

# Structure and Distortions of the Activity Autoregulation: a Growing Edge of the Cultural-Historical Activity Theory

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The problem setting of the paper stems from the idea of shifts in research contexts and explanatory emphases in the Cultural-Historical Activity Theory (CHAT) through the history of its development, specifically, from putting the concepts of mediation and self-regulation (autoregulation) to the foreground in the 1980s. The immediate object of the analysis are the elements of activity autoregulation structure and varieties of its possible distortions. In line with the distinction of five elements of any contour of autoregulation as the mechanism of cyclic action correction basing on the comparison of the feedback on the current results with the preset goal criterion, ten arts of autoregulation distortions are differentiated and described: 1A. Lack of goal criteria or lacking selectivity as regards such criteria; 1B. Excessive rigidity of the goal criteria; 2A. Difficulties in the transition from decision to implementation; 2B. Uncontrolled, uncorrectable acting; 3A. Lacking sensitivity to the feedback; 3B. Anxious hypersensitivity to the feedback. 4A. Lack of readiness to detect mistakes and to correct erroneous actions; 4B. Failed comparison of the feedback with goal criteria, spontaneous responding; 5A. Denying mistakes and refusal of their correction; 5B. Painful responding to errors and failures.

**Keywords:** Cultural-Historical Activity Theory (CHAT), regulation, autoregulation, functional paradigm, goal, action, feedback, distortion, correction.

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## Структура и нарушения саморегуляции деятельности: точка роста культурно-исторической деятельностной психологии

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Проблематика статьи вытекает из представлений о сдвигах в исследовательских контекстах и объяснительных акцентах в культурно-исторической деятельностной психологии (КИДП) на протяжении истории ее развития, в частности, из выдвигания на передний план в 1980-е гг. понятий «опосредствование» и «саморегуляция». Непосредственным предметом анализа выступают элементы структуры саморегуляции деятельности и разновидности возможных ее нарушений. В соответствии с пятью элементами любого контура саморегуляции как механизма циклической коррекции действия на основании сличения обратной связи о текущих результатах с заданным целевым критерием выделены и описаны десять разновидностей нарушений саморегуляции: 1А. Отсутствие целевых критериев или дефицит избирательности по отношению к ним; 1Б. Излишняя жесткость

целевых критериев; 2А. Затруднения при переходе от решения к действию; 2Б. Неуправляемое, некорректируемое действие; 3А. Нечувствительность к обратной связи; 3Б. Тревожная сверхчувствительность к обратной связи. 4А. Неготовность замечать ошибки и исправлять ошибочные действия; 4Б. Несоотнесение обратной связи с целевыми критериями, спонтанное реагирование; 5А. Отрицание ошибок и отказ от коррекции; 5Б. Болезненное реагирование на ошибки и неудачи.

**Ключевые слова:** культурно-историческая деятельностная психология (КИДП), регуляция, саморегуляция, функциональная парадигма, цель, действие, обратная связь, отклонение, коррекция.

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## Introduction

Any scientific theory, while retaining its basic conceptual apparatus for decades, at the same time undergoes changes over time. The most noticeable expression of these changes is the shift of the center of gravity of theoretical and experimental research from some problems and concepts to others. In our previous publication [22], devoted to a review of the current state and status of cultural-historical activity theory, or CHAT<sup>1</sup>, we tried to substantiate the key place in it at the present stage of the concepts of regulation and autoregulation. These concepts do not simply describe specific psychological processes, but rather set a general explanatory model, which we labelled “functional paradigm” (see also [8]; [10]). CHAT is one of the approaches that have embodied the functional paradigm in recent decades.

This thesis itself is not new. Back in 1981, B.V. Zeigarnik’s paper “Mediation and self-regulation in norm and pathology” was published, in which she noted the key importance of these two concepts for the theory of activity at this stage ([3]; see also [4]). At the birth of the CHAT, in the late 1920s-early 1930s, L.S. Vygotsky emphasized the relationship between the individual psyche and the culture, on issues of social and genetic psychology. At the next stage, with the emergence of activity theory approach, in the 1930–50s, the attention of researchers was focused mainly on the relation between activity and consciousness in genetic and functional aspects, on the issues of the emergence of consciousness and mental reality in general in the process of activity, and on the problems of child and educational psychology. In the 1950s-70s, the emphasis shifted to the relations between activity, action, and operation, to the issues of the structure and functional genesis of activity, mechanisms of its implementation, to the problems of

general and engineering psychology, cognitive and executive processes. Since the late 1970s, a new shift of emphasis has been noticeable, the one to the relation between personality and activity, to the issues of regulation and self-regulation of activity and its ontogenetic development, to the problems of personality psychology, including pathopsychology. This shift in emphasis resonated with similar shifts in foreign psychology, where the issues of interaction between personality and motivation, cognitive and attributive processes, and the context of the integral personality came into focus [18; 23].

This new problematic was reflected in a number of research directions, in which activity was considered just in the aspect of its regulatory mechanisms. First of all, we can name studies of volitional regulation (V.A. Ivannikov), regulation of thought activity and goal formation (O.K. Tikhomirov, I.A. Vasiliev, etc.), as well as motivational and meaning-based regulation and meaning sphere of personality (A.G. Asmolov, B.S. Bratus, F.E. Vasilyuk, D.A. Leontiev, E.E. Nasinovskaya, V.V. Stolin, E.V. Subbotsky), studies in the field of engineering psychology (M.A. Kotik). Over the past time the importance of this problematic is not decreasing, on the contrary, it is growing. Models of regulation and self-regulation in the context of cognitive processes (T.V. Kornilova), personality in the broadest sense of the word (V.A. Petrovsky), clinical problems (J.M. Glozman, E.T. Sokolova, A.S. Tkhostov, E.I. Rasskazova), developmental psychology (E.O. Smirnova, K.N. Polivanova, etc.) are being developed.

The aim of this paper is to propose, based on the methodological framework of the functional paradigm and the explanatory concepts of regulation and autoregulation, a working scheme of autoregulation of activity and its distortions, which would help to identify specific targets that allow us to set the task of complex assess-

<sup>1</sup> We consider the concept of Cultural-Historical Activity Theory, CHAT, which has taken root in foreign works over the last two or three decades, to be appropriate and adequate.

ment of the preservation and balance of the functioning of autoregulatory processes, described by us in terms of personality potential [7].

### **The meaning of autoregulation. Functional paradigm**

Let us briefly summarize the key aspects of understanding the autoregulation of activity that make this concept so important for CHAT (for more details see [7]; [8]; [21]; [22]).

The concepts of regulation and autoregulation have occupied a key place in cybernetics since the 1940s; the first attempt of their application in psychology was the neo-behaviorist T-O-T-E model of J. Miller, E. Galanter, and K. Pribram [15]. In our country, these ideas had been approached even earlier by N.A. Bernstein and P.K. Anokhin, whose works gave impetus to the corresponding approaches in psychology [see 9].

The concept of **regulation** means a scheme of process control in which at least five obligatory elements are distinguished. 1. The process itself, which is regulated. 2. The target criteria of regulation (to which the process parameters must conform). 3. Feedback mechanism – obtaining real-time information about the state and dynamics of the process. 4. Comparison unit, which compares the received feedback with the specified criterion. 5. Corrective action, which is applied to the process in order to bring it closer to the desired state.

We speak about regulation when the mechanisms of comparison and control action are outside the controlled process itself, for example, carried out by the operator. If we introduce into this process a program that will automatically carry out the control action at certain deviations of the controlled process from the target criteria, then it is correct to speak about autoregulation. Human activity as an object of control combines mechanisms of both external regulation and autoregulation, and ontogenetic development implies a gradual transition from the former to the latter. While we are small, other people exert a controlling influence on us. As we grow up, we gradually acquire the ability to autoregulate our behavior according to criteria we deem meaningful (although many people do not become autoregulated until old age). Phylogenetic development also shows similar patterns with respect to individual body systems: as evolution proceeds, autonomy and autoregulation of individual subsystems increases, including specialized subsystems of the brain [2]. In social evolution, similar tendencies of growth of autonomy and autoregulation of separate social subsystems and decentralisation of management are also observed. Civil society is an autoregulating society, which develops autoregulation mechanisms even at the level of a separate neighbourhood, local

community of neighbours or professional association and implements control actions itself, rather than waiting for them from another level of social hierarchy.

The ideas of autoregulation are key ones to the system of views that can be called the functional paradigm in the life sciences. This paradigm assumes that an individual's interaction with the world is primary in relation to stable regulatory structures that are formed precisely in this interaction, rather than preceding it. The functional paradigm opposes views of behavior as being determined by traits, drives or external stimuli. It was developed in the middle of the last century in such view systems as (a) systemic-cybernetic models of self-regulation and self-organisation, including the physiology of activity, (b) existential philosophy and psychology, and (c) cultural-historical activity theory in psychology. The most succinct formulations of the functional paradigm are the formulas: "Existence precedes essence" (J.-P. Sartre), "A task gives birth to an organ" (N.A. Bernshtein), "Activity produces consciousness" (A.N. Leontiev). One can talk about the merging of these approaches into a holistic paradigm already in our century.

In the context of psychological science, we consider an integral human activity a regulated or autoregulated process. Activity is ideal and/or practical interaction of an individual with the world, mediated by elements of socio-cultural experience of generations, fixed in sign-symbolic, instrumental and imagery forms. Some links of this process can be delegated to other people or artificial devices.

### **The functional structure of self-regulation of activity and its distortions in everyday life: towards the structure of personality potential**

Autoregulation is a complex mechanism, and, like all complex mechanisms, it can "break down" in different links. R. Baumeister et al. identified two most common types of self-regulation disorders [19]. Underregulation occurs when some mechanisms do not work, and misregulation occurs when control over actions is based on false assumptions about what is good and what is bad.

Let's consider what distortions are possible in different links of autoregulation, and in what symptoms they manifest themselves. Let us recall the main links: 1. Goal (in the broad sense), or target criterion of the desired; 2. Effector – the mechanism of transition from goal to action; 3. Feedback receptor; 4. Comparison mechanism; 5. Mechanism of action correction.

A goal in the broadest sense is an ideal to which a system should aspire. Goals provide direction, perspective and can change. At the same time, goals can and should be flexible enough. It is dangerous to have and dangerous to realize rigid unambiguous goals. Psychology describes

the “Martin Eden syndrome” [16], named after the hero of Jack London’s novel of the same name. Martin Eden was a sailor who descended to land and began to write. He dreamed of becoming a famous writer, dreamed of getting rich, becoming successful, winning a stunning woman. And he achieved it all. The novel ends in suicide. Why live on if his whole life was guided by rigid goals, and when all of them are achieved, what now? Martin Eden syndrome warns against too rigid goals.

An oriental wisdom says: “If you want something very badly, you will get it. And nothing else”. Goals focus us on what we want, and all our activity is directed towards achieving that goal if we have enough resources. But being focused on moving towards the goal, we don’t see anything away from it. We reach our goal, but who knows what we missed on the way to it. It’s important to have not so much specific goals, but a flexible goal-setting ability – the ability to set goals and change and abandon goals when necessary. The inability to abandon goals makes us subject to circumstances. We must own our goals, not belong to them. Nevertheless, a person with a goal is much less susceptible to any suggestion or manipulation than a person who does not know or understand what he wants and who is easily indoctrinated by someone else’s goal. A person who has his own goal also has criteria for determining what is true and what is not, while a person who has no goals does not have these criteria. He is easily deceived.

Goal setting should be flexible and responsible. We must take responsibility for our goals, including goals that come down from somewhere else and we simply accept them. However, we must be able to abandon goals and replace them with others when necessary, while remaining selective about them.

Hence the potential options for impaired autoregulation in this link:

*1A: Lack of one’s own target criteria of what is desirable and the consequent inability to distinguish between “right” and “wrong” actions. A particular case of this is the lack of selectivity towards externally proposed goals and other criteria, the readiness to accept any goal or other criterion of what is desirable, which in this case will be unstable and will be easily replaced by another.*

*1B: Excessive rigidity of goals or other target criteria of what is desired, inability to abandon or change goals.*

1. The second part of the self-regulatory process is goal-directed actions, what in physiological models are called effector, executive actions. These actions can be further evaluated by whether they lead to the goal. It is important to understand: only a moving system, only a moving being can understand whether it is moving in the right or wrong direction.

Possible impairments of self-regulation in this link:

*2A – inactivity, inability to “cross the Rubicon” and start implementing endlessly revised goals and intentions, partly*

*related to lack of motivation (we have elsewhere labeled this dynamic feature of behavior “Hamlet’s syndrome”[7]);*

*2B – uncontrollable action. Here we deal rather with excessive motivation, which reduces the controllability and correctability of the action. The Yerkes-Dodson law, discovered more than a hundred years ago [see 18], says that in some cases excessive motivation is as bad as insufficient motivation. Here, as in everything else, balance is important. Too strong motivation sometimes makes our actions unmanageable.*

2. The third link in the self-regulatory process is the receptor, the perception of feedback. What is actually happening? Where am I? Most importantly, am I moving in the right direction or in another direction, am I approaching or moving away from what I want? In his time, S. Freud introduced the distinction of two main principles that govern our behavior: the reality principle and the pleasure principle [17]. The pleasure principle governs our actions, regardless of their outcome. I want and that’s it, my desires come first. The pleasure principle is a voluntarist principle of infantile consciousness. But in an adult, a second, alternative regulatory principle – the reality principle – is gradually formed. The reality principle says that the satisfaction of our desires must be considered in relation to the extent to which circumstances, reality in general, are favorable to the fulfilment of our desires. In some cases it is better to give up our desires.

In today’s world, there are a myriad of feedback mechanisms that keep us from wallowing in our own voluntarism. The question is how sensitive we are to these feedback signals, how much we reckon with them. The simplest case is technical devices. When we park, we switch on the parktronic and see how many centimeters are left before we hit a kerb or a nearby car. And we have the ability to react to these feedback signals so that we don’t make a mistake. Parktronic shows us what is really there, the distance between what we want and what we actually have. We may think we are parking very well and correctly, but the device says: no, what you think is your own business and the reality looks different. The question is how sensitive we are to these signals.

In relations between people, the highest form is dialogue (see [1]; [11]). To some extent, dialogue is what limits our voluntarism. The success of achieving our goals depends in no small measure on the extent to which we are able and willing to take into account the feedback signals that other people give us. If after a lecture one of the listeners says to a lecturer that the lecture is a load of rubbish and argues it in detail, the lecturer does not necessarily have to abandon all his ideas, but it is useful to reflect on the fact that perhaps he did not formulate them accurately, since he was misunderstood. It is necessary to rephrase them so that they are understood correctly. Feedback, even based on a false (mis)under-

standing, helps to improve further actions and get closer to what is desired. It allows, in other words, to develop and to improve. There is nothing more valuable and positive than negative feedback that gives us signals that something is wrong. Something can only be learnt from negative feedback, from working on mistakes. Positive emotional support is also important, especially in the upbringing and development of children, but it does not promote, only strengthens, helping the child to learn to trust himself and develop his own criteria, what is good and what is bad, and to develop motivation for action. The relationship between these two sides, cognition and well-being, is well reflected in the biblical story of the expulsion from paradise.

Adam and Eve had their eyes opened when they ate the forbidden apple from the tree of knowledge. "You will be like gods", the serpent told them, "knowing good and evil". Before that they did not know good and evil, they had no criteria of what is good and what is bad, and are they needed in paradise? In paradise, everything is invariably good and there are no goals to achieve. Paradise is an infantile situation by definition, there is nothing for an adult to do in paradise. Having eaten the forbidden fruit and learnt what is good and what is bad, Adam and Eve were doomed to plan their actions on the basis of this understanding.

Distortions in this link of feedback sensitivity:

**3А. *Insensitivity to feedback.*** A person may have some ideas and act by ignoring reality, or trying to rearrange it to fit his ideas. A clinical case of this gives a picture of paranoia. The person cannot doubt the adequacy of his ideas, he does not check them with reality, or the checking of ideas with reality is constructed in such a way that all signals of reality are interpreted as confirming delusions. But in life there are enough non-clinical, milder variants of the same syndrome. To measure this important characteristic of personality, we developed a technique for diagnosing sensitivity to feedback [13].

**3Б. *Hypersensitivity to feedback.*** Anxious worry about what others will say, trying to satisfy everyone, responding to everything. Unfortunately, it is impossible to please everyone. Recall the wonderful artistic image of the Martian in R. Bradbury's *The Martian*. This is a creature that took the form of all those whom the people around him wanted to see in him. Someone saw in him an old acquaintance, someone saw a dead child, someone saw a departed beloved, and he was endlessly transformed from one image to another, and when he appeared on the square, where all these people gathered together, he died, being unable to correspond simultaneously to all representations and all projections. This is an image of hypersensitivity to feedback, to what others see. So, sensitivity to feedback is a constructive property, but up to a certain point.

Enuresis, urinary incontinence, is one good illustration of the role of feedback and its disruption. The regulation of urination is a completely self-regulating process: a certain sensory stimulation, filling of the bladder leads to the need to empty it. In humans, it is more complicated. We learn control over these processes during our early development. We have to perform a more complex chain of actions in order to perform a necessary action — to get up, go to a special place and perform special actions in it. The nature of the process itself does not change fundamentally in an adult educated person. Only some ability to postpone, to control impulses appears. And immediate reactions turn into delayed, stretched in time.

A colleague of mine, Grigory Shapirstein, who once worked in a regional psychiatric hospital, developed a very effective and simple technique for treating bed-wetting (personal communication, 1988). He relied on A.N. Leontiev's classic experiments on the genesis of sensitivity [6], in which sensitivity to light on the fingers of the hand was experimentally formed, to illustrate the hypothesis of the origin of sensitivity in the process of evolution. Shapirstein suggested that the problem of enuresis was that the natural sensitivity of the urethral sphincter to its condition was absent or impaired. He constructed a method of restoring sensitivity to the state of the sphincter according to the same scheme by which A.N. Leontiev formed sensitivity to light on the fingers of his hand. This technique proved to be very effective. People suffering from enuresis quickly got rid of their annoying symptoms, because they formed the sensitivity that was disturbed. Here, initially, just that link of self-regulation, which is connected with receiving feedback on the current state of the process, was disturbed.

4. A mechanism for comparing feedback with criteria of what we want. We have to determine how the reality we perceive corresponds to what we want, how the intended and the actual relate to each other. It is in this link that we learn about our mistakes. Only through mistakes and through working on mistakes can we learn something, come to something. In a sense, all of life is a work on mistakes. Human being is imperfect. But we are able to move towards narrowing the gap between what we get and what we want. This movement is endless. The most important thing is whether we are moving toward decreasing that gap, or increasing it. We cannot determine whether we are far away from the goal, we can only determine the vector, whether we are moving in the right direction or not. In his time S. Kierkegaard [5] formulated the idea that health is not always good, and illness is not always bad. Everything depends on what trajectory we are on. Kierkegaard said that there is health to life and health to death, and there is sickness to

life and sickness to death. In other words, there is illness whose trajectory leads to recovery, and there is health whose trajectory leads to death. This condition in itself sets the stage for its own negation. Sickness to life is much better than health to death. Examples of sickness to life are high fever, which doctors do not recommend to bring down, because it is important for recovery. Another similar example is stress, the mobilization of the whole organism when it is faced with challenges that it cannot simply cope with.

In order to reduce the discrepancy between what we want and what we achieve, sometimes we need to change the goal, disengaging from the original one. If we see that we have done everything right, but the goal is not getting closer, in some cases the most appropriate thing to do is to disengage from the goal or “rearrange the route”.

The main distortion in this link is *blindness to mistakes, or, more precisely, unwillingness to recognize them and desire to hide them* (4A). Failure to recognize mistakes leads to their accumulation. A person does not want to recognize his/her mistakes, believing that he/she did everything right, because he/she cannot be wrong. In order to hide the mistakes already made, it is necessary to take new actions, which will lead to the buildup of problems. An illustration of this is a short story by G.K.Chesterton from the series of stories about Father Brown. The plot of this novella is about solving a crime that took place many years ago. A high-ranking officer killed his wife’s lover, and to cover up the crime, the next morning he sent a regiment into a hopeless attack and laid down an entire regiment so that the corpse of the lover would end up buried among the corpses of other officers. If you want to hide a leaf, says Chesterton’s character, where do you hide it? In the woods. And if you must hide a dead leaf, you must hide it in a dead forest. And a dead body among dead bodies. This is the trajectory that leads to an increase in the gravity of error and an increase in the distance between the ought and the real.

The same plot is revealed in A. Popogrebsky’s award-winning movie “How I Spent This Summer”. It shows a somewhat similar situation. The film is about the failure of normal autoregulation, departure from the normal trajectory and then restoration of this trajectory. One of the characters, who is supposed to be taking instrument readings at a polar weather station, oversleeps, makes a mistake. He is uncomfortable and tries to cover up this mistake. It starts with falsifying instrument readings, sucked out of his finger, ends with an attempted murder of his partner, so that the original mistakes would not surface. But at some point this trajectory reverses and the character is back on a normal trajectory.

Another possible violation of auto: *lack of correlation of feedback with target criteria* (4B). In this case, a person’s actions are random, impulsive, they cannot be evaluated as right or wrong even from the point of view of the person him/herself. A chaotic, Brownian movement arises. I know what I am doing, but I do not know about any action whether it is good or bad. An illustration of this is the tendency in American culture that emerged at one time (largely with Dr Spock’s easy hand) towards a permissive type of child-rearing, a pedagogy of permissiveness – children should be allowed everything, children should only be loved, etc. Evaluations and criticism are considered inadmissible. But any evaluation and criticism, for example, school and university marks, have two functions, two sides – the motivational, regulating side and the informational side. The statement about the harmfulness of marks is half the truth. As an external motivation they are indeed harmful, they replace, undermine the internal motivation [24]. But they are not only a motivation, but at the same time they have a feedback function. And if they are removed, a person ceases to orientate himself, whether what they have done is good or bad, whether it brings them closer to the goal or not. In the absence of such feedback they will not be able to improve, develop their actions, because feedback is a necessary prerequisite for development. That is why the model of permissiveness pedagogy failed and led to discouraging consequences, because, on the one hand, children brought up in such an atmosphere felt good, were satisfied with life and happy, but on the other hand, they grew up completely helpless in an unstructured environment. As a result, a person loses his/her bearings in the world, cannot move from the worst to the best. He loses the distinction of good and evil, as it was originally in the Garden of Eden. If we create a paradise for a mortal human being, they will not be responsible for their own life and will not recognize good and evil, distinguish one from the other.

5. The last link is the transformation of perceptions of this deviation into corrective impulses. Can one correct one’s actions, rearrange one’s route, if one sees that the route does not lead one to the goal, that something goes wrong. We can speak about two most typical and characteristic variants of reactions. Either one makes changes and tries to move towards the goal again, taking a different route, or one falls into despair and passivity, convinced that everything is bad. In the latter case, the inflow of information is normal, but at the same time the organism is unable to implement the appropriate controlling influence and change what needs to be changed, to correct the course of the process in accordance with Karl Marx’s famous thesis that the heart of the matter is not to explain the world, but rather to change it.

A very interesting problem concerning various aspects of autoregulation is the way people respond to failure. There is no great variation in our attitude to successes, but the attitude to failures reveals the widest range of possible reactions, from complete self-deprecation, despair to a fairly calm, normal attitude. Failures are a valuable resource for development, just like problems [12], provided that the image of the self and self-esteem are not rigidly tied to the fact of successes and failures. If a child is brought up in the consciousness that he/she is obliged to do everything perfectly, best of all, and any failure is a tragedy, a fault, or a sin and deserves punishment, — this is an extremely unhealthy situation. In the outline of the existential theory of personality of S. Kobasa and S. Maddi make a separate point of the proposition that the experience of failure stimulates self-determined development. This, however, applies only to those people who have managed to acquire in their early development a sense of their own value and consider themselves capable of setting goals and achieving them. For people with a less successful early start, the experience of failure may have a less favorable effect [20, p. 257].

Two polar variations in attitudes towards mistakes and failures.

5А. *Self-aggrandisement, denial of the very possibility of mistakes: "I never make mistakes"*.

5Б. *Self-deprecation as a consequence of any mistake made. "I made a mistake, so I am a hopeless loser and will never achieve anything"*. The last type of autoregulation disorders is best illustrated in psychology by the phenomenon of "learned helplessness" discovered in the 1970s by Martin Seligman and confirmed in animals and humans. Learned helplessness is a distortion of the executive link, the last link of autoregulation, although there are no abnormalities in the evaluation of the situation, what happens is evaluated and perceived quite adequately.

Both of these deviant variants are based on one common premise, namely that an error is a defect of the system, a symptom of inferiority, so there should be no errors. This is a false premise. There is no life without errors, all life is work on errors. All development is carried out only through mistakes and their correction, and only through this we move towards some positive results. It is enough to turn to the biography of any outstanding scientist, inventor, writer, artist. Each of them had a lot of

rejected, dead-end options before they came to the right solutions. That is how life works.

A normal and healthy attitude to failures and mistakes can have a person who was loved in childhood, not for the successes achieved, but just for themselves, and who has developed a positive self-esteem, a positive perception of themselves, regardless of the specific results of actions, an inner point of support. This is an important prerequisite for a calm, constructive, healthy attitude to mistakes and the ability to turn mistakes into developmental resources.

## Conclusion

This article aimed to reveal the general explanatory principle of autoregulation of activity in the context of the "functional paradigm" at the level of specific executive mechanisms that implement the principle of autoregulation of activity in various links of this holistic process. The proposed model reveals the explanatory possibilities of cultural-historical activity psychology in the light of modern challenges facing a changing personality in the changing world (A.G. Asmolov). Special attention is paid to distortions in different links of autoregulation, their systematization, which allows us to approach the targets of psychological assessment of both successful and disturbed self-regulation and thereby fulfill the task of developing a methodology of complex assessment of personality potential.

In other words, the above general scheme reveals specific mechanisms of how we can live well and how we can live badly. Successful autoregulation allows maximizing the use of available and building up missing resources of the personality for successful achievement of goals and preservation of personality stability in different domains of life activity. Disturbed self-regulation leads to problems in preserving stability and achieving goals even with enough resources. Our life by and large is what we want, what we strive for. A person does not always choose what they want, but they always do what they choose [14]. We make our own choices. Some of them are more controlled by ourselves, some less controlled for various reasons. If we come to results that do not satisfy us, then perhaps we should take more control over the choices we make.

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