

Research Article

# The Mechanism of Formation and Display of Sacral-value Relations in the Language of Culture

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## Abstract

The issue of mutual understanding of cultures is today more relevant than ever and requires careful, deep and comprehensive consideration. This issue does not lie in the plane of one knowledge's direction, but is located in the interdisciplinary field in a complex interweaving of different scientific directions. Today it is an obvious fact that cultures touch each other by ideas and the way of worldview. The world picture of any cultural community is built on clots of ideas. Ideas arise in the human psychic field and are reflected in language through a special mechanism created by a culture, which stores and transmits the way of its worldview for the next generations. The psychic field, unlike the external environment, which consists of a multitude of random factors, is a field of certainty. In the field of certainty, the first sacred-value links between man and the world around him began to emerge and to be established at the dawn of the culture's origin. The first connections were unprecedented, because they formed basic thought-forms and served as an impetus for the creation of a mechanism for their fixation and transmission. This mechanism is based on thought forms, thought images, mental templates and language. If thought-forms are universal for any culture, then the filling of thought-forms with thought images and the formation of mental templates on their basis, as samples for perception and understanding of the culture's value reality, occurs individually in each culture. Acting together they create a special way of worldview, which is represented in any form of culture: language, painting etc. All subsequent ideas in a culture are realised through the way of worldview created by it and arise on the basis of the world's value picture, which was built on the first sacral-value relations. In non-written languages, ideas are not conceptualised. They may exist disparately, but within a value picture of the world. Ideas are conceptualised in written language, which leads to the emergence of the ideology's prototype. The first written languages, while extending to cultures that were in contact proximity, or that were part of one large community, it was not able to fully conceptualise the value systems already existing within the culture. Written language was able to absorb such meanings, but was unable to assimilate or change the mental templates, and the value picture of the world built on them, of these cultures. Mental templates and ways of worldview are not influenced from outside and individualise cultures.

## Keywords

Way of Worldview, Sacral-value Relations, Mental Templates, Mechanism of Formation and Display of Relations, Cultural Language

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## 1. Introduction

The free existence of cultures and the authenticity of their development is a necessary condition for the preservation and maintenance of civilisation as a single social community. Human civilisation is an open system within which there is a constant interchange and interpenetration of various cultural realities. These realities usually have no equivalents in other languages, as they reflect the unique way of worldview within one cultural community. It is an undeniable fact that cultures touch each other with ideas about understanding the world. Since human beings are seen as part of the natural world, which is characterised by variability and uncertainty, it was the uncertainty of the environment that triggered the emergence of culture: 'culture emerges as a new way of adapting to the environment and living things begin to adapt to environmental changes through the development of culture' [33]. We assume that each culture creates an individual way of adaptation to the environment. This way begins to form at the dawn of culture and regulates the balance in the man-nature system, and maintains the state of certainty in the human psyche. The diversity of cultures and their difference makes the question of the mechanism of formation of individuality of culture relevant.

The aim of the study is to explain how a person in a culture adapts to the world around him or her and what mechanism the culture uses to make the world definite for the person. The advantages of such a study are that it sheds light on how culture has shaped its way of understanding the world and how it has anchored it in all spheres of human life. Several objectives follow from this. 1. How through culture man adapts to his environment. 2. What mechanism of adaptation each culture chooses and what is the essence of such mechanism. 3. How the mechanism created by culture selects from a series of constantly arising ideas and events the most necessary for man to coexist harmoniously with the world around him. 4. How sacred-value relations are reflected in the language of culture.

The study is situated in an interdisciplinary field, drawing on research findings from biology, cognitive science, language, neuroscience, particularly in the field of cultural neuroscience [22], which looks at the relationships between culture (e.g. values and belief systems) and human brain function [12, 16, 21], on the influence of cultural processes on the structure and functional organisation of the nervous system [13], and others. Based on the studies of these sciences, we propose to look at culture from the point of view of the mechanism we propose, by means of which culture creates its individual way of worldview and balances the system of man-nature. Analytical and predictive methods were used in the study to determine the cause-and-effect relationship between existing phenomena, namely the human psyche, culture and means of expression, in particular language; the descriptive method made it possible to describe the mechanism of human adaptation to the environment developed by culture.

The selective method of research made it possible to choose as examples different forms of displaying the mechanism of adaptation, which is regarded as a culturally created way of understanding the world; the comparative method made it possible to illustrate the theoretical justification with examples of several cultures that belong to different language families. The linguistic method made it possible to analyse linguistic phenomena in different cultures and to highlight their significant aspects for the study; the idiographic approach made it possible to identify individual characteristics of cultures, which were cited in the study as an example.

The results of the study showed that the mechanism created by culture helps to balance the relationship between uncertainty and certainty within the nature-human system and at the same time maintain cultural homeostasis within the community, as well as regulate the relationship between the community and the world. The mechanism of regulation is based on mental templates. They are formed in thought-forms filled with the first meanings, are a model for further processing of information and construction of meanings, are stored in human memory and are passed from generation to generation through the genetic chain. The first mental templates created a way of cognition of the world and laid the foundation for the formation of the culture's world picture. One of the important functions of the regulation mechanism is the value filling of mental templates. The value filling is formed by sacral-value connections. This mechanism creates mental processes, it 'triggers' and supports memory processes. The homeostasis of culture allows it to be an open system and respond to the influence of the external environment as effectively as possible in order to preserve its authenticity. Every culture creates its own unique picture of internal social interaction. Sacred-value relations influence and regulate the homeostasis of culture. The homeostasis of culture means the ability of culture to maintain such internal social interaction, which allows to preserve the integrity and constancy of its internal environment and ensures its development. Sacral-value relations are reflected in the language of culture.

The results of the study will help to realise and understand the reason for the difference between cultures, their cultural realities and the ideas that culture produces. Accepting the plurality of cultural realities will broaden the knowledge of the world and may become an impetus for the spiritual development of civilisation.

The results of the research may become an impetus for its representatives to study the deep foundations of their culture, to understand the operation of such mechanism within the culture and to clearly define their mental templates. Identifying such patterns will be an important step towards finding harmonious points of contact between cultures. We assume that there are no universal points of contact. We should take into account the fact that linguistic ways of presenting the world are different. We are talking, first of all, about semantic

expression. Cultures belonging to the same linguistic family have similar worldviews. But it is difficult to find ways of contact between cultures whose languages belong to different language families. These issues require further and more careful study.

## 2. Ideas as Factors of Cultural Development

Any contact between cultures is accompanied by the exchange or borrowing of cultural realities, which involves certain peculiarities. For example, cultures belonging to the same linguistic family tend to exchange cultural realities, which helps them to broaden or deepen their understanding of the world. Such cultures have a somewhat similar vision of the world. Cultures belonging to different language families tend to borrow cultural realities. When borrowing other cultural realities, there is no broadening or deepening of the understanding of the world. The reason for this is that such cultures have different worldviews and understanding of their own development.

Neuroscience explains different views of the world by the workings of the brain and the neural processes that take place in it. Information received from an external object is turned into a nerve impulse that enters the brain and is turned into something that is identical to the external object. 'This identity allows us to 'recognise' the external object instead of actually seeing 'it' [34]. The human psyche gravitates towards certainty. The human environment consists of many random factors, but in the human psyche it must be certain. Obviously, such certainty is provided by perceptual filters (ideas, beliefs, values, experiences, metaprogrammes, memories, language) superimposed on the constantly changing surrounding reality. 'Our organs of smell, hearing, taste, touch and representation may form mental fields that are identical to external things, and they allow us to recognise them' [33]. Mental fields differ across cultures. This difference occurs at the stage of representation of processed information. A representation is nothing but a mental image of an object. It is the representation of an object that is the result of perceptual filters. These filters help to cope with a variety of information that is constantly coming in from the external environment. Filters are mental attitudes that help to 'hold' mental certainty and allow a person to 'recognise' the world. 'Cognition is a process of forming perceptions, and with perceptions come language, knowledge, tools, and fire' [34].

Recognising the world, rather than seeing it accurately, anticipates the appearance of ideas (Plato's term). Plato's notion of 'ideas' is reflected in the statement: 'If we do not see it, we do not see it; but if we see it, we do not see it', 'And about these many things we say that we see them but do not understand them, but about ideas we say that we understand them but do not see them'. The meaning of the word 'idea' in ancient Greek was formed from the Proto-Indo-European root

'weyd-, which meant "to see". Ideas are nothing but a mental model of things perceived by the senses. Plato believed that only the study of ideas may lead to knowledge. According to Kant, an idea is 'a mental image that surpasses the world of the senses and has nothing like it in the world of experience'. 'Ideas include ontological, teleological and logical meanings. They are innate ideals as well as the order of all existence simple, incorporeal, indivisible and unchanging. Ideas are permanent in the changeable, eternal in the transitory, unified in the diffuse, one in the many, general in the manifold, universal in the individual, pure in the mixed, and perfect in the imperfect. The two worlds (Plato's world of ideas and the world of things) are respectively being and becoming, model and copy, absolute and relative, in super space-time and in space-time' [10].

In the dictionaries of different languages 'idea' is understood in different ways. So, for example, in Russian an idea corresponds to a concept [23], in English it is understood as a finished thought, a belief or opinion, a copy of a pattern. In Arabic, an idea is seen as a thought, a mental image that wanders in the head, which a person pulls out after fulfilment, an impression 'the right idea - forms a general idea of the subject'. In ancient Chinese, idea is understood as meaning. It is related to the five constants and is the basic categories of Chinese Confucian ethics - benevolence, righteousness, decency, wisdom and trustworthiness.

Languages of different cultures have different interpretations of the word 'idea', which, although at first glance its understanding seems to have strayed far from its root meaning, still the meaning of 'vision' is explicitly or implicitly traceable in every language. In addition, worldview and thought create a meaningful pair. For example, the Qur'an shows this connection very clearly: 'sight and contemplation give rise to thought'. Al-Fayrouzabad defined it as 'thought, unfolding and opening is the act of considering something like before the idea' [3]. This implies that there is a difference not only in the very understanding of the word 'idea', but also indicates the existence of different 'worlds' of ideas. The worlds of ideas of cultures are distinct. For Russian culture, ideas arise in the process of understanding and are associated with understanding of the world. Understanding of the world gives birth to ideas. For Arab culture, contemplation of the world (observation) gives ideas. Ideas are intermediaries between contemplation and knowledge. With the help of ideas, contemplation is transformed into knowledge. Al-Raghib\_Al-Isfahani defined this by saying: 'Idea is the power that brings knowledge to the known, and contemplation is the process of this power respectively from the point of view of the mind, and it is for man' [2]. For Chinese culture, the world of ideas is a world of meanings. Everything in the world has a meaning, and ideas are the meanings of this world. Meanings give rise to ideas. The source of the world's meanings was well said by Xunzi: 'Water and fire have energy but have no life. Vegetation has life but has no meaning. Animals have knowledge but no

meaning. Humans have energy, life, knowledge, and meaning, so they are the noblest in the world' [28].

For English culture, ideas are found in finished thoughts and beliefs. As we may see from the above examples, the world of Plato's ideas is understood and perceived differently in different cultures. Accordingly, there are also different ways of comprehending ideas. In English culture, comprehension of ideas is possible through thinking, that is, creating new thoughts about the existing world. The English language is well pronounced analytical and is characterised by constructionism (knowledge is recognised as 'constructed', i.e. not reflecting any external reality, and it is the task of constructing new conceptual systems, methods of thinking and meaning-making). Ideas are born in beliefs. One of the meanings of the word 'idea' in ancient Greek is beauty. Probably, Plato's world of ideas was meant as a world of beauty. Hence, the beauty of man is in his thoughts.

In Russian culture, comprehension of ideas is possible by understanding the world, its correct perception and interpretation. It is not by chance that Russian is the richest language for synonyms. Any word is capable of creating its own synonymic series. This may be explained by the fact that the interpretation of the world requires a versatile approach, and synonyms are able to do this. Ideas are born in understanding. Hence, the beauty of man is in his understanding, empathy and belonging.

In Arabic culture, ideas may be comprehended by contemplating the ayats of the Qur'an. The word ayat means a sign, an omen, something sacred. Contemplation of the sacred promotes reflection, which leads to knowledge. Ideas are the result of contemplation of the sacred world, and they contribute to knowledge. Hence, ideas are the path to knowledge of the world. The rhythm and richness of the ayats of the Qur'an resembles the rhythm and richness of the ancient Arabic verses, the qasidah. Contemplation is not unitary, it is an individual vision and comprehension of the world. Perhaps that is why all qasidas are built on metaphors. It is metaphorical versification. Classical Arabic has the richest resource of metaphorical images. Contemplation metaphorises the world. In metaphor, each person sees his or her own world of beauty. Ideas are born in knowledge. Hence, the beauty of man is in his knowledge.

In Chinese culture, the comprehension of ideas is possible by understanding the meanings of the world. The meanings of the world are 'contained' in characters. Each character has the ability to expand its meaning. For example, the hieroglyph 义 first appeared in inscriptions on oracle bones and bronze inscriptions of the Shang dynasty. It resembles a decorated serrated weapon with a long handle. This weapon is a ritual vessel often used in various ceremonies. In a broader sense, it refers to the foundations of moral character and principles of ethics. It is also used to denote justice [29]. Hieroglyphs stand for words and these words are very similar in form to the things they represent. Recall from Plato the world of things and the world of ideas. A hieroglyph is the form of a thing and

contains meaning. Thus one ideogram, which the hieroglyphs are, contains a thing and its idea. The world of things and the world of ideas are in inseparable connection. The thing determines the meaning or the thing determines the idea. The material world creates the world of ideas. Man is at the centre of this world - between the world of things and the world of ideas. All hieroglyphs of the first order contain five primary elements (substances), of which the world, animal world, etc. are composed. Expansion of the meaning of hieroglyphs went in the direction of ethics, which united the society. The meanings of the world (its ideas) are manifested through morality. Ideas are born in morality. Even though Chinese language has become morphemic over time, it is still as meaningful language. Hence, the beauty of man is in his morality. Chinese language traces the metaphor of meaning, or else meanings are metaphorised. And so, any culture within its community forms its world of ideas. The formation of this world is influenced by the way the representatives of this cultural community see the world.

Any culture exists in three dimensions - being, space and time. The ideas that a culture produces from its picture of the world concern only being, space and time. Man is capable of deriving ideas by thought from both empirical observation and theoretical observation. Thinking is a stream of constant change of mental events. Ideas began to arise simultaneously with the formation of human community. 'It may be assumed that the social roots of subjective individual self-organisation and dynamic localisation of functions play a special role in brain activity, in the formation and development of complex systemic thinking. For each dominant neuronal cell there are many interconnections (more than 10,000), including with synapses of cells in the frontal lobes of the brain. The activity of these connections depends on meaning clusters that depend on the peculiarities of the interaction of the individual with his or her social environment. All actions of the subject are always performed in the context of one or another cultural activity' [7]. A. Luria believed that language plays a crucial role in the processes of thinking and behaviour. And so, ideas are formed within a culture and focused around its being, its space and its time [24].

The image of the world of culture consists of a set of ideas, which are united by the way of worldview. Emerging ideas are formed around the created image of the world, they expand its meaning. The ways in which cultures expand meaning are different. For example, the expansion of meaning may occur through understanding, through contemplation, through the acquisition of new knowledge, through the formation of new beliefs, etc. Expanding the meanings of the image of the world is the factor that influences the development of culture.

And so, ideas began to arise simultaneously with the emergence of human community, created the image of the world of culture. Their functioning is subordinated to the way of worldview. Emerging ideas expand the meaning of the image of the world.

### 3. Mental Template as a Way of Storing and Representing Information

#### 3.1. Thought Forms and Thought Images as a Basis for the Construction of a Mental Template

Psychic processes occur continuously, the perceptual system of a person works constantly, then the question arises: is the world around a person unstable? Or does instability appear due to specificity in the work of the human perceptual system, which is connected both with the work of the brain and with all biological processes taking place in the human organism? The work of all systems of the human organism depends on both internal environment and external environment. Perhaps this is why brain distortions occur. We assume that environmental variability as a constant change of events comes not only from the external world as such, as is traditionally believed, but also depends on the correct functioning of all systems that are in the organism, including the perceptual one, which is 'managed' by the brain. To maintain the certainty of the world in the human psyche, nature has specially created a mechanism that culture has activated. It consists of a thought-form, a thought-image, a mental template and a language.

'Constant evolutionary force leads to the emergence of systems endowed with ever greater degrees of freedom. This increases their adaptive abilities, they may actively utilise the environment by searching in it for sources of the necessary and escaping from sources of the harmful. To do this, they must have more advanced memory and access to it' [32]. Human consciousness is derived from animal psyche and was formed through a process of formation, accumulation, abstraction and generalisation of conditional relations [34]. The conditional connections of a person with the surrounding world are unstable and unstable, but the connections established between objects or phenomena become stable and form a thought-form. Thought-forms are filled with information. Information is stored in thought-forms, is connected with memory and is a memorised choice of one option out of several memorised and equal options [11]. Nature is fractal. The human eye is able to capture the fractality of the world around us, that is, it is able to see and perceive an object in its three-dimensional dimension - height, width, depth. 'All sensory aspects of the world model are shown to be spatial, that is, what we see, hear, feel, savour or smell is related to space, or rather that it may be found in a particular area in mental space' [1].

The first basic thought-forms necessary for human beings determined the way of worldview and created the foundation for the formation of culture. Thought-forms are static and unchangeable. They became the proto-roots of the languages that emerged later. Thought-forms created at the dawn of a culture do not disappear, they exist outside of time and like

DNA are transmitted between generations of a cultural community through the genetic chain. 'Gene memory allows us to remember the experience of previous generations, laid down in the form of genes, and memory in the form of images allows us to preserve our own experience' [32]. A thought-form is capable of reproduction without the slightest loss of information that is stored in it.

A thought-form becomes the basis on which thoughts are formed and images are created. A large number of thought images may be created on the basis of one thought-form. 'An image is a very information-intensive mechanism that allows us to remember many details of incoming from the external or internal environment and details of the response to this stimulus' [32]. Thought images are resources for creating ideas. Combined in groups they create an idea.

The first thought images are found in cave paintings, oracle bones, ornaments, figurines, masks in African cultures. These images may be expressed through sound, graphics or movement, as they all represent a single way of seeing the world. Using the example of fine arts, let us try to prove that thought-forms formed at the dawn of culture 'govern' the world of ideas in any culture.

Despite the fact that the basic thought forms may be similar in cultures and their difference is barely perceptible, but it is this difference that has influenced the formation of the individual way of perceiving the world. Fundamental thought-forms set the way of building a culture's sacred-value picture of the world and its understanding. For example, European painting abounds in colour, the entire space of a painting is filled with colour. Despite the fact that colour first appeared in cave paintings, it remained dominant in European painting. Science has proven that colour is a subjective sensation arising from the impact on the visual analyser of an electromagnetic wave of a certain length. Subjectively a person may not feel colours or perceive them distorted. Quantity of colour symbols is rather limited. Most often in this capacity are used so-called 'basic colours' to which, usually, include white, black, red, blue, green, yellow and violet. This list may vary depending on the particular culture. Since its inception, colour symbolism has been most closely associated with magic and religion. As archaeological, historical and ethnographic studies show human mystical perceptions and colour symbolism were closely related [5]. The repetition of colour and drawn figures in paintings reinforces the belief that the world is just like that and may not be different. Colour conveys feelings and seems to consolidate them. Let us relate this to the meaning of the word idea in the languages of different cultures. In English, an idea is a belief, a finished thought, a copy of a pattern. We may conclude that in English culture (and now also in some European cultures) the world of ideas is the world of beliefs.

Classical Chinese painting, although the nature of China is colourful and multifarious, adheres to more restrained tones. The background is always translucent, barely visible, most of it light, similar to the background of oracle bones. Colour

space is widely used as a mental representation [14]. B. Turner described in detail the symbolic meaning of the three main colours in the life of primitive man and showed that, in general, white denotes goodness, kindness, happiness, development. This generalised meaning of white is universal to all primitive peoples, both ancient and modern. White for them is a symbol of being, peace, life [5]. This background reinforces the meaning of what is happening in the image and may be considered a way of making sense of the world. The world is not made up of beliefs. Beliefs limit a person. The world is limitless in its meanings. The beauty of the world is in the multiplicity of its meanings. Chinese characters are meaningful. In Chinese culture, the ideas of the world are hidden in its meanings, particularly in its ethical meanings.

In Islamic culture, the depiction of living beings is forbidden. The world around man represents Allah and man may not depict anything like Allah. But there is ornamental art of arabesques - complex ornaments consisting of endlessly repeating and echoing each other geometric figures, patterns resembling animals and plants. Firstly, ornamental art is one of the most ancient arts. Secondly, despite the fact that Arabic is an alphabetic language, its alphabetic side resembles (is similar to) ornament. Thirdly, ornament is a pictorial thought-form. The world of ideas in Arab culture lies between the contemplation of the world and its knowledge. Arabesque draws the eye to contemplate this thought-form of the world, to gain new ideas and new knowledge. In Arab culture, the world of ideas is the world of knowledge gained through contemplation.

Thus, the fundamental thought-forms created at the dawn of culture determine the way of worldview and create a picture of the world. The way of worldview is universal and concerns any form of human activity - art, language, etc.

### 3.2. The Mental Template: Formation, Structure and Representation in Language

George Lakoff argued that the entire human thought process in the human mind is three-dimensional or spatial, while language is only one-dimensional. The dimensions of space are material properties, location and time [14]. The human psyche processes the events of the three-dimensional world. In the three-dimensional world, humans gain a spatial mental representation and form depth perception. Language is built on a one-dimensional dimension. When people communicate the grammar of language helps them to transcode from the three-dimensional dimension to the one-dimensional dimension and vice versa. This means that in order to understand what the other person has said, the receiver must recreate his or her own three-dimensional experience. This experience is created from three-dimensional sensory experience into one-dimensional language and back again [1]. Jean Piaget believed that: 'language does not fully explain thinking, since the structures that characterise this latter are rooted in action and in sensorimotor mechanisms deeper than linguistic reality.

Still, it is clear that the more complex the structures of thinking become, the more necessary language is to complete their processing. Hence, language is a necessary but not sufficient condition for the construction of logical operations' [27]. The results of a study of corpuses of 5 languages, including poetry, which is more than three thousand years old, have shown that despite the diversity of genres and the length of sentences in them, human language has a remarkable overall simplicity [17]. Space and time are eternal concepts or, in Kant's definition, categories of the human mind. They predetermine our perceptual reality and, whether they are either structural data of the mental apparatus or derived from kinaesthetic and visual experience, they may not replace each other in real life [19]. In the human conception of space, things in space are basic, and qualitative spatial relations between them create temporal constructions. What things are and what spatial relations are depends on space [31].

Although the transcoding of the three-dimensional dimension of space into the one-dimensional dimension of language takes place by means of the grammar of language, but the process of transcoding itself is carried out in the mental template. The mental template is created on the basis of memorized choice of one option from several options offered by memory. Obviously, the memorised choice is a repetitive event and a uniform reaction to external stimuli. External stimuli are represented by stimuli. 'Stimuli are the original source of information for human cognition. The object and event are stimuli that are processed by the human cognitive system' [14]. A memorised choice is fixed in a mental template and stored in a person's memory. Mental templates act as 'memory cells'. Mental templates 'capture material and spatiotemporal characteristics of entities and may be represented by feature value, location space, and time' [14]. Mental templates influence human cognitive processes.

Mental templates appear to be a complex formation. Their formation involves the perceptual system, brain substrates and the possibilities of the human psychic field. The perceptual system uses the optical fractality of vision as a dominant feature. Brain substrates (autonomic, motor and 'psychic' brain) use their ways of reflecting the properties of the environment (emotional, motor and cognitive). These ways, in turn, take as a basis one of the three parameters of the environment: matter-energy, space-time, information [6]. The human psychic field and its possibilities are represented by scientists in different ways. For example, Chang presents the human psychic field as three-dimensional worlds of body-mind-spirit, where body correlates with law and wealth of the material world, mind with morality and reputation, and spirit with spirits (gods). In the three-dimensional world, man is beyond life and represents a more colourful world [10]. D. Voronov presents the psychic field in the form of a fractal model and connects all its levels with genetic memory. He distinguishes high-order levels - individual (people's everyday life in which they use logic), collective perceptions (morals, beliefs, superstitions, prejudices, myths and religious beliefs),

concentrated way of obtaining information (creative intuition, enlightenment) [32].

Mental templates are created from an image-filled thought-form. The fixed images are encoded as symbols. 'Image encoding is a representation in the form of a symbol of the incoming image, the outgoing image (action) and the connection between them. All this is characteristic of human thinking, is called logic and is projected by man onto the whole visible (physical) world. Why is this? To increase degrees of freedom, because the complication of the environment and ways of reaction to it became such that a real enumeration of possible variants became impossible. Then the complication of the system 'thinking' led to symbolisation of images, which made it possible to perform abstract work with images and their complex combinations. It became possible to operate not only with words-symbols (labels) of images, but also with words-ideas. This means that labels were detached from images and began to treat them as if they existed on their own. This is abstract thinking, peculiar only to man. The pinnacle of this ability was the ability to realise the image of oneself, one's difference from others, one's connection not only with the natural world, but also with other people in the whole variety of these connections. It became possible to 'detach' the idea of 'I' from the image of 'I'.' [32].

The function of a mental template is similar to the function of a membrane in a living organism. It lets in the psyche of a person useful for him/her elements of the environment and does not let in elements harmful for him/her. These actions are connected with genetic memory. Mental reality selects from the images stored in memory that correspond to the incoming information. Therefore, a person 'selectively' fixes information received from the external world. In processing such information, a person uses cognitive abilities and the neurological system of language. Brain neurons, interacting on different brain substrates, are able to process information stimuli that they receive from the perceptual and motor systems. The process of perception and information processing is continuous but phased. Processed information that is memorised is 'packaged' into mental templates.

Different cultures have different mental templates that influence the way they interpret the world and represent it in language. In modern science, there is a theory of mental schemas developed by Jean Piaget [26] and continued by Frederick Bartlett [4]. Scientists have proved that new information is processed in line with an existing schema. Cultural schema can influence memory. 'Recollection of previous events and experiences are actually mental reconstructions that are saturated with cultural stereotypes and personal habits, rather than direct memories of observations. that were made during those events. A person may only perceive a small part of the events while, they are happening. But over time, he may reconstruct the event as a memory gap in observation and perception is filled by previous experience' [4].

Mental templates built by culture protect its representatives from potential informational chaos of the external world.

Human consciousness is only a reality created by the psyche; it is not capable of functioning in chaos. Any contact of consciousness with chaos makes it illogical and, consequently, defective. Any new phenomenon or event that is not peculiar to a culture, which is chaotic for the representatives of this culture, its bearers try to change, adjust, make it more habitual and acceptable for their own cultural point of view in various ways, i.e. to adjust it to the mental templates existing in it. We assume that mental schemes of a culture are also based on mental templates.

Mental templates also contain a value orientation. The value orientation was the result of acting on a stimulus and receiving a 'reward'. It was the first 'value experience' of a person in the community. It concerned, above all, the organisation of the community and created possibilities for its harmonious coexistence with the natural world. Joint collective actions brought a person into a special mental state of power or ecstasy. It should be noted that any joint actions could strengthen the emotional-psychic connection between people and lead them to emotionally strong excitement and pleasure. Such a state created special connections between a person and the world around him. The stimuli of the external world began to be perceived as something that could not be structured and organised. This received the meaning of the supernatural, going beyond the space of the body and existing in the space outside the body. There was a layering of meanings in the mental template. Such layering was unsystematic, so it became special, sacred, which man tried to repeat. This is how traditions of honouring higher powers, etc. arose. The communities developed and expanded, new tribes and associations were created, but the formed basic template with sacral-value filling remained the same. It is ingrained in the genetic memory of man. This explains why universal values are similar in cultures and why beliefs, traditions of beliefs and mythology have similarities in languages and cultures belonging to one branch of one language family or in general to the language family as a whole.

Words are more experiential. This means that mental templates represent themselves through ideograms. Let us give examples of representation of mental templates in languages of different cultures. In Arabic culture, the space of place is one of the basic spaces. The Arabic language keeps many words for the space of place, which were created by different dialects. The relationship between man and place is important in the Arabic sacred-value picture of the world. In ancient times, a place was defined according to its topographical description. The name of a place in Arabic is characterised by diversity and precision. The word 'hill' has about 20 names and all of them are not synonymous. Hurama- a hill that drops down into a valley, Datur- a perfectly round deserted sand hill of medium height, perhaps it is a hill that people often trample and in the language it is 'dotted earth' Dek- a solid mound of earth, a small sand hill, about three metres above the ground, without stones or trees, a high sand hill. Sayali- a sand dune with sand that is impossible to stand on, it swallows up anyone

standing on it. Shamih - a high deserted sand hill. Taas - the sand hills of the desert. Arkub - a sand dune high above the ground, a part of a valley, a place with strong curvature and tortuosity, etc. Each of these words forms a different thought pattern. These and other words may be found in the 127-volume Historical Dictionary of the Arabic Language. It is no coincidence that the Arabic language uses words that describe in detail the toponymy of the surrounding space. This detailed descriptive characterisation is related to the contemplative thinking inherent in Arab culture, which involves marking out a space for observation or holding an idea before the mind. It is a deliberate act of receptive inner observation and exploration, whether in relation to a specific object of contemplation or a deeper connection to the core of our being [17]. According to V. Dahl's dictionary: to contemplate, i.e. 'to consider attentively or for a long time, to observe, to look at with meaning, delving into, deepening into an object, studying it, admiring it // to enter into something mentally, with the mind, with the spirit'. 'Contemplating nature, we also contemplate the greatness of the creator' [15]. According to psychologists, contemplation develops personality and brings joy. We have already noted that the way of knowing the world in Arab culture is to know the world through contemplation. The Arabic language metaphorises images.

In Chinese culture, the world is made up of symbols. All the symbols of the world have their own meanings. Symbols are fixed in characters, and they also contain meaning. Since a symbol is multifaceted, a character representing a symbol contains several meanings - from a concrete reality to its abstract meaning, which is connected with ethical virtues (Confucian virtues). We assume that this accounts for the persistent connection between the psyche and the object world. As an example, let us take the Shuishu script, which means 'book of water (water book)' and preserved a similarity to the ancient oracle bones. The bones of the oracle formed the basis of the hieroglyphic lettering of the Chinese language and created their semantic base. Water is fluid and plastic. We assume that the world is also fluid and plastic, its meanings are flexible and fluid, may change their direction (change). Secondly, some Shuishu hieroglyphs are pictographic (they are basic) and resemble the figures of birds and fish, some resemble the characteristics of things to which they refer, for example, snails are depicted with spirals inwards. These ancient, probably the first inscriptions, demonstrate the first conventional human connections with the world and the endowment of their first object or material meaning. Borrowed from Chinese, the characters represent abstract meanings - direction (up-down, left-right), seasons, numbers, ganzhi (trunks and branches; ten heavenly trunks and twelve earthly branches). Mental templates are filled in such a way that they unite objects of the same type with similar or similar spellings and create their common ideographic meaning, in the form of a concept or image and it does not matter in what type of text it is used and in what environment of other meanings. It is characteristic of hieroglyphics to increase the

concentration of information. It's like a Mobius strip. Which explains the possibility of moving inwards and at the same time unfolds the space outwards. The deep meanings hidden in hieroglyphics open up space. It is a model of the world of ideas. This is how the meaning metaphors so characteristic of Chinese culture are created. Mental templates act as models for perceiving and understanding the value reality of the culture.

Thus, a mental template is created in the mental space of a person. Its task includes structurisation and interpretation of events fixed in a mental field of the person. Mental templates are stored in memory and contain ideograms.

## 4. Mental Templates of Culture

### 4.1. The Oldest Linguistic Representations of Mental Templates in the Culture Model

The first mental templates formed a way of seeing the world and laid the foundation for the creation of culture. The way of seeing the world defines culture. Anthropologist Ruth Benedict calls this the 'configuration of culture' and emphasises that 'the configuration of culture often reveals a remarkable constancy'. Configurations create specific purposes that a culture and its society pursue. 'Cultures are characterised by generally different orientations. They follow different paths and pursue different aims; and the paths and aims peculiar to one society may not be evaluated in terms of those of another society, because they are incomparable in substance' [8].

A way of worldview is an individual constructed shared collective representation of the world. Human beings' first perceptions of themselves and the world are related to the motor-perceptual system. 'One of the critical spaces for human behaviour is that of the body. The body is naturally divided into parts that differ in size, perceptual capacity, and functional significance' [31]. The space of the body required a special coherence with the space of the world. Collective actions contributed to this coherence. Collective actions activated mirror neurons that created stimuli and 'reward' Reward is a special state of human psyche that causes positive emotions in response to a stimulus. This allows a person at the preverbalisation stage to form the first emotional connotations, which will later play a major role in shaping the authenticity and self-sufficiency of a culture. Meaningful connotations create associations, Human actions to which the brain reacts with 'rewards' acquire meaning. This meaning is attached to the stimulus, reflected in a mental template.

The archaic nature of linguistic connotations is pointed out by many studies. 'The most archaic components in this respect are precisely the emotional-sensual, or perceptual-evaluative ones, since it is these components that precede verbalisation. In the process of verbalising surrounding objects and phenomena, these primary sensations are uncon-

sciously embedded in the semantics of the word. Therefore, phonetic and connotative components are the oldest. The conceptual core is formed later, during the period of formation of differentiated worldview and learning. Finally, the stylistic component is formed much later (both in universal and individual terms), with the emergence of social groups, division of labour, cultural norming of communicative situations, etc.' [25]. If we look at connotation from the point of view of genesis and reflection theory, we may notice a certain regularity. Firstly, connotations express the emotional and evaluative connotation of an utterance, semantic transfer, additional meanings and reflect the cultural traditions of society. Secondly, connotations are the basis of metaphors (they are considered to be ancient means of expression), they fix moral and ethical characteristics for an object (for example, 'fox' is cunning, perfidy), define quality (for example, wind is impermanence, swiftness). Examples of connotations are given for the Russian language and Russian culture.

Language connotations and different languages, despite their apparent emotional-evaluative universality, are represented in different ways. This difference is already visible in their understanding, which is presented in dictionary entries. In Russian and English they are called connotations (the term is borrowed from logic), in Arabic such meanings are regarded as implicit, in Chinese as cultural words. Connotations define an ancient idea of the surrounding world. Such words are derived from a certain cultural background and are associated with a certain cultural background. Cultural words reflect a nation's social conditions, religious beliefs, customs and habits, aesthetic taste, way of thinking, psychological state and many other cultural factors [20].

Connotations are not the only way of proving the existence of mental patterns. The first phrases spoken by a child in any culture usually involve action verbs. Action verbs are universal and are considered to be the first human-created words. There is evidence for this idea in modern science. 'Children's early ability to learn common words is particularly impressive given that common referents are abstract (it is impossible to specify their kind, only instances of the kind) and their semantics may not be reduced to a specific number (as opposed to 'some,' 'most,' or 'all'), e.g., birds fly' [18].

The question of the influence of the first mental templates on the formation of the way of worldview seems to be an interesting one, since any culture is rarely in complete isolation, although such cases are present. Every culture is located within its own area in which there is a centre and a borderland. 'These frontier regions are deprived of close contact with the most typical branches of their culture and are open to strong external influences. As a result, they may often borrow - both in social organisation and in art - the most contradictory customs. Sometimes cultures of this type manage to bring new harmony into the original non-harmonious material and achieve results that are completely uncharacteristic of the cultures from which they borrowed many features. The loss of cultural interaction may occur not only in marginal tribes, but

also in tribes that break relations with their close clans and move to an area where another civilisation already exists. The conflict between the new influences on the settlers and what might be considered their innate behaviour is then most obvious.' [8].

The answer is obvious. If a culture, which is influenced by other cultures, borrows something from them and these borrowings have no correspondence in itself (it has not formed a mental template for the reality), then contradictory customs appear in the culture. But the symbiosis of customs does not prevent a culture from developing its way of worldview. If a culture, having borrowed a reality, creates something of its own, which is different from the borrowed reality, it testifies to only one thing. At the time of borrowing, the culture already had a mental template for a reality similar to the borrowed one. In this case, there was a mental 'lapping' and two similar meanings merged in one mental template to form a unique mental image. The examples given in Ruth Benedict's study show that a culture could borrow any non-existent reality. Borrowing a reality for which there was a mental template within the culture, filled with value meaning, the culture remained within its template. This proves the fact that mental templates containing a value reference were formed at the dawn of the formation of a cultural community and were resistant to borrowing. Mental templates with value reference became the basis for the formation of the value core of culture. In primary societies, social organisation preceded spiritual organisation. In time they formed the sacred-value system of the community - its morality around which culture began to form. An example may be found in R. Benedict. 'For example, the Kwakiutl, before moving to the coast and Vancouver Island, they belonged largely to the culture of the Salish people to the south. The Kwakiutl still have the myths, special settlement patterns and kinship terminology that link them to this people. But the Salish people are characterised by extreme individualism. Inherited privileges are minimised here. Each person has practically the same opportunities as anyone else. His position in society depends on his luck in hunting, his luck in fortune-telling, or the successful exercise of supernatural skills in healing or divination. However, even such a stark contrast did not prevent the Kwakiutl from adopting an alien cultural model. They came to regard names, myths, totem poles, guardian spirits, and the right of initiation into certain alliances as private property. Nevertheless, in Kwakiutl social institutions there is the necessary regulation for adaptation, and it is particularly evident where the two social orders are least congruent, i.e. in the mechanisms of social organisation. For although the Kwakiutl adopted in general the system of privileges and potlatches characteristic of the Northwest Coast, they did not adopt the oblique system of the matrilineal clans of the northern tribes with their fixed framework of inheritance of privileges. According to northern tribal customs, an individual inherited a noble title and its attendant privileges by birthright. With the Kwakiutl, the individual, as we have seen, spends his entire life bargaining

for these titles, and may lay claim to any member of the family. The Kwakiutl adopted the whole system of privileges, and at the same time gave the individual the freedom to compete for prestige, which is contrary to the caste system of the northern tribes; besides, the Kwakiutl retained some of the old customs which they had brought from the south to the coast' [8].

The spheres of life and structure of the first tribal formations may be non-homogeneous, as mental templates continued to be created. The spheres of life and the structure of society become homogeneous with the appearance of writing. It was invented by man. Writing helped to conceptualise the world around him.

Thus, mental templates with value reference formed the model of culture and its value system.

#### 4.2. Language as a Representative of Sacred-value Links Stored in the Mental Template

'If a nation did not make a symbol and a slogan out of blood heredity, we would still be united by common beliefs, social norms, and worldviews - culture as psychological wholeness' [8].

Today, there are some 6,000 languages in the world, whose speakers represent their ways of seeing the world, their value systems, and their culture. Except in some cases, a language may be learnt by being born into a cultural community. Accordingly, one may only understand its value system by being born into it. Thus it becomes obvious that mental templates created in a cultural community are different. Animals, plants, minerals, having no language, possess a complex system of information transmission. According to evolutionary biologists, all organisms inhabiting the planet possess a special type of memory that allows them to transmit information and thus maintain the homeostasis of nature. Consequently, memory is a necessary factor for maintaining integrity and harmony in the natural world. Obviously, language was needed to activate memory processes in the human population. 'Language provides cognitive tools to help recall, communicate, and manipulate concepts that may otherwise be hard to hold in memory. Human languages provide social transmission of information about what categories exist, what belongs to those categories, and what attributes those categories possess' [18]. Memory maintains the homeostasis of the human population and makes it adaptable to the natural world. Thus, the homeostasis of nature is maintained at all its levels.

In such a case, discussions about the origin of language are not so important. In this context, the neurobiological basis of language and its biological phenomenon become clear. Although the properties of the visual sensors in the retina significantly influence the properties of human language [30], it is still able to 'map unproblematically onto perception, cognition, emotion, and social interaction [9]. This suggests that cognitive abilities that are relevant to visual perception or spatial cognition etc. are also attracted to language [30].

'Unlike the communication systems of other organisms, human language is generative; it allows the creation of an infinite number of messages from a finite number of elements. This extraordinarily flexible system has obvious survival value as it is used in the 'cognitive arms race' of competitive feedback loops that involve cooperative interactions' [18].

Since each cultural community creates its own mental patterns and transmits them through language, it is possible that this, according to 'nature's design', creates an informational equilibrium in the nature-human system and ensures homeostasis of the integrity of the natural world ecosystem. Despite such a number of languages, there is still a certain genetic affinity between them, i.e. they originate from the same source. 'Tracing features between lineages has now shown that linguistic features are lineage-specific rather than universal, supporting the view that 'cultural evolution' is the primary factor that determines language structure, with the current state of the linguistic system shaping and constraining future states' [30]. 'Different language communities focus on different aspects of experience, and thus indicate what is important to them. For example, Japanese has a respect system that requires the speaker to define a level of politeness. Quechua has an evidential system for expressing how the narrator learnt something: directly seen or from gossip' [18].

One of the properties of human cognitive ability is the process of constant adaptability to the world around us. The capacity for invention is one aspect of this adaptability. 'Possible inventions are limited by sensorimotor embodiment and human cognition' [30]. One such necessary invention was the emergence of writing. Many modern researchers of ancient writing, notably William Boltz, believe that writing is an invention that formed over a short period of time and is not the end product of some evolutionary process.

The world picture of any cultural community is a clot of ideas formed from sacred-value connections. Although these ideas create a complex mechanism of connections between mental reality and its representation in language, they are not yet conceptualised. Any pre-written (non-written culture) does not have a conceptualised picture of the world. One of the main achievements of writing is that language was able to conceptualise the picture of the world existing in cultures, i.e. to unite the disparate spheres of society's life into one picture of the world. Conceptualisation provided a way of combining a huge amount of information into meaningful blocks. 'Continuous progress may also be seen in the modelling of the intensional-conceptual system that the speaker needs in order to conceptualise the meanings expressed in an utterance, and that the listener needs in order to map the reconstructed meanings back into models of action and models of the world' [30].

Conceptualisation takes place within the framework of value orientations initially set by the mental template. 'In general, languages use two ways of transmitting categories between generations: labels (naming categories, e.g. 'shark' or 'woman') and generics (generalisations of named catego-

ries, e.g. 'sharks attack swimmers' or 'women nurture'). Labels express concepts that have a particular cultural meaning because there are an infinite number of concepts that may be created' [18]. In addition, written language takes on the functions of describing and structuring the value orientations stored in mental templates. Thus, mental templates not only store and represent in language the value orientations created with the help of them, but also at the same time maintain a balance in the psychic field of a person, which creates an opportunity for him to further develop his cognitive abilities. This became possible due to the conceptualisation of a huge amount of information about the world around a person.

The disparate ideas existing in a culture are also conceptualised in the culture's world picture. This allows culture to 'manage' existing ideas. Conceptualised ideas become the prototype of ideology. Ideology is the next step in the invention of society after the emergence of writing. In the first stages of its emergence, ideology fulfilled the role of transmitting the written language to non-written cultures lying within the range of the written culture. This was due to the different needs between cultures in each other's neighbourhood. The first writing culture in a particular area either creates its own writing or integrates it from another culture that has already developed a writing system. This is what happened with Chinese characters. Chinese writing was originally based on cuneiform writing (cuneiform characters) and, if the mother script changes, the subscripts appear after it. But the mental templates created earlier did not change. Only the form of displaying the meanings embedded in these templates has changed. The next step in the development of ideology was the unification of different cultures in the area of existence of written culture. In this case, there is a conceptualisation of the ideas of written culture, which are united into a separate system. This system of ideas is based on the previously created sacred-value system. As a result of such a process, a base is created on which a core value system is formed that absorbs similar value meanings from all cultures within its range. Although written language spread to cultures that were in contact proximity, or were part of one large community, it could not fully conceptualise the value systems already existing in the cultures. Written language was able to absorb such meanings, but it was not able to assimilate or change the mental templates and the value picture of the world of these cultures built on them.

Thus, each cultural community creates its own mental templates and represents them in language. The emergence of writing made it possible to conceptualise a picture of the world while preserving a huge body of knowledge, including ideas. Conceptualised ideas become the prototype of ideology.

## 5. Conclusions

- (1) Cultures of the world differ from each other in the way of worldview and the way they cognise it. For harmonious

coexistence with the surrounding world, culture creates a special mechanism that helps it to overcome its constant variability. The variability of the world does not come from the world as such, as is traditionally believed, but from the work of the human perceptual system. Perceptual filters help to make the uncertain surrounding human reality definite. Culture overcomes this uncertainty through a mechanism that consists of thought-form, thought-image, mental template and language.

- (2) While the first thought-forms may be identical in different cultures, as evidenced by verbs of movement correlated with body space, thought images, mental templates and language structure differ markedly.
- (3) The mental templates are created by image-filled thought-forms and fix 'stimulus-response', which are memorised. The memorised information is fixed in the mental template.
- (4) The mental template contains the value orientations formed at the dawn of a culture, by means of which the sacred-value picture of the world of this culture is created. All subsequent mental events of a person similar to the information already fixed in the mental template are remembered according to the already created mental template. Mental templates are memory cells and are transmitted along the genetic chain.
- (5) In this way culture preserves itself through time. The first mental templates formed a way of seeing the world. The ideas arising in the process of cultural development are subordinated to this way of seeing the world and are subject to processing by mental templates.
- (6) Writing appears in cultures with a wide knowledge resource. One of its functions is to conceptualise a picture of the world and to conceptualise representations of knowledge that are more tightly 'packaged' into existing mental templates. Ideas are also conceptualised. Conceptualised ideas become the prototype of ideology.

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## Author Contributions

Oksana Leontyeva is the sole author. The author read and approved the final manuscript.

## Conflicts of Interest

The author declares that there are no conflicts of interest.

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