.

I was immediately struck by how similar that line is to the "action potential" of a neuron in the brain. After a neuron fires, it is chemically inhibited from firing again immediately. Rather, the

“action potential” goes from maximum, down a steep cliff during the actual firing to a negative action potential until the forces that lead to the ability to fire recharge.

I’m going to make a leap here and share with you an aspect of the psychology behind Dramatica – a theory we call Mental Relativity. As part of the theory we propose (because of what we have observed in our model of story structure) the dynamics in the electro-chemical operations of the brain are reflected, almost as fractals, in the high-level dynamics of psychological processes. Simply put, psychology exhibits sympathetic vibrations of the patterns of physical brain function.

Now, I realize there are no studies (to my knowledge) that explore this, but it absolutely is a prediction of the Mental Relativity theory. But why would this be? Consider one potential explanation...

It is one of our most essential survival tools to be able to recognize objects, patterns, edges, what is part of something and what is not. The same curve we see in neurons or in the Uncanny Valley actually is just a reflection of our ability to define the limit of things.

We use this to see a rock in our path or to determine if a figure coming through the mist is friend or foe. It is what allows us to describe the nature of an object or a person and the scope of an argument or a story.

And so, with an aspect of our minds that is so foundational and all pervasive, a wise author would give it heed when building characters to be attractive or off-putting, a wise person would think twice about from whom they turn away (and why), and as for al-Awlaki, well, he was American enough to connect with those who felt isolated, but just a little bit too non-American to avoid our ire.

Watson and Dramatica: Building an Artificial Mind

Some twenty years ago, upon realizing that the structure of stories was actually a model of the mind itself, Chris and I began to wonder if that model could serve as a blueprint and instructions for creating a truly artificial mind.

Today, with the debut of IBM’s Watson and its attendant interest and enthusiasm, it seems the perfect time to revisit those considerations and the conclusions at which we arrived.

What follows is a complete description of Dramatica's plan for building a thinking and *feeling* machine that is not only aware, but self-aware as well and how that model is only partially realized by Watson.

To begin with, minds are not exclusively engines of logic. Rather, they are generators of passion as well. Awareness requires only logic. Self-awareness requires emotion as well.

Logic is based on discrete points connected by causal relationships. Emotion is a continually evolving condition that ebbs and flows. In more technical terms, think of logic as made up of particles and emotion as comprised of waves. It is the interaction of the particle and wave natures of the functions of the physical brain and its biochemistry that create the particle/wave nature of the resultant mind that is engendered yet does not reside within the brain.

Simply put, to function as a complete mind a system must include both binary and analog components.

In other words, what we are proposing is that the neural networks of the brain are only half the story. It is the influence of the brain's biochemistry on the functioning of the neural networks (and vice versa) that creates self-awareness.

Before we proceed, let's take a moment to define *awareness* and *self-awareness* as we will be using them.

Awareness, by Dramatica's definition in regard to mental functioning, means a system that is affected by and responds to its environment. This response is automatic and completely predictable if the nature of the stimulus and the organization and potentials of the neural network are known.

There is nothing magical about an aware system. Rather, it can fully be explained as a series (or several concurrent parallel series) of causal processes that, once triggered by a stimulus (or simultaneous or progressive stimuli) responds in an absolute manner with no variance other than that interjected by chaotic influences from outside the system.

More conversationally, barring chaos, the same stimuli applied in the same manner and with the same timing will invariably generate the same result.

Self-Awareness (again, by Dramatica's definition) is a much more complex notion and far more complicated system, first and foremost because it requires an Aware system to already be in place. Self-Awareness is then overlayed upon (or *added to* as a better descriptor for some purposes) that essential foundation to which is must refer and through which it must translate its functions between itself and the external world at large.

A Self-Aware system is, in contrast, very nearly magical in its properties, which is not to say that the mechanism of its operation is unknowable. In fact, that is the heart and substance of this article.

Essentially, due to the nature of the physical brain's neurons and neural networks, all activity of a binary nature is driven by the so-called "action potential" between the inside and outside of each neuron's membrane. Only when the action potential reaches a certain size does it trigger the irrevocable firing of the neuron as a charge is sent down its body to chemical containing *boutons* which burst, releasing neurotransmitters across a synapse to be received by the awaiting dendrites of a nearby neuron (or neurons).

Simplistically, the biochemical nature of the brain *interferes* with the binary functioning of the neural networks, adding the element of apparent (though not actual) serendipity to the system, all of which is really based on the mean average of the functions of many nearby neurons converging on each individual neuron to alter the external environment, and thereby contributing to (or removing from) the local action potential of each neuron.

Again, more conversationally, no neuron is an island, and direct communication from one to another is continuously moderated by the local weather that surrounds it.

This, then, is the opening salvo in an assault on the nature of the mind itself. So far, as it is no more than a rough sketch of the concept so as to illuminate the scope of what we are actually professing, it has offered no details, no proofs, and is, therefore, hardly convincing.

It is in the material that follows in which I hope to provide a thorough enough exploration of the topic so as to at least suspend disbelief enough to warrant further investigation and inquiry.

To that end, let us now turn our attention to the inner workings of the Dramatica model, how they ultimately represent the functioning of the mind even unto the physicality of the brain and then sum up with a description of which portions of this model have been implemented in Waston, what remains to be done to create a truly artificial mind, and how that can be brought about through both hardware and software approaches.

As our point of departure to this journey of exploration, let us note that the Dramatica model is a system comprised of two principal parts: a structure (represented in the multi-level Dramatica Chart) and dynamics (represented in the forces that twist and turn the chart to rearrange its components much as one might alter the patterns of a Rubik's Cube).

The structural aspect of the model represents the neural networks, binary components, and logical causalities of the mind as made manifest by the biology of the brain. The dynamic aspect of the model represents the varying action potentials, analog components, and emotional progressions of the mind as made manifest by the biochemistry of the brain.

Collectively, the structure and dynamics of the Dramatica model illustrate a complete functional model of a mental system incorporating both Awareness and Self-Awareness.

Though other models are possible and may ultimately better represent this system, it is the theory concepts behind this particular representation that are the core issue of import in this discussion, and the model itself is simply a means to visualize the relationships described .

(In fact, in the early days of Dramatica development, the same data was organized in a number of different models ranging from pyramids to a toroid wrapped in a mobius strip, all of which worked but were ultimately abandoned in favor of the graphic simplicity of the current Dramatic chart and its operations.)

Let us examine first the structural portion of the model as it applies to hierarchies of neural networks and later define the dynamic forces at work upon and in conjunction with it.

The structure, independent of its complementary dynamics, has two parts: the matrix or framework and the items or units held within and organized by that framework.

The units (i.e. Classes, Types, Variations and Elements – each on a different *level* of the model) represent processes of the human mind. The framework represents the relationships among these mental processes and the manner in which their individual operations bring like processes together into conceptual families, much as the Periodic Table of Elements organizes its components into families such as the Rare Earths or Noble Gases.

The members of each family share certain common traits and relate to one another in distinct, definable, and predictable manners. This is true with the physical elements and, as we shall later see, with the elements of the mind as well.

For now, however, let us concentrate on the elements (units) themselves.

In the Dramatica model, each unit, regardless of its level or position, is not an object per se but represents a distinct and unique process of the mind, in fact, common to all minds.

For example, the Dramatica element “proaction” is not a thing or a state but describe the process by which the mind instigates an action of initiative, as opposed to one of reaction. “Reaction” is in there too, and represents the mental process that leads one to respond (or not) to a stimulus.

(Unlike a simple “Aware” system, a “Self-Aware” system may choose not to respond or react to a direct stimulus – for reasons driven by the action potential-altering variations imposed on the neural network by the local biochemistry as described above and as will be fully explored later in the section on Dynamics.)

To recap then, each of the 148 individually named units in the Dramatica Structural Chart represents an independent, definable, process of the mind and their position in the framework, both laterally and vertically, represents their close or distant association and interaction with all the others.

The structural portion of the model (at the most simplistic appreciation) represents a single, large neural network comprised of 148 different processes. But, as we shall now see, that not only over-simplifies the true nature of the model, but the true nature of the mind as well.

Originally, computers were single network processors. In recent years, consumer-level computers advanced to dual processors (co-processors) and even quad-processors. Watson, as I understand the system (based on a general description) employs many concurrent processors or neural networks, all functioning together to parse different aspects of a problem or purpose.

This sort of relationship among neural networks is described by any one of the four levels of Dramatica model, as each level lays out the necessary kinds of processes required to fully parse a problem or purpose at that level of detail and consideration.

So, for example, the top Class level has only four units and represents the computational power of a standard quad-processor. The next level down, the Type level, has sixteen individual processes and proposes that to completely and most efficiently parse down to the next level of detail (next magnitude of consideration) beyond quad-processing requires sixteen individual neural networks operating in conjunction on various aspects of the task at hand.

The third level of the model (an additional magnitude of detail) requires sixty-four unique units, and by the time we get to the lowest most detailed level it requires sixty-four other unique units, each represented four times in different conjunctions with its neighbors for a total of two hundred and fifty six units representing sixty-four different processes.

(Why the fourth level does not present 256 individual processes will be fully explored later, and actually represents another higher-order overseeing process of the mind. It is intriguing, but too divergent to explore at this early stage of our discussion).

As you may already have suspected, each of the four levels does not operate independently in a planar sense, but also interacts with the levels above and below.

Now this is a truly illuminating concept when applied to computer models of the mind. What the model predicts is not only that co-processors work best in multiples of four and that to completely and efficiently build such a system requires that the processes in each magnitude of four must fulfill very specific functions and relate to one another in very specific ways.

But even beyond that, in order to expand the detail and power of a processing system, larger processes, such as the Classes, must be comprised of smaller sub-processes, such as the Types, which are in turn comprised of even smaller processes, such as the Variations, which in turn are comprised of still smaller processes, the elements themselves.

To get a grip on the significance of this, let us consider Object Oriented Programming. In this system of developing software (such as C++), one does not design all operations as a single overall program. Rather, sub-routines are created (called objects) which can be called by the overall program at any time and assigned to a given task.

This creates an efficiency of effort as processes that are needed more than once do not have to be individually written or even individually included at their appropriate place in the overall program, but merely called into play when needed. This is the computer equivalent of “measure twice, cut once.”

Similarly, the units of Dramatica (at any level) are processes that are treated as objects in the model so we might observe, replicate, and predict how and when the program at large (the combination of our Awareness and Self-Awareness) calls on the processes, in what order, in what frequency, and in what pattern.

Now a program written in an object-oriented language is still a linear proposition on a single processor platform. In a dual-processor environment, the overall program, operating on one processor, can call a second object (process) into play on the second processor while it simultaneous engages in the next process required on its own initial processor. A quad-processor increases the speed and efficiency exponentially, and both the Dual and Quad arrangements move out of the linear realm and even offer the opportunity to engage in some basic pseudo-non-linear operations.

(Why they are "pseudo" non-linear is because they are all still controlled by the overlord program, rather than interacting as equal members of a more democratic lateral hierarchy.)

Rather than having just a single overseeing program, imagine that the top Class level of the Dramatica chart proposes four equal master programs, each affecting and being affected by the other three.

Picture each of the units in the Class level as a non-linear equation. In and of itself, it will progressively alter its output as that output is re-channeled as the value of the variables in the body of the equation itself. In essence, each unit in the Class level is a non-linear process, represented as an object.

Now, imagine that the results of each of the four processes not only feed back to its own unit, but are also added or applied to the results of each of the other three. In such a scenario, the output of each of the non-linear processes now changes and progresses in ways that begin to feel much more organic (not analog yet by any means, but less obviously predictable yet still discernable as meaningful patterns).

Pause for a moment to consider the implications of this intermediary step on our way to a full appreciation of the Dramatica model of the mind. We are proposing that the mind is not a single process but (at the highest or most broad-stroke level) can be best understood as four equally influential non-linear processes affecting each other in an almost relativistic self-regulating manner to create an overall system.

And yet, that is just the top level. We must now consider that the results of each of the four iterative processes are directly and continuously broadcast to the sub-processes beneath it in the second level down. What's more, because the parent process in any Class is also affected by the output of the other three Classes, their output is *indirectly* broadcast to the sub-processes beneath the original Class in its altered results.

And so, what alters the functioning of the underlying sub-processes is partly the direct input from above, and also the indirect input from the parents neighbors.

Now, we are going to take some leaps here (rather than belaboring our points), but I feel sufficient groundwork has been so far laid as to provide a solid landing.

The system described does not just apply between two level, but among all four. So, what happens in the processing of any one of the four Classes (of itself and as it is affected by the other three) is ultimately broadcast down all four level of the other three to the very roots of the entire structure.

Conversationally, what happens in Vegas does not stay in Vegas. Rather, as a trickle-down theory, all parts of the roots are fed by what happens in all of the leaves.

But wait, as with trees (or branch-trees for that matter), what happens in the roots also nourishes and informs what will be occurring in the leaves.

In other words, this flow of relativistically altered iterative output is not just from the top down, but from the bottom up as well.

Every one of the object units in the Dramatica model represents an independently functioning non-linear process of the mind at one magnitude or another. So, even the tiniest, lowliest process at the very bottom of the model in the most obscure corner is still generating iterative output on its own. And the output of the four units in the family under each parent unit is in fact what defines the operation and function of the parent unit by nature.

Again, conversationally, the children Units define the operations performed by the parent unit, while the output of the parent unit alters the variables of the child units.

And so, the Dramatica model represents a system wherein iterative processes affect one another directly laterally, and directly vertically, but also affect one other indirectly both laterally and vertically, altering not only the values of the variables but the functions of the operations in each independent iterative process.

All of this energy flow crosses over and through itself within the system, creating what might be loosely thought of as an ever evolving interference pattern in which standing waves and troughs rise up, hold their positions for a time, and even migrate through the matrix while maintaining their identities as peaks and troughs but moving on to affect other operations in the system as the action potential of the peak or trough comes into conjunction with other processes.

All of which brings us back to the functioning of neurons, the action potential, and how firing of the neuron occurs not only because of direct or even collective stimulation, but also because of the more analog affect of these migrating peaks and troughs of potential that increase or decrease the opportunity to fire at the local level and then move on through the system to apply their impact elsewhere – all a function of the biochemical side of the system.

And that, quite naturally reaches a point at which to conclude our initial exploration of the structural units of Dramatica and to move on to the remaining half of our structural model – the matrix framework: what it is and how it works. (Keeping in mind that both parts of structure comprise only half of the Dramatica model of the mind – the other half being the dynamics and the forces that alter the dynamics).

The Dramatica structural framework is all based on the quad. The quad is not just a convenient group of boxes into which the process-units of the structure can be placed and organized, but in fact, each quad also represents the nature of each unit and the relationships and interrelationships among all four units.

Each of these relationships can be represented as simple equations, in a truly mathematical sense, and taken together they comprise an exceedingly complex web of iterative interactions. While interesting, the mathematical side is really tangent (no pun intended) to the task at hand, though I will include some web links at the bottom of this article directly those interested in further self-punishment to some previous articles specifically addressing those topics.

To begin with, the four spaces in each quad represent the following:

In the upper left hand corner is the “K” position, which stands for Knowledge, one of the four principal components of the mind (more on this later).

In the lower right is the “T” position, which stands for Thought. Thought and Knowledge share a relationship not unlike Energy and Mass.

As energy can move mass around, so too can thought move distinct elements of knowledge around. In this way, complex massive objects can be created and complex systems of knowledge as well (not unlike the very model we are proposing in something of a self-incursive twist).

In the upper right is Ability, which (for reasons explained elsewhere – again, look for the links at the bottom of this article) is the mental equivalent of Space. A quick explanation in lay, inaccurate “Science Channel” terms would state that just as Mass is in space, but also defines the reaches of space, Knowledge is in Ability and defines its reaches as well. Ability, in short, is an assessment of what we know compared to what we don’t know, just as Space is an assessment of what is there compared to what isn’t. (Told, you – “Science Channel”.)

The fourth space in the lower left is Desire, which is the equivalent of Time – in short, Desire can only be felt by comparing what was to what is or what might be; moderated by the speed of progress toward or away from the preferable state.

Though these four items have been described in almost child-like terms, the equivalent of describing a painting by Leonardo using only the primary colors, they serve to get us in the ball park. Again, there are several much deeper articles on the internet that are far more elegant and compelling.

But for our overview understanding of the Dramatica model of the mind, all that is important to know that the relationships among these four items can be set down as T/K = AD. In other, even more obnoxiously simple words, Thought acted upon by Knowledge maintains an equilibrium with the product of Ability and Desire.

So what does *that* mean? First, consider Ability and Desire. Their product is Desirability. If Ability is zero, no matter how much Desire there is, motivation is zero. If Desire is zero, no matter how much Ability there is, motivation is zero. But for any positive values of Ability and Desire, there will be a certain degree of Desirability.

On the left hand side, Thought is *divided* by Knowledge – in other words, this equation describes inductive reasoning. Thought, which might go anywhere, is broken up into pieces, parceled out in closed processes as determined by what we know.

So, this particular equation (and there are many) denotes that our inductive reasoning, which drives our assessment of probabilities maintains itself in equilibrium with the Desirability of the subject under consideration. In short speak, our motivation is equal to the possibilities and, conversely, we consider possibilities in proportion to our motivation.

That sounds quite touchy-feely until you consider that with a little algebraic re-arrangement T/K = AD becomes T = KAD, which looks suspiciously like E=MC2. That is why I alluded to Knowledge being like Mass and Thought like energy in the beginning of this section. It is also why Chris and I named the theories pertaining to the mind, rather than to story, *Mental Relativity*, for they pertain to the relativistic nature of the iterative processes of the mind.

Though these kinds of contentions practically demand proof (or at least serious and detailed explanation), that is really beyond the scope and purpose of this particular article.

The point at hand is that there are many equations, each relatively simple in itself, but each having a unique nature determined not only by the equation de facto, but also by its relative position in relationship to the other equations represented in the matrix.

In a nutshell, why are there all these terms like proaction or reaction in the structural chart, and why are they positioned where they are? The answer is that the units do not exist independently of the structural matrix but because of it.

Each unit is really the very same process, but because of its position in relation to the other three units in its quad, and those above and below and laterally to it, the relativistic effect of the interacting iterative processes at different magnitudes of parents and children result in a specific systems of balance between internal functioning and external influence that are represented by position in the matrix.

So, the names of the units are arbitrary, in a sense, because it is really the matrix that defines each unit. But, for the model to be understood, other than in a mathematical manner, each unit is named for the nature of the system that unit represents.

And so we find Past in one quad under Universe and we find Memory in another quad under Mind. Because Past and Mind are in the same relative position in their respective quads beneath their parents, it holds true that Past is to Universe as Memory is to Mind.

This startling aspect of the semantics held by the structure is that the entire chart is a complex web of analogies by which any vector between two units on any levels anywhere in the structure share the same semantic relationship as any other two units that can be connected by the same vector.

What's more, putting the words themselves aside, this means that any two processes of the mind that are connected by specific direct and indirect relationships to any other process share an exactly identical mathematical (relativistic) relationship with any other two mental processes that are connected by exactly the same direct and indirect relationships – regardless of position overall position with the model (the mind) and regardless of the magnitude of one set compared with the other.

This is the heart of the Fractal Psychology concept in Dramatica that states that as individual processes of the mind come together to create an overall process, so too individual minds in the real world come together to create overall psychologies that function identically to the system of the individuals.

As a corollary, it infers that we all share the same underlying psychology – being defined as a system of mind – and that is what makes Dramatica's model culturally independent, just as the semantics in the structural chart could be replaced with words or symbols from any language, so long as the relationships among their meanings is identical to the relationships among the processes they represent, as dictated by their position in the matrix and the equations which drive it.

Well, it's all enough to give you a headache. But the final word on the structural side of the model as it pertains to creating a functioning artificial mind is that such a machine must be based on not on an arbitrary number of co-processors, but in groups of four neural networks which share specific relationships among themselves (which can be expressed in mathematical terms) and affect and are affect by each other and by other such families of four that are their parents and their children in a four level hierarchy of sub-processes.

Now, while I have not yet addressed such issues as why four levels, and why do the elements of the bottom level have only sixty-four unique names, each appearing four times in different conjunctions, that is for the wrap up at the end of this entire article.

At this time, we will suspend our discussion of the units and matrix and shift from exploring the structure to examining the dynamics that drive it.

As structure is divided into the units and the matrix, so too are the dynamics divided into two parts: those that rearrange the structure (a la the Rubik's Cube analogy earlier) and those that rearrange the dynamics themselves.

I'll begin with the former.

The Dramatica structure appears to be fixed affair – more like a 3D chess set in four levels than a "twist and turn" Rubik's cube. But that is just because the structural chart simply depicts an untwisted cube in which each side is a single color. In short, it depicts a mind at rest: a mind without an inequity.

There is no such balanced mind. The mind is a machine made of time. Every gear and pulley is a process within a process, like nested Russian dolls. But, if we froze a mind in mid-thought, it would look like the Dramatica chart if it also hadn't a care in the world.

Without unbalance there is no potential. Without potential there is no motivation. Without motivation there is neither inner consideration nor external activity.

So what is it that creates imbalance so as to propel the mind, and how does that mechanism work, exactly.

Dramatica Dynamics describe the forces that shift the balanced mind out of alignment, creating potential and therefore motivation and activity. This process is called *Justification*.

Justification is neither a good nor a bad thing. It is just a thing – a process that rearranges processes. Essentially, if we look within ourselves for a solution to a problem and find none, we then look outside ourselves to see if the solution lies there.

In truth, we may actually be the cause of the problem and not see it. This is what eventually leads to such things as the psychological phenomenon of *projection* in which we attribute qualities to people and things outside ourselves, rather than to ourselves where they belong.

The opposite of this is to attribute qualities to ourselves that really don't belong to us but to others or to other things. A belief in controlling the world through magic might be considered a projection form of justification. It can also appear as someone blaming themselves for something that isn't their fault.

The reasons for such manners of thought are quite complex and are again beyond the scope of this article describing how the Dramatica model might be employed to create an artificial mind. But suffice it to say that when we project, we shift the relative positions of where we perceive forces at work from inside to outside or vice versa.

This function (among many others) is represented in the Dramatica model by a dynamic that actually exchanges the positions of an internal unit with an external one. For example, at the top of the Dramatica chart are the four familiar units Universe, Physics, Mind and Psychology. In some stories, Universe and Mind may change positions on their diagonal or Physics and Psychology might along theirs.

When two units shift to each others position along a diagonal line, it is called a "flip" for want of a more psychologically savvy term.

But that isn't the only way in which units may change places. They might also shift around the quad as if it were a clock, ninety degrees to the right or to the left. This is called a "rotate" again, for want of something less mundane.

It is the combination of flips and rotates at different levels that determine how the model twists and turns from its neutral position into a potential that describes a particular mental state ready to be propelled forward by having wound up the spring of inner potential (a macroscopic fractal of the action potential way back down at the level of the individual neuron).

In Dramatica as it is applied to stories, there are eight dynamic questions which we call the eight *essential* questions, for it is they that determine all that needs be known to arrive at a complete storyform, save what the subject matter centers is.

Whereas the units in the structure may be thought of as processes driven by Awareness, the dynamics are the forces that act upon the processes driven by Self-Awareness.

Some questions determine whether a given quad will flip, rotate, do both or do neither. Others determine the axis of the flip or the direction of rotate. Still others determine if the flip or rotate will "take the children" from a lower level, or leave them behind when they move. (This represents the nature of cross-level justifications wherein some potentials are isolated to smaller lateral issues only whereas others affect whole quadrants of the mind in many levels at once.)

It is the necessity of nature of the dynamics that no truly human artificial mind might be built without an overlying system that, in fact, breaks an accurate balance among logical relationships and rearranges them in another stable but warped organization.

If we were only Aware, our minds would simply adapt or react to the momentary environment around us. When the environment changed, so would we. But with Self-Awareness, a mechanism exists by which we refuse to adapt and choose not to react, but rather warp ourselves to maintain the potential (motivation) to return to our original form at a later time.

In this manner we "hope" to outlast or create situations that are more in line with our inner arrangement than to simple match ourselves to whatever is.

Because of this delay factor in responding to stimuli in our environment, and because our individual experiences are all different (from the microscopic to the macroscopic) we are all twisted and turned into different configurations, yet share a common psychological system of Self-Awareness that even allows conditions such as neuroses to be diagnosed and treated, even though they may have been caused by complete different events.

There is far more to the dynamic side of the model than this, but to fully understand its functioning beyond being the driver of mental potential would require far too much time and many diagrams that, again, would divert from the purpose at large of this article.

And so, to the point, we leave behind our brief discussion of the Dynamics that drive the structure and turn our attention to the fourth and final aspect of the model, the other half of the Dynamic side, the forces that alter the Dynamics.

Earlier I mentioned the dynamic questions that determined flip, rotate, both or neither. Other questions determine which axis to flip and/or which direction to rotate. And the final group determined whether or not to take the children.

But there is a forth sort of question that alters the way the dynamics function. For example, if the dynamics have determined that a given quad is going to flip one way and rotate in a particular direction, this other manner of question might determine whether the flip or the rotate will be applied first.

Such a question might be the mental sex of the mind under study. Independent of physical gender is the gender of the mind – not as being masculine or feminine but as being spatially oriented or temporally oriented.

All Self-Aware minds explore their world in terms of Space and Time. (Aware minds only respond to Mass and Energy) It is the nature of Self-Awareness to justify, and thereby to create a delay factor in which the mind is able to recall an earlier situation and compare it to the current situation as our temporal thinking. Seeing patterns as opposed to just responding to substance is the spatial equivalent, born of the justification delay.

In spatial thinking we not only observe X, but can recall X while observing Y and thereby learn something of the relationship between X and Y – in essence, discerning a pattern.

In temporal thinking we not only experience situation W but also recall situation Z and thereby can cast a value judgment between the two – in essence, determining a preference. This is one illustration of why Desire is tied to Time, from a previous discussion.

Spatial thinkers first see the spatial patterns and then consider the temporal progression. Temporal thinkers first grasp the progression, then see the patterns.

Our Spatial sense is represented in our logic, or temporal sense in our feelings. We all have logic and feelings, but which one is our initial filter on our environment and which is the secondary filter is divided very nearly along gender lines.

It should be noted that male logic is not superior to female logic for they are both the same things. And female feelings are not superior to male feelings because they are the same. But women shade their logic with feeling and men temper their feelings with logic, creating two different systems at a foundational level, making each kind of mind adept at primary observation of space or time and secondary observation of the others.

Still, in the Dramatica model, this has nothing to do with the units in the structure. It has nothing to do with the construction of the matrix framework. It has nothing to do with the dynamics. It only affects one fourth of the forces that work on the structure to twist and turn it.

And yet, because every twist and turn is multiplied in its impact by the forces that work from quad to quad and level to level, a simple yet powerful difference emerges in the male mind model and the female mind model. In essence, where women see men as being very similar – say out of phase, men see women as being quite different, say 270 degrees out of phase. As a visual, place a man in a quad and a woman in the space next to him. They are both 90 and 270 degrees out of phase, depending on which way around the circle of the quad you rotate.

That is the essence of Mental Sex. There are very sound reasons to support mental sex based on neurology and also reasons why a mind must have a temporal or spatial bias or risk grid-locking in certain calculations. But again, that is beyond the scope of this article.

Finally, to sum up and simplify all that has been stated so far, no single processor or single neural network will ever support a truly self-aware mind. No combination of parallel processors or lateral neural networks, no matter how plentiful, will engender true self-awareness.

It is only through nested levels of iterative processes arranged in relationships as described by the quads (that mirror Mass, Energy, Space and Time and their mental equivalents, Knowledge, Thought, Ability and Desire) that affect and are affected by the output of each other, both laterally and vertically, that a true relativistic self-aware entity might artificially be created.

Simplified, as promised, man (or woman) does not think by logic alone. It is the blending of logic and feeling, space and time, binary and analog, particle and wave, both in opposition and combination that creates all the shades and splendor of the minds we call our own and the minds we may build.

Closing Thoughts

These articles have provided a glimpse into the Dramatica Theory of Story and its potential applications in the real world. For more information on its uses for story development, visit Melanie's web site at Storymind.com. For more information its uses for psychology and society, visit her blog at Dramaticapedia.com

You can also follow Melanie on Facebook (Storymind) or on Twitter @WritingTip.