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Gene Expression with Chemical Modification Induced by SAT Imagery Therapy

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Abstract

Whole genome analysis of a female patient with thyroid gland cancer was carried out using microarrays. During 2 rounds of structured association technique (SAT) imagery therapy, many genes including tumor-suppressor genes were shown in the “on-off” condition. Simultaneously, the methylation and acetylation reactions were also confirmed to occur. Our results showed that the SAT imagery therapy regulated the expression of genes, without causing any side effect, in accordance with the “on-off” mechanism. Moreover, during the 6 courses of the SAT imagery therapy, the number of white blood cell and lymphocyte increased to ~150%.

Key Words

cancer, methylation, microarray, whole genome, SAT imagery therapy,

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1. Introduction

Gene expression is known to be influenced by the environment; this is known as epigenetics¹⁾. Methylation and acetylation have been reported to be the main mechanisms underlying the epigenetic regulation of genes²⁾.

SAT imagery therapy for patients with various types of cancer has been found to lead to an increase in the expression of the tumor-suppressor genes such as *p53*, *RB*, *RUNX3*, and *BRCA2*, by more than 200%. These findings indicate that the change of subconscious stress images is effective in regulating tumor-suppressor gene expression^{3,4)}. However, it remains unclear whether the regulation of gene expression by SAT imagery therapy involves methylation and acetylation processes.

Accordingly, in this study, a whole genome analysis of a female patient with thyroid cancer was performed using a microarray approach. In this analysis, we could observe not only the up- and down-regulation of many genes, including tumor-suppressor genes, in response to SAT imagery therapy, but also found that methylation and acetylation reactions were involved in this “on-off” process. Our findings strongly suggest that the same epigenetic mechanisms are involved in the regulation of gene expression through structured association technique (SAT) imagery therapy, and these provide valuable pointers for further investigation.

2. Method

2-1. Application of SAT imagery therapy to the cancer patient

Having explained the scientific grounds of SAT imagery therapy and some precedents to cancer patients who wished to receive this treatment, we also provided the patients with information on the assessment of genes. After obtaining their written consent, we started the therapy.

All the therapy and evaluations were carried out with the permission of the ethics committee of School of comprehensive Human Sciences, University of Tsukuba.

2-2. Personal background and medical history of the patient

The subject of this study was a 32-years-old female patient who had been diagnosed with thyroid gland cancer in June 2008. At that time, metastasis to the lymph nodes was also identified. Her thyroid gland was surgically removed. In October 2008, she received one course of X-ray radiation therapy. In December 2008, she started SAT imagery therapy. The main theme throughout her SAT imagery therapy was the relationships with her supervisor and her mother.

She had married at 20 years of age, and divorced her husband 2 years later due to his marital unfaithfulness. She raised their son by herself, who was 3-years-old when they divorced. She had had a good relationship with the wife of her president (president of the corporation she worked for); however, when this president’s wife became her supervisor, she became extremely depressed, with ambivalent emotions for her supervisor.

She underwent 6 courses of SAT imagery therapy at the O-clinic in Tokyo metropolitan.

2-3. Physiological data

Since the pre-intervention data were to be used as base-line data, we obtained blood from the patient before the first round of SAT imagery therapy, and measured the blood components and expression levels of tumor-suppressor genes (*p53*, *RB*, *RUNX3*, *BRCA2*) therein. From the second therapy onward, we obtained blood samples after each round of therapy. The whole genome expression measurement was carried out at DNA Chip Research Inc.; the criteria for the “on-off” status of genes were set at 150% and 67% for “on” and “off,” respectively. The details of this procedure have been reported in a previous paper⁵.

3. Results

3-1. Progress of therapy

Six rounds of SAT therapy were performed with this client. In the first and the second rounds of the therapy, physical signs such as a stiff neck and her anxiety related to her new job she wanted to start in near future were treated; at this time, ideal images had been found for not only her parents, but also for unborn persons, such as an elder brother, a child, and 2 paternal aunts (Figure 1). During the third round of therapy, unconscious anger, which is common to patients with thyroid cancer, was treated. Through modification of the image of her maternal ancestors, she realized her script to be expressed as “wishing to do everything herself in isolation”, which she had done repeatedly throughout her life. A new script was instituted for her, viz., “depend on other people and make use of other people”. During the fifth round of therapy, she recognized the existence of her own elder sister, who was one of the triplets, from the physical signs on her neck and shoulder. Consequently, by applying a photograph of a famous woman as an ideal image, she succeeded in controlling her physical signs. During the sixth and last round of therapy, we reviewed her previous 5 sessions and confirmed the improvement of her data and emotional well-being, and then the therapy was concluded.

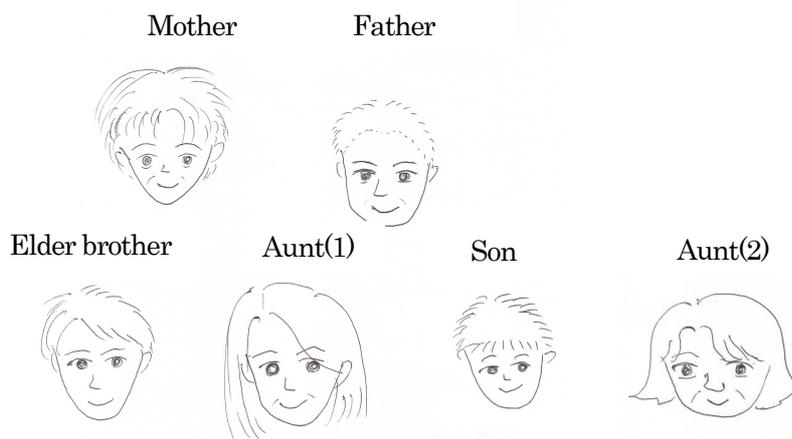
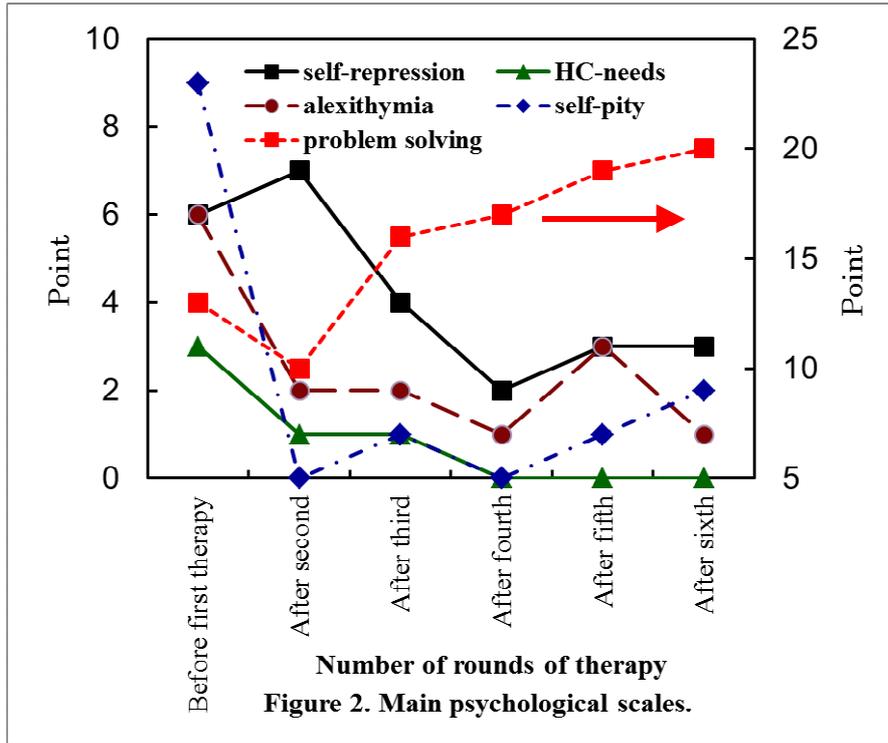


Figure 1. Ideal images found for parents and unborn members such as an elder brother, a child and 2 paternal aunts

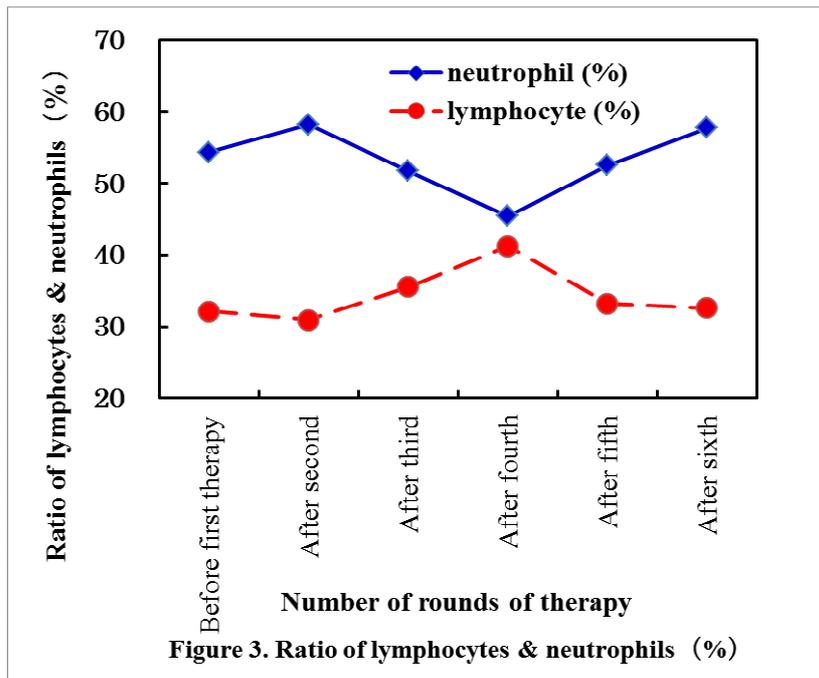
3-2. Psychological scales

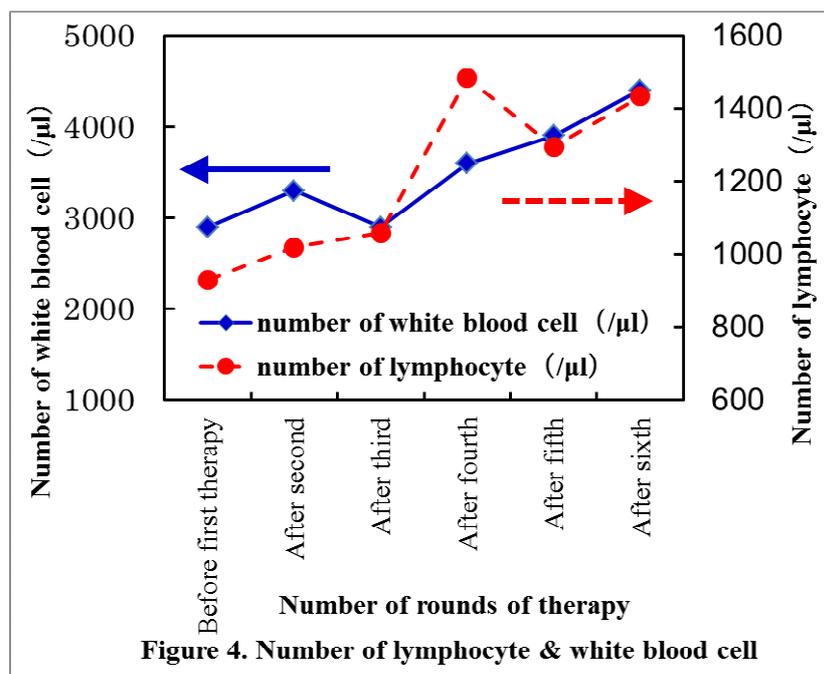
Figure 2 shows the change in her behavioral traits involving the stress response. Remarkable improvement was observed in the self-pity type of behavior trait (reduction from 9 points to 2 points) and the problem-solving type of behavior trait (increase from 10-13 points to 16-20 points). The self-repression behavior trait and the alexithymia characteristic also showed noticeable improvement. The points involving self-denial and PTSS scales had disappeared.



3-3. Component of White blood cell counts

Unconscious stress images are reflected in the white blood cell counts, especially in the ratio of lymphocytes and neutrophils. Figure 3 shows the appropriate progress in this ratio through 6 rounds of therapy. The number of lymphocytes, after being decreased by X-ray radiation therapy, increased markedly from 930/ μ l (before the first round of therapy) to 1300–1500/ μ l (after the 4th–6th rounds of therapy), as shown in Figure 4.





3-4. Whole genome analysis

It has been confirmed that, among 41,000 human genes, 27,636 different genes are found at the tips of chromosome. During the first and second round of therapy, the expression of 3,495 genes was found to change; of these, the expression of 1,251 genes was increased, and that of 2,244 genes decreased.

Of the tumor-suppressor genes, the expression of 124 genes changed. In particular, the expression of 63 of these genes, including *TP53*, *RUNX2*, *PML*, *RBI*, etc., was increased (*RBI* increased 1.28 times), while that of 61 genes, including *SU212*, *TUSC2*, etc., were decreased. *PML* is known to be a tumor-suppressor gene that plays a role in leukemia. Gene ontology analysis for the biological processes involved in the results of this whole genome scan revealed that the genes differentially regulated were typically involved in chromatin modification, such as methylation and acetylation (FDR<0.0001).

4. Discussion and conclusion

In this study, we show that SAT imagery therapy effects the regulation of tumor-suppressor genes through chemical modification of the DNA, such as methylation and acetylation processes, for the first time, suggesting the effectiveness of SAT imagery therapy in mediating genetic treatment.

Unexpected side effects are generally observed with pharmaceutical treatments; on the contrary, no side effects occur with SAT imagery therapy. Although only 1 case has been investigated here, our results indicated that the differential regulation of genes found with SAT imagery therapy involves the same regulatory mechanisms, i.e., methylation and acetylation, which are commonly involved in epigenetic regulation of gene expression.

Consequently, it is important to analyze the biological and chemical processes involved in the differential regulation of genes through SAT imagery therapy in more detail.

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Case Study

A Case Report of Mental Health Improvement of a Marriageable-Age Lovelorn Female by SAT Imagery Therapy

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Abstract

In China, the public believe that the best stage for a female to get married is between ages 25 and 28. During these ages, this group of females encounters pressures from family expectations, and stressors from social responsibility. They often suffer more negative mental health issues from lovelorn experience than females under 25 years. Their mental world are easier disturbed by external influences. The traumatic early childhood experiences of this group often affect their cognition. The current research estimated the effectiveness of SAT Imagery Therapy in the Chinese culture. The subject was a 25-year-old marriageable-age lovelorn female. SAT Imagery Therapy strategy was utilized to help her overcome the social life difficulties of lovelorn experience. The result indicated that she got better psychologically,

indicating that SAT imagery therapy may be effective in the Chinese culture.

Key words: Marriageable Age, Lovelorn Female, Chinese, SAT Imagery Therapy

1. Introduction

According to the Chinese law of marriage, females can get married after 20 years old. But in real life, more than 90% of females consider the best marriage age to be between 23 and 26 years. A lot of females think that the chance to get married after 25 decreases gradually. On the other hand, about 65% of males regard females between ages 25-28 as their ideal marriage partner¹⁾. They insist that the chance to get married for females older than 28 years drops sharply. As a result of many factors, females' marriageable ages are shorter than those of males. Females often feel heavier marriage-expectancy related stress. Expectedly, parents who have older daughters bear higher marriage-related anxiety than parents who have older sons.

Worry about future marriage exists among all single women client aged from 25 to 28 years. Compared with 20-year-olds, 25-year-old lovelorn ladies feel much more stress as a result of higher social responsibility and family expectation. Sad experiences when they were younger could affect their later life cognition of reality. Therefore, lovelorn ladies at this age tend to be more sentimental and experience higher mental fluctuations. They usually have more negative self-image and manifest higher suspicious of the world around²⁾.

The subject of this case study was a 25-year-old lady who recently had a failed love. After treatment with SAT image-therapy³⁾, her mental condition improved greatly within a short period: both her work and life went really well. It seemed apparent that SAT imagery therapy may have

impressive effect even in the Chinese culture.

2. Case Introduction

2.1 Case background

Client: **A**, 25 years old, primary school teacher, and extroversive female (self evaluation).

Falling in love with her ex-boyfriend for 3 months, she was being criticized by him and eventually he broke up with her.

Mental situation : She felt extreme sadness, lonely and lost her sense of security. She had working stress, experienced noisy work environment, high expectations from school and students' parents. She wished to change her job. While growing up with her grandmother, she heard, "I don't want you" and "I send you to someone else" in her early childhood; lived with her parents for not more 1 year before she became 18; parents were usually quarreling; In her memory, her mother never helped her in her study, but always had high expectations from her; her father always complained about her and had no sense of family responsibility towards her.

Genetic temperament factors⁴): **A** showed cyclothymia - the desire of getting acceptance from others; the difficulty to deal with aloneness. Adherence - easy to build up high expectation and requirements towards the self or others. Anxiety - easy to get into the feeling of woolgather, pessimism and hopelessness. Novelty - lack of the persistence of repeated work.

Behavioral traits factors³): **A** had self-suppression – high difficulties to disclose inner feeling and desire. Interpersonal dependence – high low self-esteem to make decisions, high expectation towards others, hard to get satisfaction. Problem solving – low lack of the resource to deal with the problem, poor problem-solving skills. Difficulty to feel emotion –

high repression of own weakness, hard to feel others' understanding. Self-denial – high inferiority complex of loveless experience, loss of hope for the future. PTSS - high, stressful fetal period.

A's Genetic temperament scores showed that she had cyclothymia, adherence, anxiety, and novelty. Her behavioral traits scores are shown in Table1.

Table 1. A's behavioral traits scores before SAT counseling

Scale	Standard Scores	A's Scores
Self-restrain	Below 6	10
Interpersonal dependence	Below 4	11
Problem solving	Over 15	7
Difficulty to feel emotion	Below 5	13
Self-denial	0	6
PTSS	0	7

It may be observed that A's lifestyle is "other-reward"; she has the tendency to lose her "original self". The coping strategy for A is changing her lifestyle from other-reward to "self-reward"⁵). The objective of such strategy is self-discovery by enhancing her resilience to other-reward tendencies, which may precipitate increased self-esteem.

2.2 Case Analysis

Present stress factors: the feeling of unacceptability and abandonment that A's boyfriend inflicted on her significantly increased her feeling of self-denial and anxiety.

Meanwhile, **A** also had feelings of exhaustion and mental burnout due to factors such as homesickness, competition with others, noisy and crowded environment, high expectations from elders and mal-relationship with her workplace colleagues.

Future and past stress factors: The uncertainty about her future career as well as the insecurity from not being married were part of the sources of her stress. Moreover, **A**'s childhood development caused her "love desire" to be unfulfilled and made her to be so afraid of abandonment; thus she formed negative self-image for almost everyone around. In the meantime, **A**'s parents were too quarrelsome to show interest in her studies. They still placed high expectations on her shoulders and complained about her behaviors. Her family had low problem-solving and conflict avoidance tendencies. **A** feared about quarreling and bore others' expectation tendencies since her childhood. In addition, **A** could not obtain unconditional love from her parents, such that she lost her self-confidence and built up her whole life values on others' expectation. When she failed in her relationship with her ex-boyfriend, her feeling of self-denial increased.

3. Result

3.1 Counseling Process:

First Session

Date	Early December, 2011
Technique	SAT listening skill ⁶⁾
A 's status	break up with her boyfriend two weeks ago; unstable mood; low self-esteem; the feeling of fear, aloneness and unhappiness
Objective	Understand her feeling and reduce some of her negative response
Result	calm down

Second Session

Date	Mid-December, 2011
Technique	SAT behavior change and support skill ⁷⁾
A's status	<p>Afraid of self development</p> <p>Afraid of her ex-boy friend will date a better woman</p> <p>The main feeling: <u>insecurity & anger</u></p> <p>The score of stress: <u>80%</u></p> <p>Negative feeling: <u>fear, unsatisfied, distrust, hate, self disgust</u></p> <p>Internal voice: <u>Do not leave me alone, help me</u></p> <p>Sad scenery imagination: <u>one day of A's primary school time, when she was in her grandmother's home, she had a dinner with her uncle. She really wanted to have a piece of beef. So she took up her chopsticks and was trying to get that piece of beef from the dish. Suddenly, her uncle beat her hand with his chopsticks and told her that she did not deserve to eat much meat. Eventually, she had to apologize to her uncle.</u></p> <p>Comparison between past and current events: <u>the client was not able to disclose her standpoint, so that she could only catch her own feeling of frustration and deliver the unhappy behavior without reason, when her boyfriend could not be with her. One by one, her ex-boyfriend hardly bear her unreasonable response and to be sick of her dependence. On the other hand, once she could not fulfill her need of security, she only recognized the anger from inside herself and ascribed the feeling to destiny.</u></p> <p>Action goal:</p> <ol style="list-style-type: none"> <u>1. SMS to her ex-boy friend, wish him well. (90% of applied confidence)</u> <u>2. Take care of herself, do not suspect others. (80% of applied confidence)</u>
Objective	The score of stress (after the session): <u>30%</u>
Result	decrease the degree of stress

Third Session

Date	April 7 th , 2012
Technique	SAT temperament coaching and Health Counseling ⁴⁾
A's status	Still have the attachment bond with her ex-BF; feeling low confidence and lonely; distracted her work by lovelorn experience; expected the counseling session
Objective	To understand A's Genetic temperament by herself in order to comprehend the reason of her stress and learn the relevant self-care action.
Result	A found some answers to her problems; still feeling not so confident

Fourth Session

Date	April 21 st , 2012
Technique	SAT Self Imagery Adjustment Method ⁸⁾
A's status	<p>More calm down; more open-minded to talk and share; accept the truth and learn how to be independent; more effectiveness of work; have confusion towards the relationship between her and her parents; feel unsure of an intimate relationship</p> <p>Ideal Self: <u>Have a strong heart and independent.</u></p> <p>Confidence Level: <u>20%</u>; Ideal Confidence Level: <u>80%</u></p> <p>Spiritual keyperson Imagery Method: <u>Hope to have an elder brother or sister. The temperament of her brother was Cyclothemia & Viscosity as well as his/her sister was Cyclothemia & Autisticism. Once a client had such kind of siblings, he or she would be easier to show open-minded, confident, relax, peaceful and warm feelings.</u></p> <p>Universe Self Imagery Method: <u>Hope to be surrounded by golden sunlight and being protected. The favorite action of the client was helping others in order to getting along with them on friendly terms. After achieved her purpose, she felt stable moods such as peaceful, joyful and meaningful.</u></p>
Objective	After 5 years, the confidence level becomes <u>80%</u>
Result	By means of counseling sessions, A realized her weakness attributable to her parenting style. For example, she had high similarities of lifestyle compared with her parents such as hard to reach peaceful mind, to feel empty, self-fish and substance-based. Especially, complaint and finding excuse were apparently inherited from her father. Thereby, she decided to be herself rather than looking forward to others'.

Fifth Session

Date	May 5 th , 2012
Technique	Ideal parents imagery method ⁹⁾
A's status	Achieve the success by applying the counseling outcome towards her parents; more active and effective work
Objective	<p>Re-recognize her parents and increase relationship</p> <p>Real father : <u>impetuous, avoiding problem solving, complaint</u></p> <p>Real mother : <u>No sense of responsibility, don't care of herself</u></p> <p>Ideal father: <u>Yan-hong Li, The CEO of Baidu internet company, skillful, well-educated, rich</u></p> <p>Ideal mother : <u>The wife of Li's, well-educated, classic, unique.</u></p> <p>Ideal self : <u>Sunny, open-minded, complete personality</u></p> <p>The strengths of parents with ideal self version :</p> <p>Father : <u>Working hard, be responsible for the family</u></p> <p>Mother : <u>Model house wife, sacrificed everything for family</u></p>
Result	A realized that love come from heart; everyone can feel; every parent has their own difficulty; no one is the worst.

Sixth Session

Date	May 19 th , 2012
Technique	Human relationship Adjustment Method ⁴⁾
A's status	Less the complaint towards her parents, transfer the focus on her work.
Objective	understand self and others, know about how to build a good relationship Target person: <u>partner in work</u> The score of interpersonal relationship: <u>-1 to 2</u> The score of stress: <u>70% to 50%</u>
Result	A realized her over-expectation to her working partner. Furthermore, A also realized her ex-BF did the same thing to her that made her feel down and low self-esteem. Therefore, she decided to let the previous intimate relationship go, respect herself and other, focus on the future as well as re-believe in good love.

Seventh Session

Date	June 2 nd , 2012
Technique	SAT Communication Skill ¹⁰⁾
A's status	Stable mood, focus on work and the willingness to know more about communication with others
Objective	Learning communication principles and skills
Result	A felt the touch with her real life and contact skills with her current job. A also build confidence to her life as well as being more independent.

Table 2: A's behavioral traits scores change after SAT counseling

Scales	Standard Scores	Before 3rd	After 4th	After 5th	After 7th
Self-repression	Below 6	10	2	3	3
Interpersonal dependence	Below 4	11	3	5	2
Problem solving	Over 15	7	10	11	15

3.2 Counseling Evaluation

After the 7th session, A had obvious changes. She became effective in her work, re-built her self-esteem and confidence. After two months' post-therapy sessions, A completely walked out the shadow of her lovelorn experience. She maintained peaceful mood and focused

on her work. She could get value from her current job as well as benefits from a good social relationship.

Regarding future intimate relationship, **A** was still worry about some real issues such as her age, the personality of her partner as well as her relationship with her parents. However, **A** understood how to deal with these issues with a peaceful mind. During the phone-call counseling, the counselor emphasized what **A** already achieved and encouraged her to believe in herself, and keep on in the right direction. **A** felt warm and happy.

4. Discussion

Females who are between 25 to 28 years old face critical psychosocial decision-making issues in China. Their careers and marriages are often endangered. The interaction between their future expectations and un-finished businesses in the past are serious stressors that often make them confused. When they experience unexpected incidents such as divorce, they could suffer complete down moods and may not objectively evaluate the real situation. They transfer their inside weaknesses to others and get weaker and insecure. In addition, the social support system may have significant impact on them. **A** was an obvious example.

Nowadays, in China, there is a big competition for stable job¹¹⁾. Most graduate students would choose big cities in order to get more opportunities rather than choose what they genuinely like and can do. For example, majority of the students believe that working in government is the best choice. They decide to look for government job in the city and ignored their own emotion towards their hometown and family. Unfortunately, they often experience a

lonely life in the city resulting in some unexpected psychic challenges, they feel frustrated, anxious and disappointed. They deeply ached for care and understanding from others instead of confront their own wrong decision-making. Thus, lovelorn experiences cause a big crash in their lives. **A** was an obvious case.

The education system in China is examination-oriented rather than focus on the self-development of children and their social ability¹²). However, parents usually make efforts in developing the social-self of their children. Some parents such as **A**'s reflect their unfinished hope in their children. Therefore, some children could not get the correct coping strategy to deal with their own life problems. A few parents even distressed their children by parenting in the improper way, such that the children may feel angry and disgusted with their parents. Eventually, such children hardly trusted others in the adult world and could have low skills to deal with their self-emotions and moods.

In this study, **A** had other-reward lifestyle which had the tendency to lose her "original self". Her lovelorn experience caused a lot of knock-on effect to distress her. SAT Imagery Therapy strategy matched with her problem, especially in helping her recognize her true self and re-build her confidence. Her case was effectively processed. After all the sessions, **A**'s mood significantly leveled out and transferred to "self-reward". Her subsequent actions such as continuous learning, communicating in the proper way as well as making efforts for self-care was attributable to the SAT therapy outcome.

Currently, there is a big dilemma in terms of counseling mechanism in China¹³). The clients focus on whether or not its cost matches its effectiveness. They wish the counselor could solve all of their problems as quickly as possible. They have high expectation of each

counseling session. If the particular session could not bring them the big change, they would feel strong sense of helpless and powerless such that they lose in the counselor. SAT Imagery Therapy seems to resolve this problem. It is a short and result-oriented approach. The client could easily perceive the effect of each session. It quite matches with current Chinese demand situation. Therefore, SAT has a bright prospect of development in China. The therapy has other high-technique methods such as SKP Imagery Technique and the Three-Generations Imagery Technique. These techniques circumspect the traditional counseling methods to sufficiently empower the client for the in-depth self-awareness and resolution of his/her problems.

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Toward SAT Theory of “Emotive Cognitive Behavior Therapy“ That Promotes Changes in Behavior

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Summary

In order to promote changes in behavior that will empower you to solve your problems by yourself, you need to be able to perceive yourself as having a self-image that does not worry about what others around you may say or do, is calm and self-confident, is able to act cheerfully and is amiable to others. By contrast, if you perceive yourself as having a self-image that worries about what others around you may say or do, is emotionally unstable, lacks self-confidence, is gloomy and acts with hostility and skepticism towards others, you will be chronically stressed and unable to change your behavior in a way that will enable you to solve your problems by yourself. Since being cognizant of one's self-image that determines behavior is in a significant way determined by the sum of your past self-image memories, you need to either refrain from relying on your memories or change them. Kishitsu (or temperament) Coaching is based on the SAT method of health counseling. It guides you to understand your inherent temperament, which are based on characteristics such external appearance and expression, behavior and attitude. By understanding your temperament, you will be able to observe yourself and others objectively, and this will enable you to lower your excessively high expectations of yourself and others by developing self-cognition or other-cognition that is “not based on past memories.” In this way, you will be able to expand the possibility of reducing your own stress and improving your relationships with others.

The discovery of microchimerism and the like has revealed that what you believe to be your own experience may in fact be what you understand to be your own experience that reflects the genetic activity or the firing pattern of the nerve cells of others. As a result of the influence of the nerve cell activities of another person's organ or those of the baby in the womb, organ recipients or expected mothers experience changes in the self as well as in their behavioral tendency, preference and attitude. They have difficulty changing their own behaviors, not because they cannot change their self-image, but because they cannot change the image of others they harbor in their own minds. In this connection, it may be possible to develop SAT Therapy into an Emotive Cognitive Behavior Therapy (ECBT) that will voluntarily promote your own problem solving behavior through the action of the frontal cortex by identifying the facial images that substitute for the facial expressions of the chimeras in your body, thereby suppressing the excitability of the amygdala that possesses facial responsive nerve cells, and restoring your own capacity to think, judge and behave adaptively.

Keywords: Structured Association Technique (SAT); self-image; Kishitsu coaching; microchimerism; ECBT (Emotive Cognitive Behavior Therapy)

1. Introduction

How you determine your own behavior depends on how you view yourself, i.e., your self-image. Those who have a negative self-image are unable to act positively. Such individuals will not be able to act cheerfully because they worry so much about what those around them may say or do that they cannot remain calm and are emotionally unstable, lack self-confidence and are gloomy. Moreover, such individuals will not be able to be amiable with others, and instead act with hostility or skepticism toward others. On the other hand, since those who have a positive self-image are not concerned about those around them, they are calm, self-confident and are able to act cheerfully. Such individuals are able to be amiable with others.

At first glance, it may appear that anyone who is able to improve their social reputation or social status and increase their influence over others will be able to promote their own positive behavior. However, since people like that will continue to perceive themselves as having a self-image that worries about what others around them may say or do, is emotionally unstable, lacks self-confidence, is gloomy, is unable to be amiable with others, and acts with hostility and skepticism toward others, they will remain under stress and end up frustrated, chronically ill and accident prone.

The perception of self-image that determines your own behavior is determined by your past self-image memories. This is why you will not be able to change your behavior if you leave your belief about your past self-image unchanged. To be able to change your behavior and solve your problems by yourself, first of all, it is important that you change your belief about your self-image. To see how the seminars and training based on SAT Therapy are helping clients change their self-image assumptions (scripts), you only need to look at the educational effects that SAT Therapy has wrought as described in the Research Committee Report of Academy for Health Counseling which annually appeared in the Journal of Health Counseling.

SAT Therapy is designed to promote changes in behavior that empower you to solve your own problems by yourself without relying on your past self-image memories. This paper will theoretically examine how SAT Therapy may be able to help you overcome assumptions of past self-image memories.

2. Kishitsu Coaching Method Promotes Changes in Behavior to Memory Assumptions

The Kishitsu coaching method¹⁾ forms the overall basis of SAT Therapy, which has been

applied since 2006. Kishitsu coaching guides you to realize your life so that you will be able to make the best of your own Kishitsu(or temperament) by applying your knowledge of genetic temperament to deepen your understanding of the self and that of others, thereby enabling you to engage in self-care behaviors suited to your own genetic temperament. Kishitsu coaching is indeed an attempt to promote your understanding of the self and that of others without reliance on “past memories of the self.” Kishitsu coaching tries to change the level of expectation you have of yourself and others to the level that is closer to the level of expectation that does not place undue pressure on the self or on others. Understanding temperament based on external appearance and facial expression, speech and behavior, and attitude leads to an objective observation of the self and others. After you undergo Kishitsu coaching, you will be able to change your perception of yourself and of others, as well as lower the level of expectation you have of yourself and of others. This in turn will expand the possibility of reducing your own stress and improving your relationships with others.

Of course, since “observation” of the self or of others itself is determined by past memories of the self, it is possible that self-cognition as it really is may be distorted. That being said, it makes a world of difference whether you have a solid knowledge of Kishitsu(or temperament) or not, and if you continue your observation of the self for a long time, you will be able to come to terms with yourself as you are and with others as they are.

In addition, Kishitsu coaching is a coaching method that involves setting a goal of developing a positive self-image that will enable you to avoid worrying about what those around you may say or do and instead express your true feelings while remaining calm and self-confident. After this goal is set, medium goals are established followed by small goals. Kishitsu coaching is structured to guide you to first achieve your small goals then your medium goals and finally your big goal. After undergoing Kishitsu coaching, you will be able to engage in specific and realistic self-care behaviors based on genetic temperament. In the coaching process, you are shown “a list of behavioral goals” and asked to select the ones that first come to your mind. It is Kishitsu coaching that makes it possible to support specific and small goals that are also practical by applying SAT (Structural Association Technique), a therapeutic method designed to promote structured inspiration using “a list of behavioral goals”¹⁾.

3. SAT Imagery Therapy Changes the Image of Others in the Self

When you undergo Kishitsu coaching, you realize that the kishitsu(or temperament) characteristics of the self are not monolithic but rather overlap a variety of kishitsu characteristics that manifest themselves in different situations. Thus it is necessary to identify the different kishitsu characteristics that are manifested in different situations and take advantage of each situation. It is still unclear, however, why a variety of kishitsu characteristics are manifested in

different situations. Given that the research on microchimerism discussed below suggests the presence of a multitude of others within the self, it is natural that a diversity of kisisu characteristics should express themselves.

As the research in microchimerism began to make progress in 1990s, it became clear that, even when one talks about the self, the self is expressed in a diversity of ways. First of all, as is generally known, it is a biological fact that more than 80% of all fertilized eggs of humans die in the female uterus. The cells of the fertilized egg that has died, the cells of the embryo or those of the pre-fetus (4-7 week after fertilization) or those of the fetus may get into other parts of the mother's body, or in case of multiple conceptions, the fetus may fuse with other fetuses. Or, alternatively, if it is you who has become pregnant, the cells of your deceased brother or sister may enter your body via your mother. Consequently, researchers have confirmed that even cells that were not born as individuals may share the inside of your body as chimeric cells with the chimeric cells of at least three generations of blood relatives, namely, parents, siblings and children. J. Lee Nelson refers to this phenomenon as microchimerism.²⁾



Fig 1. Distribution of chimeric cells found in pigmentation photographed with ultraviolet ray³⁾

As the term suggests, microchimerism cells (cells that have genes of other people) get inside our bodies (Figure 1). For example, in the United States, brains of 183 female corpse ranging from 35 to 101 years old at the time of death were studied. A solid 65% of the female brains were found to contain male chimeric cells⁴⁾.

So, in that case, the genetic activities as well as the genetic expression patterns and neural

firing patterns of other people's nerve cells^{Note 1)} will affect both your mind and body without your being aware of them. In other words, it is possible that what you thought to be your own experience is in fact your understanding of the experience that reflects the genetic activities or the firing patterns of other people's nerve cells. And, being influenced by the nerve cell activities of other people's organs or those of the fetus, you may experience the same changes in the self as well as in their behavioral tendency, preference and attitude that organ recipients and pregnant women experience.

In this way, even though people are unique individuals, there are chimeric nerve cell activities of many relatives who possess temperament genes different from one's own. As a result, the nerve cell activities that the self produces and those that others produce are mutually contradictory, and this makes it difficult to maintain one's identity as distinct from that of others. From this, it is clear that living as individuals is inherently difficult. The reason it is difficult to control the self is not that changing the self is difficult but rather that changing the others inside the self is so much harder. If this is the case, then the only recourse is to develop a method for controlling the nerve cell activities of the others inside the self.

In our bodies there are chimeric cells that possess genes that are different from those of the self. As can be seen in Figure 2, this is scientifically demonstrated by the tie-dyeing of the chromosomes.⁵⁾

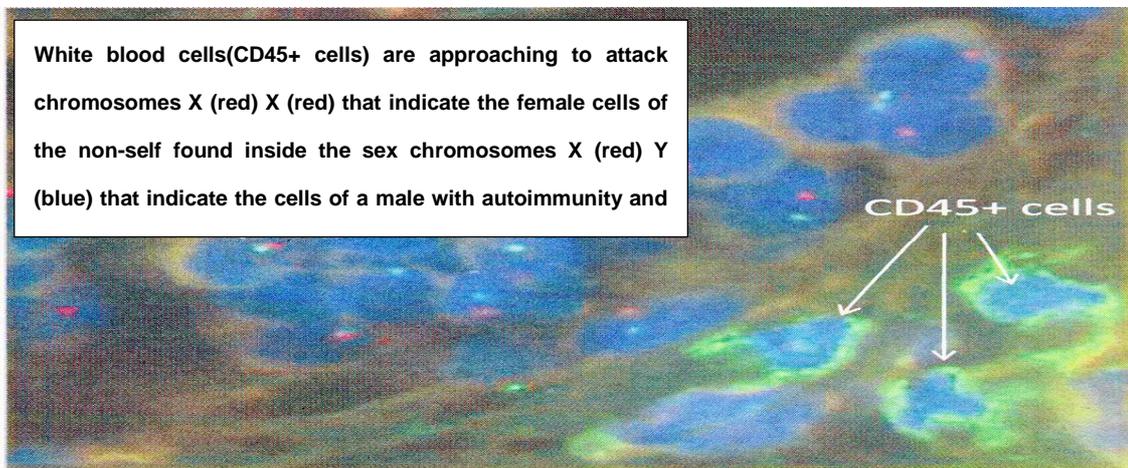


Fig 2. Chimeric cells of female found inside the pancreas of a male Type 1 diabetic⁵⁾

As shown in Figure 2, the existence of chimeric cells inside your body cannot be understood with the left side of the brain (which processes logical thinking), unless you take steps to visualize the chimeric cells by tie-dyeing them with chromosomes. However, you can have another person read the questions in Q1 and Q2 of Table 1 while you keep your eyes closed, or you can continue the SAT image therapy by using an IC recorder. In this way, the right side of the brain (which processes intuitive thinking) should be able to discern the difference between

cases where there are no chimeras and cases where there are. In other words, although the ““Self-Realization Support Therapy Sheet Based on a Simplified Three-Generation Method” presented in Table 1 was not developed until 2013, if it is assumed that “all of the chimeric cells in your body are carried to term and are no longer in your body, as strange as it seems, in nearly all cases, you will have a favorable image of the inside of your mother’s womb. When you are able to form such a favorable image, as is evidenced in your response to Q1, you will, without question, perceive yourself or your parents as having a smiling or peaceful face, and your own personality as “having a cheerful and amiable self-image that does not worry about what others around you may say or do and is calm and self-confident.” On the other hand, if the chimeras are not born and instead remain in your body, in almost all cases, you will worry about what others around you may say or do, be emotionally unstable, lack confidence, be gloomy, not be able to be honest with others, and act with hostility and skepticism toward others. In short, if the self does not carry any chimeric cells in its body, it will have a cheerful and amiable self-image that does not worry about what others may say or do and is calm and self-confident, However, if you are under the influence of the chimeric nerve cell activities, you will intuitively be worried about what others around you may say or do, be emotionally unstable and gloomy, lack self-confidence, be gloomy, and act with hostility and skepticism toward others. This may be because chimeric nerve cell activities are accompanied by fear and other negative emotions. There are a few exceptions, but in most cases, people are intuitively able to form this kind of self-image. Even if the person undergoing therapy is unaware of it, the right hemisphere of the brain knows how the existence or non-existence of chimera affects self-image and images of the parents differently.

As is shown in Table 1, the reason such results are obtained when SAT Therapy uses activities of the right hemisphere of the brain is that patients undergoing SAT Therapy are unable to take notice of concrete thought processes. Instead, they have to respond using only their “inspiration.” Generally speaking, those who do not use the creative activities of their right brain find it hard to have inspirations, and even if many of those who manage to have inspirations, they lack confidence in the validity of their inspirations. Particularly, since those who have difficulty engaging in emotive cognitive behavior usually use their left brain activities but not their right brain activities, they need to train themselves to have inspirations. In some cases, those who are poor at having inspirations may increase their left brain activities by using a physical contact therapy in conjunction with SAT Therapy.

And now, as strange as it seems, when you respond to Q4 and Q5, you will intuitively realize why those of us who have chimeric cells worry about what others around them may say or do, are emotionally unstable, lack self-confidence, are gloomy and develop a self that predisposes them to act with hostility and skepticism toward others? If your original self is able to perceive your personality as “having a cheerful and amiable self-image that does not worry about what

others around them may say or do and is calm and self-confident,” in Q3, ask yourself which type of emotion prevents you from realizing your original self: anxiety: anger or sadness. If, say, your answer is anxiety and you find in the SAT Emotions Table an inner voice that symbolizes that emotion, you will wonder, “How is this going to end?” And if you cry out that inner voice often enough, you will be able to find a physical discomfort with a subjective stress level of about 80% such as the “tightening of the stomach.” You will be able to experience how a multitude of chimeric nerve cells have spread as a result of not only the tightening of the stomach but also the coalescing of different parts of the body such as the shoulders and the back where that inner voice has been crying out over and over again. You will have the same sort of experience even with a chronic source of stress such as a marital problem or a workplace related issue, and the emotions behind that stress will be felt in the same order: first, the inner voice, then, the physical discomfort.

Next, if you close your eyes and feel the physical discomfort, as strange as it seems, you will be intuitively able to see different facial expressions, including a horrified face, an anxious face and a sad face, and know intuitively, with the somatic sensation in the parietal lobe and the multiple sense of fusiform gyrus that recognizes facial expressions, whether those faces belong to a man or a woman⁶⁾ (Figure 3) .

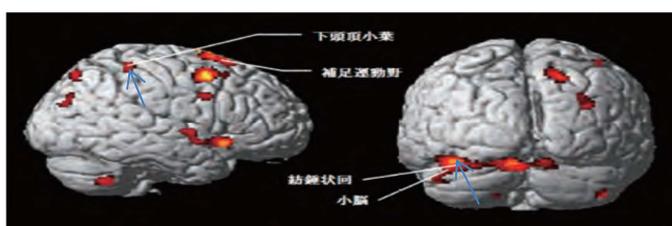


Fig 3. Multiple sensations of inferior parietal lobule, etc. bearing the fusiform gyrus that recognize facial expressions and their somatic sensation⁶⁾

And if you consciously try to feel those facial expressions while closing your eyes, you will intuitively experience negative emotions accompanying such feelings as fear, anxiety, anger and sadness. However, normally, even if you should become conscious of a physical discomfort such as the “tightening of the stomach,” you will not be conscious of those unpleasant facial expressions. That being said, even if you are not conscious of them, it is conceivable that the firing patterns of the nerve cells that create images actually appear in the visual association cortex. Those unpleasant facial expressions are projected onto the faces of those around you, and it is probably these faces that you are reacting to when you experience negative emotions. However, since that would make only external stressors problematic, you will not believe that what is projected onto the faces of those around you are only responses to feelings and images formed inside the self. As you well know, with relationship issues, no matter how close the parties

concerned may come to resolving them through discussions, fundamental solutions are impossible to achieve. This is probably because no one realizes that human relationships are phenomena that occur when chimeric nerve cell activities inside the bodies of the persons concerned project feelings and images onto their faces.

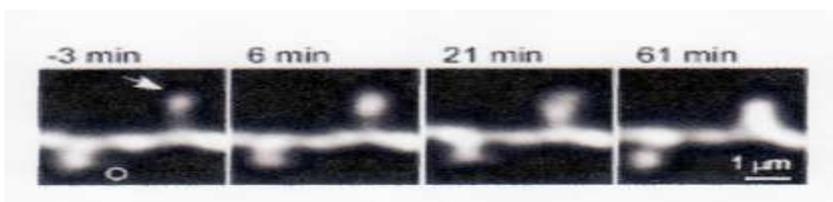


Fig 4. The enlargement of the induced cephalic portion of the spine⁷⁾

*Figure 4 shows the enlargement over time of the cephalic portion of the spine induced by a stimulation in which a number of nerve cells fire simultaneously. It also shows that the enlargement of the cephalic portion is unique to the spines that have been stimulated and does not spread to neighboring spines.

Even when the self is unaware, the emotions and physical discomforts that cause chronic stress may be produced by chimeric nerve cell activities. The dendrite of a single nerve cell has anywhere from several thousands to several tens of thousands of spinal memories that have memories of the kind of chemical substances, light, oscillations and so on that they have accepted to this point (Figure 4). It is said that the phenomenon of memory transfer that organ donors experience has been reported many times. For example, if an organ donor has spinal memories of feelings that make him/her want to be tied to things like alcohol, nicotine noradrenalin, the recipient of that cell will tend to replicate the behavioral characteristic of having a liking for the stimulation that alcohol and tobacco provide.⁸⁾

At smoking cessation clinics, a typical treatment involves injecting nicotine into a patient's skin in place of smoking. As long as nicotine is in the body, strange as it may seem, the desire to smoke disappears. The spinal memories of a neurocyte dendrite that desires nicotine excite the parasympathetic nerve that possesses nicotine receptors, and then crave to replicate the firing pattern that induces relaxation.

As with dependency on nicotine, which has a relaxing effect, spinal memories of chimeric nerve cells are postulated to be dependent on emotive substances (adrenalin, vasopressin, CRF, oxytocin, etc.), and the firing pattern (transmission of change in membrane potential) that may replicates emotions caused by emotive substances (fear, excitement, anger, sadness, affection, etc.). It is believed that the individual chimeric cells that disappeared inside the womb have negative emotions that accompany the disappearance of those cells. And, although it may be hard to believe, research suggests that it is these negative emotions that cause people to have a self-image that predisposes them to worry about what others around them may say or do, be

emotionally unstable, lack confidence, be gloomy and have feelings that make them act with hostility and skepticism toward others.

Table 1. Original Self-Realization Support Sheet Based on a Simplified Three-General Method ©Tsunetsugu Munakata 2012

Q1. Most people are unaware that over 80% of all fertilized eggs die without ever attaching to the uterine wall. However, most cells in the embryo and fetus of a presumably dead fertilized egg are fused together as chimeras – indirectly through the mother and directly with you in the womb. Ignore these biological facts and assume that the lost chimeric relatives were all born. Now, close your eyes and imagine yourself in your mother’s womb, floating in the amniotic fluid with the uterine wall all around you, and enjoying the sensation of floating. Imagine that your chimeric relatives, with a smile and a calm look on their faces, are waiting to welcome you into the world.

Assume that there are no fused chimeras inside your body. What sort of image do you have of the time you were still in your mother’s womb? Does your mother’s womb feel warm and soft? What kind of image do you have of your facial expression and that of your father and mother when you were in your mother’s womb? Also, if you had such an image of your mother’s womb and the facial expressions of your parents, and you were able to see the smiling chimeras, what sort of character would your self-image come to have as you go through childhood, later childhood, adolescence and adulthood? Would it be “emotionally stable, emotionally unstable, worry about what others say or do, not worry about what others say or do, cheerful, gloomy, self-confident, lack self-confidence, amiable, hostile, skeptical, or some other characteristic (_____)?

<ul style="list-style-type: none"> ●Womb image ●Your own facial expression ●Facial Expression of mother’s and father’s,
<ul style="list-style-type: none"> ●Self-image stable or unstable, worry (not worry) about people around you,, cheerful, gloomy, self-confident, lack self-confidence, amiable, hostile, skeptical, other ()

Q2. Again, close your eyes. This time think about your relatives, siblings, children and so on, and assume their lost chimeric relatives have amalgamated to your body. What’s the inside of your mother’s womb like? Does it feel cramped? How about the temperature inside the womb? And is it dark there? What sort of image do you have of your mother? How about your father’s? If you had such an image of your mother’s womb and the facial expressions of your father and mother, what sort of character would your self-image come to have as you go through childhood, later childhood, adolescence and adulthood?

<ul style="list-style-type: none"> ●Womb image ●Your own facial expression ●Facial Expression of mother’s and father’s,
<ul style="list-style-type: none"> ●Self-image stable or unstable, worry (not worry) people around you,, cheerful, gloomy,

self-confident, lack self-confidence, amiable, hostile, skeptical, other ()

Q3. I'm sure the self-image you had before and the self-image. Which self-image have you formed so far whenever a problem arose: the image of the former self (Q1) or that of the latter self (Q2)?

Before, former self ____% latter ____% After, I latter self ____% latter ____%

Q4. By the way, which type of emotion prevents you from realizing your original self: anxiety: anger or sadness (multiple responses permitted)? Which inner voice symbolizes those emotions (see Emotions Table; multiple responses are permitted)? When you close your eyes and cry out with that inner voice, in which part of the body do you feel a sense of discomfort – head, neck, shoulder, back, chest, arm, hand, stomach, hip, leg, etc.(multiple responses permitted)? You can see how the affected parts have coalesced to cause the chimeras to spread, can't you? What would you say is the level of stress caused by the bodily discomfort (0% - 100%)?

Anxiety, anger, sadness, inner voice:

Bodily discomfort: head, neck, shoulder, back, chest, arm, hand, stomach, hip, leg, etc.

(), stress level __%

Q5. Close your eyes and feel these bodily discomforts. When you do this, what kind of person comes to mind? Is it a man or a woman? What kind of facial expression does he or she have: frightened, anxious, angry or sad? What you are seeing is one of your chimeric relatives. Do you feel stress when that chimeric relative usually appears in your subconscious? When you see that face, what kind of feeling or emotion do you have?

●Facial expression ●Male, Female ●Your feeling/emotion when you see the face of the person that comes to mind

Q6. Which warm-color light – golden yellow, yellow, cream, white, green, orange, pink or sky blue – do you think helps heal the chimeric cells in the parts of the body you feel a sense of discomfort (multiple responses permitted)? Select the color(s) that come(s) to mind first. Now form an image of the cell being protected by the light in that part of the discomforting part of the body. What sort of image have you formed for that cell? Is it warm, bright or large? Or does it feel good, reassuring or refreshing (multiple responses permitted)?

Golden yellow, yellow, cream, white, green, orange, pink and sky blue

Images ((Warm, bright, large, soft, good feeling, reassuring, perky feeling, refreshing ()

Q7. When you have that good body sensation, what sort of facial expression does the chimeric cell in that part of the body have – smile, gentle, dependable, forward-looking, pleasant, cheerful, spirited, kind and so on. Is that cell, a man or a woman? Is he/she your sibling? Can you cut him/her off as someone you want nothing to do with? Is he/she a kid? Or is he/her a relative of your parents' or an ancestor? Is he/she a relative on your father's side or on your mother's side? In a flash, tell us how you are related. Look at the Surrogate Facial Image List. What is the

number of the facial image that resembles the chimeric cell under discussion? What is the stress level (0% - 100%) when you look at the facial image of that number? If the stress level does not come down to 0%, repeat Q6 until the final stress level is down to 0%.

Expression (smile, gentle, dependable, forward-looking, pleasant, cheery, spirited, kind •
() M • F, Relationship: sibling, own child, relative on mother's or on father's side, No.
() Stress__%

Q8. Next, select the methods for establishing those surrogate facial images.

1. Display it near you 2. Used it for my standby screen (cell or smart phone) 3. Place it on my PC desktop 4. Tuck it in my notebook 5. Put in a clear file 6. Other ()

Q6 and Q7 of Table 1 are posed to encourage you to change the activities of the chimeric nerve cells in your body. Close your eyes and take in the minus ion (C1⁻) from the cell membrane by using warm color light images (sunny yellow • yellow • cream • white • green • orange • pink • sky blue) at a 500-600nm middle wavelength. Then guide the action potential of the cells first to hyperpolarization then to those cells whose action has been suppressed. The grounds for adopting this counseling method are sought in the mouse experiment conducted by K. Kaneda et al.⁹ Rhodopsin, a protein that receives light, is contained in cell membranes, but even in normal nerve cells, there are relatives of rhodopsin. Rhodopsin was used in the present experiment. Since the animal type halorhodopsin is an extremely unstable protein, gene transfer was carried out on the microbe type halorhodopsin by using a virus unique to nerve cells (AAV2 virus vector) in mice. And by targeting only the synapses of cells, a light operating method that turns on and off automatically has been developed, paving the way for a successful experiment in suppressing neural activities using 500-600nm middle wavelength colors such as yellow and orange.

Next, in Q6 of Table 1, instead of using real light, an imaginative light image is used. However, it is understood that, whether they are based on real experience or only on imaginative experience, the same regions of the brain respond to people's memories. Images you only imagined that you experienced will also remain in the brain as memory images. Here, a relaxed physical image is formed by using the light imaging method to suppress the excitability of nerve cells and eliminate the physical discomfort. By using the somatic sensation of the parietal lobe that reflects that relaxed body image and the multiple sensation of facial recognition of fusiform gyrus that reflects emotions, it is possible to discover the rewarding expressions of your chimeric relatives, smiling, calm, reliable, forward-looking, perky, and so on.

Also, to stabilize these rewarding expressions of your chimeric relatives, you will be guided to select a method for expanding the synoptic area of the spine head involving the promotion of long-term potentiation – a phenomenon where the number of synoptic responses in the

hippocampus is made to increase dramatically, and to continue to increase, by applying a high-frequency electric stimulation to a nerve strand over a short period of time. Toward this end, you will be asked to pick out from the Surrogate Facial Expression List the surrogate facial images that symbolize the rewarding expressions of your chimeric relatives and select those images that will make physical discomforts vanish. Then, you will be guided to display near you the images you have selected, use them in the standby screen of your cell phone or smartphone, put them on your PC desktop, or insert them in your appointment organizer or your clear file. It is believed that the fusiform gyrus, which contains face reaction nerve cells, and the expression of emotion in the amygdala which also contains face reaction nerve cells¹⁰⁾, will be improved by surrogate facial images that have rewarding expressions (Figure 5).



Fig 5. Amygdala Reacts to Expressions of Dislike¹⁰⁾

Assuming that 0% is your answer to the question “When you look at the surrogate images you selected in Q7, to what percent does your physical discomfort decrease from the 80% you indicated earlier?” it can be said that you are no longer controlled by the neural activities of the chimeras. Consequently, you are now able to be true to your real self. When the stress level accompanying your physical discomfort is high, as the illustration on the left side of Figure 6 shows, the frontal cortex of your brain is hijacked by the amygdala, thereby causing you to engage in maladjusted thinking, judgment and behavior. Consequently, regardless what behavior goals you may set for yourself, you are unable to do what is necessary to reach those goals. To stop the amygdala from hijacking the frontal cortex, you need to lower your stress level (ideally to 0%, but at least to 30%) by replacing the negative facial expressions you see with surrogate facial images.

Treatment provided in a recently developed cognitive behavioral therapy is counted under the National Insurance point system. In this treatment, the depressive and unstable feelings the patient has are mitigated by “helping the patient behave in ways that will lead to a resolution of his/her problems by promoting a positive mindset and way of thinking (cognition) and by changing his/her attitude that inhibits appropriate behavior.” This method of treatment aims to mitigate your feeling of depression and anxiety, and encourage you to engage in adaptive

behavior by, for example, guiding you to change your attitude from “this cup is half empty” to “this cup is half full.” In other words, the treatment helps patients change how they feel and act by helping them to change their attitude from negative to positive thinking using the frontal cortex of their brains. As such, it is precisely a treatment that advances the condition described on the left side of Figure 6.

However, the effectiveness of cognitive behavioral therapy is difficult to sustain for those who are emotionally unstable and prone to emotional expressions. This is because, as demonstrated by Joseph LeDoux,¹¹⁾ the world’s leading expert in amygdala research, a stimulus does not always pass through the frontal cortex via the thalamus. There is also a route through which a stimulus is transmitted directly to the amygdala. Since the amygdala is hijacked in individuals who are emotionally unstable and prone to emotional expressions, they are often unable to control their emotions solely with their cognitive skills.

As the Emotive Cognitive Behavioral Therapy described in Table 2 shows, the method employed in SAT Therapy first changes “the way you feel” and then “the way you think” and “the way you behave” by suppressing the excitability of the amygdala using surrogate facial images. By changing “the way you feel,” SAT Therapy helps you to restore your capacity to think, judge and behave adaptively, thereby enabling you to set problem-solving behavioral goals you will actually be able to realize.

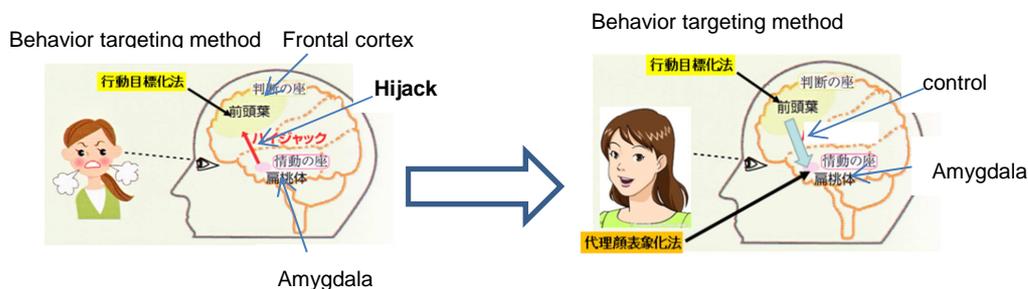


Fig 6. Frontal cortex hijacked by the excitability of the amygdala and the brain in which the latter has been suppressed as well as the activities of the frontal cortex strengthened with surrogate images

Table 2. Emotive Cognitive Behavioral Therapy Sheet Based on Surrogate Facial Images © Tsunetsugu Munakata 2012

Q1 Select from the SAT Emotions Table the emotions closest to the source of your stress (anxiety, anger, sadness) and the inner voice you hear, and write down your selections below. When you cry out that inner voice several times or when you close your eyes and recall the worst scene that comes to mind regarding the stressor you chose, in which part of the body do you feel the stress – head, neck, shoulder, back, chest, arm, hand, stomach, hip, leg, etc.? What would

you say is the level of stress caused by the bodily discomfort (0% - 100%)?

Emotion behind the stress:: anxiety, anger, sadness

Inner voice of that emotion :

head, neck, shoulder, back, chest, arm, hand, stomach, hip, leg, etc.(), stress level __%

Q2 Of the surrogate images you discovered with the three-generation method, what is the number of the surrogate image that helps lower the level of physical stress when you see it in your mind. Answer with what comes to mind first (multiple answers permitted).

The number of the surrogate images selected:

Q3 Now, look at the surrogate images that came to your mind first (multiple responses permitted). What happens to the change in the level of physical stress you felt earlier? Or by what percentage has your stress level actually fallen. Select those images that lowered your stress level to 30% or below. (If the stress level does not dip to 30% or lower, continue selecting the images with the three-general method until the percentage falls to 30% or lower.)

Altered physical change Stress level __% (at least to 30% or lower, preferably to 0%)

Q4 How do you feel about the three undesirable stressors indicated in Q 1 ? And do you find yourself thinking about them?

The changed way you feel or think Way you feel : Way you think :

Q5 How are you going to behave in the future toward the stressors you selected earlier. Answer with what comes to your mind first.

Note 1) This refers to the fact that differences in the genetic expressions of individual cells are maintained steadily even when the cells divide. Among genetic expressions, there are genes that are modified after birth, and those are referred to as cell memories.

Note 2) This refers to the fact that, regardless whether they are subject to external stimulation or not, nerve cells manifest synchronous firing patterns.

Note 3) Multiple sensation refers to a sensory mechanism whereby information concerning the five senses – vision (when you see a body), hearing (when you hear a voice), touch (the sensation transmitted via the skin), smell (odor you sense) and taste (when you taste food, etc.) – are synchronically integrated along with the somatic sensation that comes from your joints and muscles.

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