Review Article

From Chimerism to Structured Association Technique Imagery Therapy

Tsunetsugu Munakata¹⁾

¹⁾ President, Institute of Emotive Cognitive Behavior Therapy Professor Emeritus of University of Tsukuba, Japan Founder of SAT Imagery Therapy Correspondence: munakata.tsunetsu.fn@u.tsukuba.ac.jp

Abstract

How we feel about the events we encounter is determined by how the amygdala evaluates them. According to a study using magnetic encephalography, we know that before our primary visual cortex process the target events, the amygdala has already been activated by our anticipatory emotions. Even though there are no external stress stimuli, some internal stress stimuli known as "sense of body discomfort" can also promote expressions of negative emotions in the amygdala, and the brain will come to recognize every form of stimuli as anticipatory emotions expressed as fear, anger, sadness, and suffering. As a result, things that are not visible become visible as dissociative phenomena. For example, strong negative emotions triggered by a sense of body discomfort are recognized by the fusiform gyrus as unpleasant facial expressions as dissociative phenomena. It is called the pareidolia effect to be programed in brain to recognize an aggregate of three points as a face. By the way, I believe that the chronic "sense of body discomfort" is triggered by the chronic tension between the host and the chimeric cell which is universally possessed in all individuals. This is because, since the immune cells of the host and chimera may attack each other in the vicinity of the chimeric cell due to inflammatory cytokine along with stress, inflammation, tissue damage, and pain are likely to develop as typified by autoimmune diseases. I say this because, when clients adopt the Structured Association Technique while their eyes are closed, they can use what comes to the right side of their brain to become aware of unpleasant facial expressions of the chimeras as pareidolia effect based on the "sense of body discomfort" they have. By utilizing Structured Association Technique, we will be able to use the right side of your brain, or the brain of Association (including image, inspiration, association, and intuition) effectively. If we guide a client to visualize a light image wrapped in warm color around her body discomfort, as a result, the client will begin to experience a sense of well-being. Next, if the client with such a sense of well-being visualizes the pleasant facial expression of the chimera, she selects surrogate face representatives that resembles from the list and the memories of that face become firmly fixed in her mind by keeping viewing that face. Then negative emotions will cease even if there are similar negative

emotions elicited by stress source. The client will be able to tackle her stressful problems in a proactive manner, thereby reducing or even removing any stress she may have. Keyword: Structured Association Technique, Imagery Therapy, Chimera, Surrogate Face Representatives, Amygdala

1. Everybody Has a Chimera in Their Body

It can be said that, to an expectant mother, the baby in her womb is a chimera. Biologically, chimera refers to a condition or an individual organism in which cells possessing different genetic information exist. Chimera comes from the Greek word "chimaera," a legendary animal that appears in Greek Mythology.

When a woman becomes pregnant, she is affected by the chimera in her womb called the fetus. For example, it is widely known that when a woman becomes pregnant, her preferences, moods, and behaviors change. Another but even more clear-cut example is provided by male homosexuals. While possessing the male sex chromosome, they also have preferences to engage in behaviors that are associated with women. This example suggests that gay males have female chimeras in their bodies that play a dominant role in their preferences, moods, and behaviors. Since genetic activities associated with female chimera are different from the activities of her host, they have preferences and emotions that are unique to a female, which results in the transmission to its frontal cortex of information concerning its desires and emotions as a woman. Of course, the host is unaware that the changes in its womanly preferences and behaviors are caused by its female chimera. As a result, the host believes the changes in their preferences and behaviors as their own.

The presence of chimeras is not unusual; rather it is a phenomenon that occurs between multiples or between the mother and her child who share the former's placenta (Bianchi et al, 1996; Nelson, 1996, 2008; Khosrotehrani et al, 2004 ; Trowsdale & Betz, 2006)

To illustrate, a phenomenon known as microchimerism (where a small number of cells that have different genetic origin continue to settle in the host individual) is observed between a mother and her child whereby the two share the cells that pass back and forth between them via the placenta. Based on this observation, it is safe to say that microchimerism is a phenomenon that occurs universally in all individuals.

The chimeric cells of the baby that have entered the mother's womb through the process of microchimerism will be present in the chimeric cells of its brother or sister when the mother becomes pregnant again. In the case of missed abortion, which often occurs unbeknownst to the mother, the fertilized egg, the embryo, or the fetus remains in the mother's womb even it is already dead. In cases like this, the mother will merely notice that she bled more or the blood was thicker than usual in her most recent menstrual period, but she will not know that she has had a miscarriage. Such cases of missed abortion suggest that there are many chimeras in the mother's womb that she is "not aware of."

Given that most studies on microchimerism focusing on the mother, one might believe impression that it is a phenomenon that occurs only in mother. However, since the mother and father come in contact with each other's mucous membrane through sexual intercourse, needless to say, and thus chimeras will also occur in the father.

Unusual cases of chimeric occurrence are superfecundation and superfetation (Malinowski et al, 2006; Bourgoin et al, 1995). Superfecundation refers to the fertilization of two or more ova from the same menstrual cycle by sperm from separate acts of sexual intercourse. Superfetation is the occurrence of ovulation from a different menstrual cycle while the mother is already pregnant (Hale, 2008). When an embryo or fetus resulting from superfecundation or superfetation becomes a victim of missed abortion, it fuses with the sibling that was conceived at the same time as if the two were conjoined twins. When this happens, the number of chimeras in the body increases significantly. They may spread to the lower half and upper half of the body, to the left half and right half of the body, and even through the entire body, thereby profoundly influencing the host herself. For example, the chimeras may instill in her a desire to end her life and thus make her suicide. At the SAT Therapy Centre of the Academy for Health Counseling, I provide therapy to help suicidal clients rid themselves of their death wish. On the basis of this experience, I believe the death wish that clients claim to have is not their own. I say this because by administering a certain kind of therapy, which I will discuss shortly, clients will be able to rid themselves of their death wish and ceased attempting to end their lives.

The client's desire to end own life may be rooted in the desire or emotion that the chimera of one of own relatives felt when it vanished in own womb. It may be that the client developed the desire to end own life because the amygdala response that compelled own relative's chimera to express its emotion hijacked own frontal cortex. In fact, the chimera's desire to die and the host's desire to live are in direct conflict, and I believe it is this mental conflict that causes the host to suffer and turn to psychotropic drugs and the like, ultimately driving own to conclude that suicide is the only course of action that will relieve own suffering.

In March 2007, the first case of fertilization of an ovum by a multitude of sperm (polyspermy) was reported in an academic journal (Wenk et al, 2007). The cause of the fertilization was not identified. The ovum that was fertilized by the multitude of sperm was born in the

individual body as a chimera containing a mixture of disparate genetic data (Souter et al, 2007). This means that different genes were present in different parts of the body. The DNA in the right leg was different from the DNA in the left leg. Gene A was present in the body but gene B was present only in the reproductive organs. Gene A was present in the left half of the body and gene B was present in the right half (including the reproductive organs). If a baby were to be conceived under these and relevant conditions, the DNA of the ovary on the left and the DNA of the ovary on the right would be different, as would the DNA of the testicle on the right and that of the testicle on the left. Thus baby A and baby B would be appraised as offspring of different fathers.

2. Anyone Can Be Affected by Multiple Personality

Usually the desires and emotions expressed in the genetic activities of our chimeras are experienced by the host as her own desires and emotions. Occasionally, the host may feel that "there is something inside me that I cannot control" or "there is something inside me that wants to know what I really am." In this way, the host herself may come to realize that there is something wrong with her. However, I believe that in most cases, the desires and emotions of the chimera and those of the host are experienced as one and the same.

I believe multiple personality disorder is a case in point for understanding the influence chimeras have on clients' emotions and behaviors. Clients afflicted with this disorder switch between 10-20 different personalities in accordance with the situation at hand. Studies have confirmed that such clients have a history of being abused by their families from their early childhood. This is supported by the atrophy of their hippocampus and amygdala (Vermetten, 2006).

In sum, it can be said that the hippocampus and amygdala atrophy enables clients to bear the hardship of living in an abusive family by removing their painful memories or episodes of emotions that they have had, thereby making it possible for them to survive in an abusive situation. Since clients are unable to remember the emotions and episodes they once experienced that they find themselves in a situation where they are unable to control themselves even when their personalities change in tandem with change in their situation.

Though this is not a widely held view, I will describe the reasons later in my opinion, I believe that even healthy individuals whose hippocampus and amygdala have not atrophied are also in a multiple personality situation where changes in the desires and emotions of several to more than 10 chimeras are observed and where the healthy individuals switch from one personality to another in accordance with the situation at hand. What distinguishes healthy individuals from those diagnosed with multiple personality disorder? Even when the situation changes and the personality is switched, since the hippocampus of healthy

individual has not atrophied, they are able to remember that fact and adjust their memories to match that personality switch so that people around them will not find them strange. This is how healthy individuals adapt to social norms.

When a chimera that possesses a variety of disparate desires and emotions is present and the information concerning the contradictory desires and emotions you have inside you is sent to the frontal cortex, that information comes into conflict with the chimera's disparate desires and emotions, thereby making it difficult to decide by yourself which course of action you should take that would be in accordance with the situation at hand. Or, even if you manage to decide by yourself, you will soon regret your choice. For example, let's say you are in a restaurant and want to order, but you find it hard to decide what to order, and even after you finally decide, however, when you notice what others have ordered, you end up regretting what you have just ordered. The same thing may happen to you many times. Deciding what to order will not be the only thing you have difficulty deciding. Indeed, you will find it hard to decide on a host of occasions during your lifetime, including: when you have to decide which school to attend to; what company to work for, which woman to marry with, and which medical treatment to have. And even after making your decisions, you will experience anxiety and regret.

Even in cases where you think you made your decisions by yourself, I believe you made them by relying on those around you, considering how others have made decisions in similar situations, or by taking into account the expectations of those around you so that they will not think you are strange. As a result, you are inclined to become disassociated from your true feelings. To put it plainly, the decisions you make are not your own. This is why, after making them, you regret your decisions regarding school, workplace, spouse, and medical treatment and end up losing any enthusiasm or hope you might have had when you made those decisions. It is possible that such disappointments are the root cause of your chronic stress.

	Exactly true	Roughly	Not true
		true	
1. I am the kind of person that tends to suppress self –	2	1	0
leening.			
2. I can't express individual opinion easily.	2	1	0
3. I mind others face and their words.	2	1	0
4. When I meet hard things, I can't bear pain all alone.	2	1	0
5. I am the kind of person that wants be appreciated by others.	2	1	0
6. I am the kind of person that makes great efforts according to the expectation of others.	2	1	0
7. I am not the kind of person that enforces one's own opinion.	2	1	0
8. I feel I'm not quite myself.	2	1	0
9. I think criticizing others is not a good thing.	2	1	0
10. I hope the very important person for me can understand me.	2	1	0

Table 1 Self-Repression Behavioral Characteristics Scale (T. Munakata)





Those who find it hard to make decisions based on their true feelings are inclined to score high on scales that measure various behavioral characteristics including self-repression, and interpersonal dependency. If an individual scores extremely high on these scales, they may develop personality disorders that make them vulnerable to mental, social and physical maladjustments

For example, take the test outlined in Table 1. As shown in Figure 1, the higher your score on the Self-Repression Behavioral Characteristics Scale (SBCS), the more you are

likely to worry about how others regard you, so much so that you are unable to make decisions based on your true feelings. As a result, those who score high on this scale usually develop stress and end up scoring over 50 on the Self-Rating Depression Scale (SDS) as well. Those who are able to make decisions based on their true feelings tend to score much lower, perhaps under 3. Generally speaking, anyone who scores 15 or higher on SBCS is likely to develop personality disorders that predispose them to become depressive.

Individuals who score high on SBCS do not know what their true desires and feelings are, so they have difficulty making decisions based on their true feelings, worry about how people around them regard them, and tend to sacrifice their own desires and feelings in the hopes of gaining the approval of those around them. Such individuals are likely to select behaviors that are disassociated from their true desires and emotions; as a result, they feel they are not being true to themselves and end up feeling self-hatred and depressed. I think self-repression behavior characteristics are those characteristics that manipulate and cause individuals to be disoriented by the various emotions and desires of chimeras that come into conflict inside their minds. Such individuals customarily avoid behaviors that will make people around them think they are strange.

3. Are Chimeras Harmful or Beneficial?

Lee Nelson, the leading authority in microchimerism research, maintains that in some situations chimeras are beneficial to us and in some other situations they have harmful consequences.

As you can see from the extreme right of Figure 3, when a cell of a mother is injured, since the chimera of her child is a stem cell, the chimera of her child (highlighted in green) will help repair her injured cell. When neither dialysis nor kidney transplant was available, becoming pregnant was considered to be the treatment of last resort for women with serious kidney illness. In those days, it seems that people already knew that the tissue of an injured kidney belonging to a pregnant woman would be regenerated. In all regions of the world, women universally live longer than men. This may be due to their ability to become pregnant, women have more chimeras than do men, which means that the injured tissues are constantly regenerating.





Lee Nelson, 2008

On the other hand, over 80 percent of those afflicted with autoimmune diseases are women. I believe this is because women have far more chimeras than men. As the two figures on the left of Figure 2 show, the cells of both the host tissue and the immune cells are non-self cells, which are likely to attack each other.

I believe the harmful aspects of chimeras are likely to manifest themselves when the client is under stress. This is because the body tends to become more sensitive to enemy aliens. When the body is under stress, noradrenaline is secreted at the ends of its sympathetic nerves. However, I believe the sensibility to noradrenaline of cell membrane receptors as cell memories will become intensified if their chimeras have a history of disappearing from the womb as individuals. Cell membrane receptors are receptors found at points where nerve cells exchange signals. It is at these points that synapses are formed and keep in touch with one another.

The number of synapses alternately increases and decreases and it is this fluctuation in the number of synapses that shape our sensibility. I believe that many of the chimeras that have disappeared function as synapses for noradrenaline – the substance that causes tension and excitement. Stated differently, cell membrane receptors are inclined to seek tension and excitement and have high sensibility to noradrenaline. When cell membrane receptors react to noradrenaline, positive ions such as Na⁺ and Ca²⁺ flow into the cells that surround the chimera cells. This causes the action potential of cell membrane receptors to rise and become excited. Nerve cells, muscle cells, and endocrine cells that have become part of the host tissue cause the electrical condition in and out of the cells to change and become excited. This exerts in the form of acute sympathetic nervous tone, thereby triggering a "sense of body discomfort" such as stiffness of the shoulders, pain in the chest, cold hands and feet, and stomach ache.

I believe that the chronic "sense of body discomfort" is triggered by the tension between the host tissue and the chimeric cell, as shown on the left of Figure 3. This is because, since the immune cells of the host and chimera attack each other to be likely to occur in the vicinity of the chimeric cell due to inflammatory cytokine, which, along with stress, releases macrophage, chronic inflammation, tissue damage, and pain are likely to develop as typified by autoimmune diseases.

4. Assumptions Regarding Chimeras' Facial Expressions That Sense of Body Discomforts Creates

How we feel about the phenomena and events we encounter is determined by how the amygdala emotionally evaluates them. For example, as we can see from Figure 3, the amygdala is known to contain face-responsive cells, which involved in processing unpleasant facial expressions that are perceived as external stressful stimuli, and create negative emotions (Hidehiko Takahashi et al, 2010). Additionally, as a result of these negative emotions, the fusiform gyrus located in the lower part of the temporal lobe recognizes them as unpleasant faces, which are then committed to memory. In another words, it becomes easier to make "assumptions regarding unpleasant faces that create bad human relationships.

Fig 3 the amygdala responds to fear expressions representation.



(Hidehiko Takahashi et al, 2010)

Incidentally, the amygdala reacts, not only to external stress stimuli, but also to stress stimuli inside the body, giving rise to negative emotions. For example, it is easy to understand that, when you feel pain in the hypogastric region and break into cold sweat, a sense of fear rears its head. You begin to be aware of the external stress stimuli that that sense of fear will now trigger.

According to an study conducted using magnetic encephalography (loannides, 2008), from one second before we identify the target stimuli in our primary visual cortex, the amygdala is already in a state of excitement as a result of our anticipatory emotions. This is analogous to being scared of seeing a ghost before going into a haunted house. Anticipatory emotions not only contain emotional memories of the past, but they are also generated by the body sense of discomfort that manifests itself as internal stress stimuli. Even though there are no external stress stimuli, if there are any internal stress stimuli known as "body sense of discomfort" that promote expressions of negative emotions in the amygdala, the brain will come to recognize every form of stimuli as anticipatory emotions expressed as fear, anger, sadness, and suffering. In other words, the recognition of external

stress stimuli triggered by negative emotions caused by "a sense of body discomfort" occurs even in peaceful situations where there is no real immediate danger, thus enabling the brain to anticipate the development of negative situation in the future.

The same could be said about facial recognition of people. Magnetoencephalographic studies show that if there is any "sense of body discomfort," as a result of interaction with the amygdala that generates negative emotions, the fusiform gyrus will recognize the unpleasant faces of those we meet, and those data will be sent to the frontal cortex within 3 seconds or thereabouts (loannides, 2008). That is to say, when we feel a sense of body discomfort, we are prone to develop negative emotions, form unpleasant facial recognition of people we meet, and end up exacerbating our relationships.

Incidentally, it is a well-known fact that external stress stimuli generate an acute "sense of body discomfort"– including headache, stiffness of the shoulders, throbbing of the heart, oppression of the chest, cold hands and feet, and stomach ache – as a form of sympathetic nerve strain reaction. However, since stress stimuli cause different parts of the body to become tense, the sympathetic nerve strain reaction is inadequate to explain which areas of the body will be targeted by the sympathetic nervous system. For the reasons cited earlier, I believe the areas where body discomfort is likely to be felt are in the vicinity of chimeras.

Whether acute or chronic, "a sense of body discomfort" will turn into stress stimuli that will affect the amygdala from the inside of body, thereby promoting expressions of negative emotions such as fear, dissatisfaction, sadness, and suffering.

In other words, how we feel phenomena and events will depend on how the amygdala responds. However, I guess that response by the amygdala is partly created by a sense of body discomfort that occurs in the vicinity of chimeric cells.

Additionally, even if there are no external stress stimuli, the amygdala will cause the sense of body discomfort to generate negative emotions such as fear, dissatisfaction, sadness, and suffering. As a result, things that are not visible as imaginative enemies will become visible as "dissociative phenomena" (that is, normally integrated phenomena such as consciousness, memory, and self-identity become disoriented and lost). For instance, if we walk through a grave in a forest all night long, we will eventually feel ghosts or the Grim Reaper. This is an example of a dissociative phenomenon that creates imaginative enemies.

Moreover, the fusiform gyrus is said to be programed to recognize an aggregate of three points as a face. This is what is known as the "pareidolia effect" (Figures 4, 5). I guess the pareidolia effect occurs when things that are not visible become visible as dissociative phenomena because negative emotions triggered by an internal stimulus or a sense of body discomfort are recognized by the fusiform gyrus as unpleasant facial expressions.



Fig 4 The fusiform gyrus is said to be programed to recognize an aggregate of three points as a face- pareidolia effects



Fig 5 A study looked at how pareidolia is produced by the brain (Hadjikhani et al, 2009)

*The brain images on the left show where the activation is in response to seeing a face-like object (the top brain), a real face (the middle brain), and a non-face-like object (the bottom brain). The area circled is the fusiform face area (FFA), and you can see quite clearly that it shows roughly the same pattern for real faces and face-like objects – compared with no activity when the subject is looking at a non-face-like object.

Stated differently, if there are no external stress stimuli, there will be situations where even an externally invisible sense of body discomfort occurring in the vicinity of a chimera will be induced to make itself visible or be perceived as a human face that "conjures up" an external enemy.

I say this because, when clients adopt the Structured Association Technique while their eyes are closed, they can use what comes to the right side of their brain to become aware of the information concerning the gender, age, expressions of their chimeras based on the "sense of body discomfort" they have.

For instance, let's assume that the anxiety the client feels at work is a stress stimulus. If we identify the specific background problem of that stress and have the client recall the landscape image of the problem, the client will develop "a sense of body discomfort." By adopting the procedure presented in Table 2, we can measure the client's stress level. Let's say it is 80%. Next, if we use that "sense of body discomfort in her back" to bring to light, among other things, the gender, age, and facial expression reflecting the chimera that the Structural Association Technique assumes is in client's back, the image with which the client will associate the chimera will be that of a man in his forties with an angry look on her face. I believe that the client formed that image because the body discomfort she felt was input to her amygdala and that information was then input to the fusiform gyrus.

Conversely, when the client recalls the image of that male in his forties with an angry look on his face, she feels tight in her back. This demonstrates the interaction between the unpleasant image and the body discomfort that she feels. Based on an experiment conducted using mice (Tsunematsu, 2011), the tightness the client feels in her back is probably the result of Na⁺ and Ca²⁺ and other positive ions flowing into the cells, thereby triggering a rise in action potential and generating excitement.

5. Changes in Assumptions Regarding Facial Expressions of Chimeras Achieved by Applying Light Imaging Method

In an experiment using the same mice, researchers found that, when yellow or other warm-color LED or laser beams with wavelengths ranging from 500 to 610 mm are input, a molecular reaction occurs in a photoreception pigment, Cl⁻ negative ion flows into the cell, the excitement is suppressed, and relaxes (Tsunematsu, 2011; Kaneda et al, 2011).

If we apply this way of thinking on a client and guide her to visualize a light image wrapped in warm color in her back, or have her see an actual color presentation, the molecules of the photoreception pigment that responds to the same color as the retina of the eye will react and cause the Cl⁻ negative ion to flow inside the chimeric cells and suppress their excitement. As a result, the client will begin to experience a sense of well-being characterized by being able to relax, feel warm, tender, good, safe, refreshed, and light.

Next, if client with such a sense of well-being visualizes the facial expression of the chimera, she will recall a male in his forties with a smile on his face, and her stress level will fall. When she selects a face that resembles the male in his forties from the list of surrogate

face representative presented in Figure 8 and stores that face in her smartphone or pastes it on her refrigerator and gives it frequent stimulation, the memories of that face become firmly fixed in her mind.

- Table 2 Developing a Sense of Well-Being As Opposed to a Sense of bodyDiscomfort by Using SAT Therapy and Surrogate Face Representatives of YourChimeras© Tsunetsugu Munakata
- Q1. Identify the unpleasant scenes that make you feel stressed. When you close your eyes and recall those unpleasant scenes, in which part of your body do you feel a sense of body discomfort—head, neck, shoulder, back, chest, arm, stomach, hands and feet, etc.? What would you say is the level of stress caused by that sense of body discomfort (0% ~100%)?
- Q2. Now close your eyes and try to feel those body discomforts. In a flash, what would you say is the gender of the chimera(s) that is feeling those discomforts? Is it a man or a woman? (If they are both, answer the following question separately.) What kind of facial expression does he or she have: frightened, anxious, angry, sad, or expressionless (multiple responses are permitted)? Would you say that the facial expression you are seeing is that of someone of your childhood generation, your siblings' generation, your parents' generation, or that of someone of the generation prior to your parents'? (Q2 should not be asked if the subject is suffering from mental anxiety.)
- Q3. Which warm-color light—golden yellow, yellow, cream, white, green, orange, pink, or sky blue—do you think protects you by alleviating the sense of body discomfort you feel? Select the one or one(s) that immediately comes to your mind. When you are protected by that light, what kind of image forms in your mind? Is it warm, soft, pleasant, reassuring, refreshing, or light (multiple responses are permitted)?
- Q4. What sort of facial expression does the person feeling such an image have—smile, gentle, dependable, forward-looking, pleasant, cheerful, spirited, kind, and so forth? Which of the faces included on the list of surrogate face representatives shown in Figure 6 does that person resemble most? Look at every surrogate face representative on the list before making your choice. Then, tell me the number of the face you've chosen.
- Q5. What would you say is the level of stress you have (0%~100%) when you look at the facial expression of the number you've chosen? Is there one or more than one person with that number? If there is more than one, how many of them would you like to have? When you look at that face, remember it, and close your eyes, in what part of your body is it present—head, throat, neck, shoulder, back, lower back, chest, stomach, arm, hands and feet, etc. If the stress level does not come down to zero, the patient should be urged to repeat Q3~Q5 until the stress level falls to zero.



Then negative emotions cease to be generated in response to stress as a form of external stimuli. The client will now be able to tackle her problems in a proactive manner, thereby reducing or even removing any work-related stress she may have. However, since there is more than one chimera in a given part of the body, it will be necessary to find surrogate face representatives of the many chimeras that are able to reduce the stress level the client feels in her back to zero.

In this way, we can observe the relationship between the client's sense of body discomfort and her recognition of an unpleasant facial expression, as well as the relationship between her sense of well-being and her recognition of a favorable facial expression. Stated differently, if you recall your mother's unpleasant facial expression with your eyes closed, a sense of body discomfort will be generated where your mother's chimeras are present, with the result that, for no apparent reason, your self-image becomes so damaged that you begin to hate yourself. Conversely, when you recall your client's faces the smiling or peaceful expression like the surrogate face representatives, you will feel a sense of well-being and you begin to like yourself. I believe even your clients' chimeras or the facial recognitions of the chimeras that vanished in your mother's womb and the facial expressions you are not aware of will differ depending on whether the body sensation of the area near those chimeras causes a sense of discomfort or that of well-being.

Many surrogate face representatives of chimeras are found in a host of mental diseases including depression, bipolar disorder, alcohol and drug dependence, conversion disorder, borderline personality disorder, dementia praecox, and developmental disorders. Chimeras are found in, among others, your parents' relatives, your siblings, and your children. But the most potent chimeras are those of your siblings. In cases where clients' condition went into remission after they received SAT imagery therapy, the number of surrogate face representatives of their siblings was between 10 and 20, which was empirically much greater than the five or so surrogate face representatives that clients suffering from general

anxiety disorder had. In the case of clients suffering from epilepsy and the like, clients had over 30 surrogate face representatives of siblings of their chimeras.

Particularly, in cases involving such conditions as bipolar disorder, dementia praecox, ADHD, autism spectrum disorder, intellectual disabilities, and epilepsy, clients often seek chimeric surrogate face representatives of monozygotic multiple births. It is conceivable that the pellucid zone of early embryos is genetically so thin that it is easily removed by antenatal infection, thus making it easier for the cleaved cells to split and become monozygotic multiple births.

In other words, it appears that there are many genetically identical clone chimeras, and it is generally the case that clients feel safer if they have many identical surrogate face representatives. Since children born of monozygotic multiple births are inherently prone to lose their siblings, it may be that they had been living side-by-side with the chimeras of their lost siblings from the time they were in their mother's womb sharing the same placenta.

According to development studies of children born of monozygotic multiple births, even though their genetic activities were identical at the time of their births, the subjects that they are good at will vary depending on what kind of environment they grow up in. For example, one of the identical twins is good at sports, while the other is good at science. In this connection, it should be noted that the womb environment of multiple fetuses that survive and that of multiple fetuses that vanish are different. Consequently, even if they both engaged in the same genetic activities until the latter vanished, the two groups of fetuses would have had subtly different desires and emotions. This is why it is so difficult for clients born of monozygotic multiple births to decide which course of action to take when they are presented with a diverse range of options. Perhaps this is why such clients become overly reliant on those around them or choose the course of action that they feel will meet the expectations of those around them, even if it is completely different from their own true desires and emotions. I personally believe this is why such clients are dissatisfied with the course of action they have chosen, lose their desires and hopes, and end up creating the cause of their chronic stress and difficult-to-treat mental disorders.

Moreover, I believe that not only clients afflicted with mental disorders but also those suffering from such physical disorders as lifestyle diseases, cancer, and autoimmune disease behave in ways that belie their true feelings and desires, and instead adapt themselves excessively to the expectations of people around them. As a result, they develop chronic stress that is converted into chronic inflammation.

For example, on the basis of our experiences with SAT Imagery Theory, with regard to diabetes, cancers (including breast, cervical, ovarian, colon, lung, prostate, bladder, etc.) and autoimmune diseases (chronic ulcerative colitis, systemic lupus erythematosus, graves

disease, chronic thyroiditis, etc.), even counting only the number of surrogate face representatives of siblings that have rather strong impact on their hosts, clients in remission have about 10 such surrogate face representative(Nakashima and Munakata, 2013; Yajima and Munakata, 2013). This is about the same number of surrogate face representatives that clients with depression have, or half the number that clients afflicted with joint rheumatism have.

If, on the basis of this benchmark, we deliberately identify the number of surrogate face representatives of her chimera siblings, we will be able to lessen the client's pain that much faster and effect that much more improvement in her condition. The significance of realizing these target numbers of chimera surrogates face representatives is that, by identifying all of the surrogate face representatives of the chimera siblings, the client will be able to strengthen the positive image of her chimeras while changing her own negative emotions and desires.

Indeed, realizing the target number of surrogate face representatives of our chimera siblings is indispensable for our emotional stability.

6. From Chronic Stress to a Self-Rewarding Type Lifestyle

By worrying about the expectations of those around us and not being able to make our own decisions, we end up diverging from your true self and over adapting to those expectations. Thus we need to free ourselves from a lifestyle that creates chronic stress, which causes first chronic inflammation then chronic disorders.

It is conceivable that the chronic stress we usually have is produced by the activities in the left side of our brain, which is sometimes referred to as the common sense or working brain that lays great store on social norms because it is in this part of the brain that controls speech. For example, by sacrificing our true desires and feelings, we make it easier for the left side of our brain to accumulate stress. But when we allow stress to be accumulated, we are likely to adopt a coping method that compels us to turn to such things as alcohol, sex, drugs, and excess work. That kind of coping method not only sacrifices true desires and emotions, but also made our brain difficulty recognizing emotions, thus causing the stress to last longer. As a result, the lowering and rising of chronic inflammation becomes a normal occurrence, thus making us susceptible to various forms of lifestyle disease including mental disorders.

I believe chronic stress can be dealt with effectively by trusting, not the left side of the brain, but the right side. This is because, instead of being obsessed with conventional thinking, the right side of the brain capitalizes on inspirations and images. By using the right side of the brain, we can restore our true selves and build self-esteem and self-respect.

When making important life choices including: school, company/employment, marriage, and medical treatment, it is better not to use the left side or logical side of the brain. If you use the right side of the brain, the problem-solving and creative brain, where intuitions and inspirations are triggered, you will be able to choose a course of action that will enable you, intuitively, to adjust the desires and feelings of a multitude of chimeras so that they will be more compatible with the desires and feelings of the host. I believe that through the experience of a successful utilization of the left side of your brain, you will gain self-confidence and thus be able to eliminate chronic stress.

SAT Imagery Therapy is designed to help you have a successful experience of using the right side of your brain. By utilizing such Structured Methods (e.g. asking questions, listening to questions, answering questions, and imaging), you will be able to effectively use the right side of your brain, or the brain of Association (including image, body sense, inspiration, association, and intuition). And on the basis of those associations, you will be able to solve problems that arise by yourself, promote a lifestyle based on self-trust and trust of others. In sum, SAT Imagery Therapy can be thought of as a repeatable Technique that enables you to change your lifestyle from an "other-directed rewarding type that aims to gain the approval of others" to "self-rewarding type that aims to both gain approval for the self as well as approval for others."

References

Bianchi, DW; Zickwold GK, Weil GJ, Sylvester S, DeMaria MA. (1996). Male fetal progenitor cells persist in maternal blood for as long as 27 years postpartum. *Proc Natl Acad Sci U S A* 93 (2): 705–708.

Bourgoin P, Marc J, Merger C, Delatte JN (1995). Indisputable double paternity in dizygous twins. Journal de gynécologie, obstétrique et biologie de la reproduction 24 (4): 440-3.

Hadjikhani, N., Kveraga, K., Naik, P., & Ahlfors, S. P. (2009). Early (M170) activation of face-specific cortex by face-like objects. *Neuroreport*, *20 (4)*, 403-7

Hale, Beth(15 January 2008). The babies born just a minute apart who AREN'T twins, *The Daily Mail*, Associated Newspapers, Ltd.

Ioannides, AA (2008). Dynamic Brain Imaging: Multi-Modal Methods and In Vivo Applications, Series: Methods in Molecular Biology Volume: 489: 167-188. SpringerProtocols

Kaneda, K, Kasahara, H, Matsui, R, Katoh, T, Mizukami, H,Ozawa, K, Watanabe, D, Isa, T(2011). Selective Optical Control of Synaptic Transmission in the Subcortical Visual Pathway by Activation of Viral Vector-Expressed halorhodopsin. *Plos One* 6(4): e18452.

Khosrotehrani, K; Johnson KL, Cha DH, Salomon RN, Bianchi DW (2004). Transfer of fetal cells with multilineage potential to maternal tissue. *Journal of the American Medical Association* 292 (1): 75–80.

Nelson, JL (1996). Maternal-fetal immunology and autoimmune disease: is some autoimmune disease auto-alloimmune or allo-autoimmune? *Arthritis Rheum* **39** (2): 191–194.

Nelson, JL (2008). Your Cells Are My Cells, *Scientific American Magazine*. January 17: 72-79, 2008

Malinowski W, Waszyński E (2006 Oct). "Superfecundation in etiology of twin pregnancy". *Ginekologia polska* 77 (10): 797-803.

Munakata, T, Nakao, T, Fujita, K, and Suwa, S (1986). Stressors and Mental Health of Citizens Living in a Tokyo Suburban Area, Mental Health Study 32: 47-65, Japan National Institute of Mental Health.

Nakashima, K, Munakata, T(2013). A Case Study of the Structured Association Technique Therapy for Person with Fibromyalgia, Journal of Health Counseling 19: 55-63.

Yajima, K and Munakata, T(2013). Effects of SAT Imagery Therapy on Combined Multiple Extensive Prescription Drug User with Major Depression Disorder, Journal of Health Counseling 19: 21-30.

Souter VL, Parisi MA, Nyholt DR, Kapur RP, Henders AK, Opheim KE, Gunther DF, Mitchell ME, Glass IA, Montgomery GW (2007). A case of true hermaphroditism reveals an unusual mechanism of twinning. *Human Genetics* **121** (2): 179-85.

Takahashi H, Takano H, Kodaka F, Arakawa R, Yamada M, Otsuka T, Hirano Y, Kikyo H, Okubo Y, Kato M, Obata T, Ito H, Suhara T(2010). Contribution of dopamine D1 and D2 receptors to amygdala activity in human. *J Neurosci.* 30(8): 3043-7.

Trowsdale J, Betz AG(2006 Mar). Mother's little helpers: mechanisms of maternal-fetal tolerance. *Nat Immunol:* 7(3):241-6.

Tsunematsu T, Kilduff TS, Boyden, ES, Takahashi, S, Tominaga, M, Yamanaka, A (2011).

Acute optogenetic silencing of orexin/hypocretin neurons induces slow wave sleep in mice.

J Neurosci. 31(29): 10529-10539.

Wenk RE, Houtz T, Brooks M, Chiafari FA (2007). Semi-identical' twins discovered". *News@Nature* (26 March).

Vermetten, E, Schmahl, C, Lindner, S, Loewenstein, RJ, Bremner, JD (2006). Hippocampal and Amygdalar Volumes in Dissociative Identity Disorder. *Am J Psychiatry* 163:630-636.