

Forgiveness as Anticipatory Creativeness Implemented Way Informational Analysis by Synthesis Procedure

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Abstract

The aim of research is – to analyze decision making process under conflict solving situation by using modeling as anticipatory creative way informational analysis by synthesis procedure, paying attention to the process of forgiveness as the most creative decision. Decision making process is informational creative procedure, which is made by neocortex using creative way of analysis by Synthesis or using more general understanding of closed-loop coding-decoding method. In this way we can analyze all ways of decisions as codes of different strategies. In conflict situation neocortex is creating virtual plans for implementation of every possible strategy and according to the results of modeling is choosing one strategy and appropriate plan of tactics of behavior. This is model-based anticipation.

Keywords: Forgiveness, Decision making, Anticipatory systems.

1 Introduction

The aim of research is – to analyze decision-making process of human beings and mammals under conflict solving situation by using modeling as anticipatory creative way informational analysis by synthesis procedure, paying attention to the process of forgiveness as the most creative decision.

The objectives of research are the following:

1. To analyze Conflict Solving strategies.
2. To describe Creative Decision making process.
3. To define Forgiveness – as a strategy of prevention of conflicts.
4. To analyze data of research on Forgiveness as conflict solving strategy.
5. To create model of Forgiveness as Anticipatory Creativeness Implemented way Informational Analysis by Synthesis Procedure, based on the following items:
 - 5.1. Forgiveness Anticipates powerful therapeutic strategy;
 - 5.2. Forgiveness predicts prevention of cancer and other illness;
 - 5.3. Forgiveness Anticipates Physiological changes during the process of forgiveness as indexes of good health.

2 Conflict Solving Strategies

It is possible to solve conflicts using at least three different analysis ways of decisions as codes of different strategies: aggressiveness, indifference, forgiveness.

In this research we will pay more attention to the third strategy of conflict solving situation – to the process of forgiveness, which is quite rarely analyzed in scientific literature. We would like to interpret this process of forgiveness as alternative and opposite way to the more general natural biological behavior which some authors calls - selfish gene (Dawson, cit. Beresnevičienė, 2004). From the point of view of biology and organized systems psychological process of forgiveness we can understand as eco-biological interaction between altruistic, cooperative or mutuality behavior. While aggressive behavior and indifference we can identify with concurentive and predator-prey eco-biological relations among individuals and groups.

Conflict situation arise when intersection of interests, wishes and aspirations take place. Which strategy of conflict solving will be taken depends on evaluation of enemy's strength, potency and prognosis of his possibilities to win. If decision is made, that enemy is stronger – it means that it needs to surrender or to run, if weaker – to attack him. This process of evaluation takes place from some seconds to several minutes and during this process every individual expose his advantages: animals demonstrate their natural weapons: human beings demonstrate their body language and use verbal information. These are standard decisions. When competition started more intensive and more complicated appeared the need to look for more creative methods of decision-making process (see Fig. 1).

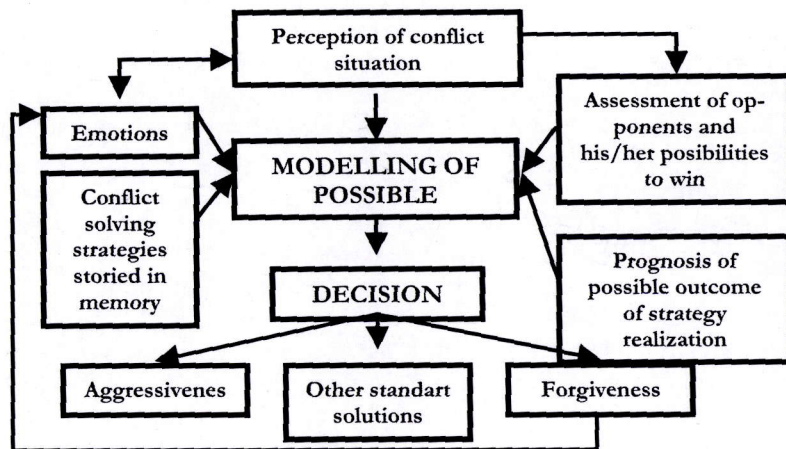


Figure 1. Decision making process.

3 Creative Decision Making Process

Creative solution, according to Horowitz (2004) is solution that completely solves the problem, has no negative consequences, requires little material and financial expenses and is very original: only few people are capable to achieve it.

As example of creative solution we offer the story of 5 years old boy: 'on the way home from school today, one of the kids on the bus was bothering me. He kept pulling at my hands to annoy me. I thought about what to do. I didn't want to fight back, so I looked for an inventive solution. And then an idea just popped into my mind! I spat on my hand. The other kid was so disgusted that he stopped bothering me immediately!'

According to theory of Innovation thinking defines creative solution as solution when conflict does not exist any more. Creative Decision is prevention of conflicts which leads to cooperation and mutual understanding of each other and opens the possibilities to survive to all and to keep balance and harmony in the whole psychological and social space.

Creative Decision is made when opponent is understood in more empathically way and decision maker forgives him his aggressive or indifferent behavior taking into account that opponent is not able to understand that eco-biological and social system is the whole and momentic competitiveness or "win" means permanent loss for the whole eco-biological and psychological system of the world. Creative Decision means forgiveness, which leads to cooperation and mutual understanding of each other and opens the possibilities to survive to all and to keep balance and harmony in the whole psychological and social space.

Creative conflict solving way is Decision to forgive and to cooperate and this Decision is Prognostic Decision to renew balance. Creative decision means to change consciousness and unconsciousness attitudes (codes). If somebody was coded as dangerous, aggressive enemy now is recoded as friendly, understandable partner. As describe research data relationships based on fear and distrust, in the process of forgiveness becomes empathically and even loving relationships.

4 Forgiveness – a Strategy of Prevention of Conflicts

As the data of research show forgiveness helps to prevent conflicts, but there are many cultural differences (Azar & Mullet, 2002).

The different practice of forgiveness was used in different cultures. Indigenous Native Hawaiian process called: Ho'oponopono' has been used to restore interpersonal relationships in Hawaii for several centuries. Ho'oponopono' is noted as an intervention to regain the homeostatic balance in families, groups, communities as well as individual. This process contains following categories: family, mediation, forgiveness and reconciliation. The research (Andres, 2002) notes the importance of the haku's mental, emotional and spiritual preparation and appropriateness are important aspects of process. Also Native Hawaiian spiritual and cultural values most often noted are pono (balance), ohana (family) and lokahi (unity).

Mackler (2002) discusses the role of neighbors and the role they play in people's

lives. The author believes that neighbors teach us about ourselves. The good ones lead to love and caring; the less than good teach us about how hateful and enraged we are or can become. Through soul searching we can learn to calm ourselves and to live a more fulfilling and peaceful existence despite an ugly and/or evil neighbor. Patience and tolerance are the recommended antidotes, but they are not easily available, nor do we want them. Ultimately the highest state here is forgiveness.

5 Forgiveness as Conflict Solving Strategy

Park and Enright (1997) investigate the development of forgiveness in the context of adolescent friendship conflict in Korea.

Bottom, Gibson, Daniels, Murnighan (2002) investigated the effects of explanations and forgiveness on the restoration of mutual cooperation. The results confirm that rebuilding cooperation is feasible. Apologies and simple explanations can be effective to a degree, though substantive amends have significantly more positive effects than explanations alone. In contrast to prior findings on interact final justice; acknowledgements were more effective than denials in repairing shot interactions. This research demonstrates that, once breached, cooperation can be reestablished and that actions as well as explanations and apologies can augment the process in important and sometimes subtle ways.

Forgiveness helps for reconciliation between fathers and sons. States that the father-son relationship holds archetypal power and that it is a powerful relationship containing inherent seeds of conflict. Qualitative methods of multiple case studies and grounded theory were used to investigate reconciliation between fathers and sons (Katz, 2002). A 45-item, 5-point Likert-type scale instrument was developed to assess the impact of the interview process on the participants. Through qualitative analyses of interviews from 6 pairs of fathers and adult sons, 8 qualities of a reconciled relationship and 12 factors in the reconciliation process emerged. The process of reconciliation had impact on these men's overall well being and had great personal and transpersonal relevance to the 12 men involved in this study.

6 The Model of Forgiveness as Anticipatory Creativeness Implemented Way Informational Analysis by Synthesis Procedure

6.1 What is Forgiveness?

There are many definitions of the process of forgiveness. To forgive doesn't mean to excuse of the offender. It means to free the offender and the victim from each other. To forgive means to understand the problems of offender and to understand the victim's psychological problems. It means to understand why this happened? What is my mistake and to learn this mistake by forgiving to myself to the other person and by creating new and better relationships among each other.

Some data (Smith, 2002, Akhar, 2002) of research showed that it is difficult to forgive using different psychoanalytical methods.

If we want to forgive others, we need to forgive ourselves. The best way to forgive to other is to learn to forgive to you. Akhar (2002) found that an individual who fails to make certain intrapsychic achievements might be vulnerable to psychopathological development as is evident in those who cannot forgive or forgive too readily, constantly, or show an imbalance between their capacities to forgive themselves and to forgive others.

The importance of self-forgiveness also expressed Zechmeister and Romero (2002). They found that victims portrayed the offense as open, continuing and offenders understand the offense as closed. In the process of forgiveness it is important stage of empathy for the offender and this is associated with victims' forgiveness. In contrast, offenders' empathy for victims was associated with less self-forgiveness. So self-forgiveness it is the most important stage of the process of forgiveness.

6.2 Forgiveness – as Powerful Therapeutic Strategy

After the two decades of research, forgiveness is now emerging as a legitimately recognized psychological intervention (Droll D, 1984; Hope, 1987; Hebl & Enright, 1993; Enright & North, 1998; Enright & Fitzgibbons, 2000; Gordon, Baucom & Snyder 2000; Hanson, 1997; McCullough, 2000; McCullough et al, 2001; Beresneviene, 2004; etc.).

The newest direction in social work, psychotherapy, especially in family therapy and in psychological medicine and work psychology pays great attention to this psychological process of forgiveness. Forgiveness is used as a therapeutic option in addressing individual, relational and marital distress (Murray, Vilanova, U., Vilanova, P. A., 2002).

As data of research showed, forgiveness is a powerful therapeutic intervention, which frees people from anger and guilt; helps to forget the painful experience of the past; frees persons from subtle control of individuals and events from the past; restores relationships and client's emotional and physical health; decreases anger and it will be directed in later loving relationships. Therapy of forgiveness improves emotional intelligence, lowers anxiety (Beresneviene, 2004).

6.2.1. Forgiveness as Prevention of Cancer

Research on Medicine psychology showed that Forgiveness it is possible to analyze as a factor of prevention of cancer. As the data show, repressed anger blocks immune system and forgiveness release sorrow through tears and stimulates the immune system. Receiving forgiveness intervention cancer patients increased their quality of life, appeared the reduction of anger and appeared hope; forgiveness is recommended for Type C (cancer-prone) personalities.

6.2.2. Physiological Changes During the Process of Forgiveness

What physiological changes occur in system of human beings during process of forgiveness reveals some data of research of Witvliet, Charlotte-vanOyen, Ludwig et al,

(2001). They found that forgiving thoughts prompted greater perceived control and lower physiological stress responses; unforgiving thoughts prompted more aversive emotions; unforgiving thoughts prompted scientifically higher corrugators' (brow) electromyogram (EMG), skin conductance, heart rate, blood pressure changes from baseline.

Forgiveness works as a biological factor: which lowers hematocrit levels, lowers white blood cell counts, higher TxPA levels, higher T-helper/cytotoxic cell ratios and indices good health.

6.3 Forgiveness as Anticipatory Creativeness Implemented Way Informational Analysis by Synthesis Procedure

In conflict situation neocortex is creating virtual plans for implementation of every possible strategy and according to the results of modeling is choosing one of three strategies and appropriate plan of tactics of behavior. This is model-based anticipation.

Decision making process it is possible to analyze as informational creative procedure, which is made by human beings and mammals neocortex using creative way of analysis by Synthesis or using more general understanding of closed-loop coding-decoding method (Bobrova, Beresnevičienė, Kirvelis, 2005). In this way we can analyze all ways of decisions as codes of different strategies. When we code any subject as dangerous enemy, after the Act of forgiveness we can decode the same subject as a friend and the situation as safe.

The analysis or synthesis methods are widely used in scientific researches and technical decisions most cases separately. But some theories cognitive psychology, neuropsychological, neurocybernetics and some technological decisions of versatile problems prove that the information systems in which procedures of the analysis and synthesis are functionally closed-loop interconnected are working much more effectively. That's systems are working by a principle of the analysis by synthesis (A-by-S).

A full dynamical structure of coding-decoding in visual analyzer represents a looped informational system, because an actual image is compared with reconstructed one. Closure of such system is completed similar as closed-loop receptors – effectors functional organization in biosystems that corresponds to general coding-decoding or reflective SS and RS structure. That gives functional sense of information in visual recognition system (see Fig. 2).

We propose that the neuronal structure implementing the quasi-holographic analysis-by-synthesis ought to possess at least three layers: (i) the sensory layer (SS) containing the projection of the retinal image; (ii) quasi-holographic memory layer (carrier of the transformed image Q^{-1} or memory trace); (iii) reconstruction layer (RS), onto which the back-transformed image is mapped; and this reconstructed image possesses the same topology as an actual image in layer SS. The comparison model collates actual image on SS and mental image on RS. Thus mental imaging is transferring of reconstructed images from RS to SS. The synthesis may be accomplished by dedicated predictive

structures driven by arbitrary motivations or preliminary expectations of events in environment. Note, that the system described above resembles the closed-loop coding-decoding; similar as classic non-loop communication system of the Shannon information theory, whereby analysis/decomposition Q^{-1} is equivalent to the encoding step, and the reconstruction/synthesis Q^{+1} corresponds to decoding.

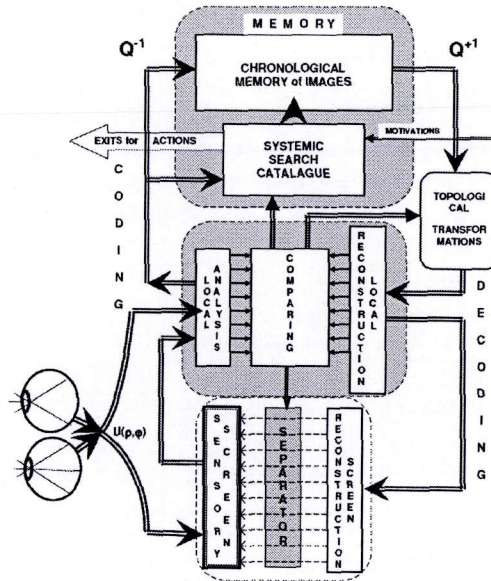


Figure 2. Functional structure of the brain perceptual processes (visual neocortex) as analysis by synthesis (A-by-S) or informational imitator closed-loop coding-decoding (CL-CD) system.

The main criticism of the sensory screen idea is that this kind of screen (SS or RS) implies the existence of a homunculus watching the screen. The A-by-S functional structure addresses this critique by replacing the homunculus with comparison module where SS "watches" RS. This interpretation is analogous to the classical Shannon's channel with memory, in which encoder and decoder are connected by feedback. It is thought that such a channel in visual analyzer ought to work on the quasi-holographic principle. Q^{-1} is the quasi-holographic dispersion of the image by visual receptive fields based on a certain orthogonal (encoding) basis in structure that fixes engrams. Q^{+1} is the inverse quasi-holographic transformation which restore (decode) image from engram in visual memory carrier. These quasi-holographic transformations are consistent with and may mediate the associative principles. The associative information processing and memory organization may be instrumental for predicted search and retrieval in large information corpus. Since the proposed visual analyzer scheme uses image prediction and verifies or falsifies predicted images with those of the actual scenes, it could also be called the anticipatory image analyzer.

The purpose of research is to show that essence of biological, psychological, social and some technical systems, that advisable named as organized or cybernetic systems, the functional organization of these systems is complex information-control procedures and they are implemented on the principle A-by-S. Organized system includes two functionally different subsystems: the controlling one (a controller) that processes the information and the controlled one that carries out transformations of matter and energy, *i.e.* technologies in broad view not only material technical, but and social control, educational for goal-oriented actions. In these systems dominate information receptions, information transferring, information storing, information augmenting, information processing, information comparing, information segmenting and analyzing, information synthesis, informational control and etc., created on the basis of a principle closed-loop coding-decoding. Matter and energy transformations play a secondary role only as technological means for realization of information procedures.

The associative information processing and memory organization may be instrumental for predicted search and retrieval in large information areas. Since the proposed visual analyzer uses image prediction, and verifies and falsifies predicted images with those of the actual scenes, it could also be called the anticipatory image analyzer.

In conflict situation neocortex is creating virtual plans for implementation of every possible strategy and according to the results of modeling is choosing one of three strategies and appropriate plan of tactics of behavior. This is model-based anticipation.

6.4 Teaching Forgiveness

As data of research show, it is not easy to forgive, so it is possible to use different teaching models of forgiveness. There are different ways and process models how to teach forgiveness. Enright and the Human Development Study Group (1996) used 12 stages of process of forgiveness.

Enright and Fitzgibbons (2001) used 20-step forgiveness process model divided to four phases: uncovering, decision, work and deepening.

Murray, U. Vilanova and P. A. Vilanova (2002) used 4-station process: insight, understanding, providing an opportunity for compensation and the act of forgiving. This model was used for promoting healing for adolescence. These stations helped client gain insight and understand the intergenerational pain, provide an opportunity for compensation and empower client to act on the forgiveness.

Beresnevicene (2004) used 4 stages process model of forgiveness: 1. The act of Forgiveness to Somebody; 2. The process of Apology to Somebody; 3. Apology of my own body for the hurt I did keeping negative emotions; 4. Self- Forgiveness process.

Curtis and Glass (2002) investigates students' confidence in integrating spiritually in counseling. Specific interventions taught include the focusing method, a forgiveness model, the prayer wheel and meditation.

7 Conclusions

1. So it is possible to conclude that forgiveness works as Anticipatory Creativeness implemented way Informational Analysis by Synthesis procedure and helps human beings and mammals to survive in changing eco-biological system and to implement ecological and psychological balance and harmony in the world.

2. Analysis of Conflict Solving strategies described that it is possible to solve conflicts using least three different ways: by aggressive behavior, indifference to enemy or forgiveness. Forgiveness is an alternative and opposite way to the more general natural biological behavior which some authors calls - selfish gene.

3. Analysis of Creative Decision making process revealed that creative conflict solving strategy is when conflicts do not exist any more.

4. Analysis of data of research revealed that it is possible to define Forgiveness – as Creative Decision making process, which leads to prevention of conflicts.

5. There is presented model of Forgiveness as Anticipatory Creativeness Implemented way Informational Analysis by Synthesis Procedure. In this way we can analyze all ways of decisions as codes of different strategies. When we code any subject as dangerous enemy, after the Act of forgiveness we can decode the same subject as a friend and the situation as safe.

6. So the model presents Forgiveness as Creative Anticipatory strategy, which predicts prevention of cancer and other illness, leads to cooperation and mutual understanding of each other and Anticipates the possibilities to survive to all and to keep balance and harmony in the whole psychological and social space.

7. As data of research show, it is not easy to forgive, so it is possible to use different teaching models of forgiveness.

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