

## SUMMARY OF THE ISSUE

### *Theoretical and Empirical Research*

#### **A.S. Odainik. Confidence as a Result of Independent Hypothesis Testing**

The existing psychological approaches to the problem of confidence are analyzed. A short historical review of the studies of confidence is presented, summarizing the existing models of confidence and the experimental effects associated with confidence that emerge during cognitive problem solving. An experimental study is used to show the association between confidence and the probability of repeating a previously given answer. The results are interpreted as after-effects of unconscious choice. Particular attention is paid to the issues of confidence measurement and calibration in psychology.

*Keywords:* confidence, overconfidence, insufficient confidence phenomenon, confidence calibration, unconscious choice after-effects, decision making, cognitive unconscious, consciousness.

### *Facts and Reflections*

#### **E.A. Valueva, D.V. Ushakov. Cultural Relevance and Properties of Intelligence Measures: Testing the Structural-Dynamic Theory**

According to the structural-dynamic theory by D.V. Ushakov, the extent to which different cognitive functions are required within a specific culture results in a certain pattern of distribution of intellectual potential across different types of activity. The study aims to test three predictions of the structural-dynamic theory that concern the most culture-relevant (i.e., most often utilized by individuals and having the highest value within a culture) cognitive abili-

ties: 1) these abilities have the highest loadings on the general intelligence factor; 2) they have the highest genetic determination. An empirical study was done to obtain ratings of the cultural relevance (prevalence and value) of abilities measured by the 12 subtest of the Wexler Adult Intelligence Scale. The ratings were correlated with the existing data concerning the genetic determination of each subtest. The results support the hypotheses: prevalence and value ratings exhibited positive correlations with the subtests' loadings on the g factor and heritability coefficients. Alternative interpretations for the results are discussed.

*Keywords:* structural-dynamic theory, cultural relevance, Wexler Adult Intelligence Scale, heritability.

### *Special Theme of the Issue. Cognitive psychology*

#### **M.E. Bulatova, I.S. Utochkin. Perceiving the Size of Individual Objects in an Ensemble under Focused and Distributed Attention**

While looking at multiple objects, observers are able to extract summary statistics of the set of these objects. At the same time, they still perceive individual items, rather than an abstract statistical feature of the whole set. Our study was aimed at investigating the way perception of an individual object is altered by the ensemble of surrounding objects under focused and distributed attention settings. Observers were presented with sets of 1 to 16 circles of different sizes and were subsequently asked to determine the size of a target circle using a two-alternative forced choice procedure. The target location was either pre-cued, resulting in attention

focus on a particular item, or post-cued, resulting in the distribution of attention across the entire set. We found a strong effect of the context on the individual target size estimation under both focused and distributed attention settings. The effect was stronger in distributed attention condition. Observers tended to «compress» the size of the largest items in ensembles, and this effect was stronger under the distributed attention setting. We explain this effect by the mechanism of feature unification that increases object similarity and facilitates holistic perception of the ensemble. Unification is weaker under focused attention, which permits better processing of individual objects.

*Keywords:* ensemble perception, distributed attention, focused attention, size perception.

**V.F. Spiridonov, S.S. Lifanova. Insight and Mental Operators: Are Step-by-Step Solutions of Insight Tasks Possible?**

This research reports an experimental comparison of two competitive theoretical models providing different explanations of the solution of the 9-dot problem. The first model refers to the notion of insight (abrupt transformation of the way the problem representation is structured, leading to discovery of a solution), the second model postulates a stepwise approach to the problem goal and denies any sudden transformations of the task representation during the solution process. The experimental study focused on mental operators, or procedures that result in the gradual approach to the goal as described in the Problem space theory by A. Newell and H.A. Simon. The results indicate that mental operators do not have the key

importance for the solution process of the 9-dot problem. Some arguments in favour of the classical interpretation of insight were proposed.

*Keywords:* insight, problem-space theory, mental operator, nine-dot problem, hint.

**M.D. Vasilyeva, M.V. Falikman, E.V. Pechenkova, O.V. Fedorova. Subjective Representation of «Morphemic Seams»: An Experimental Study of Russian Nominal Morphology**

An experimental study of subjective representation of «morphemic seams» (the junctions between the words' roots with affixes, including prefixes and suffixes) is presented, using the method of judgment of simultaneity of perceptual events. Different hypotheses about the structure of the «mental lexicon» (a storage of lexical units, words, and their meanings) were compared, suggesting that words are stored in all possible forms, or that they are formed using roots and affixes stored separately. Differences in subjective simultaneity of sequentially presented Russian-language word halves were found between the words split at the morphemic junction and across the root. However, the results were inconclusive concerning the differences between word-forming and word-modifying affixes (prefixes and suffixes).

*Keywords:* psycholinguistics, visual perception of words, simultaneity judgements, word composition, mental lexicon.

**A.A. Kotov, T.N. Kotova. Object Name Pronunciation and the Categorizing Effect of Perception**

Subjects in an experimental study were asked to remember objects associated with

artificial names. The pronunciation of object names led to decrease in the memory performance concerning specific qualities of objects; the same effect was not found for pronunciation of cues concerning object location. The authors discuss the role of words in perceptual categorization.

*Keywords:* categorization, categorizing effect of perception, speech, word, memory.

**D.V. Lyusin, M.S. Permogorskiy.**  
**Recognition of Emotional Tone of Information: The Problem of Universality**

The aim of the study was to find out the extent of universality of perception of the emotional tone of information for three types of stimulus material: human behavior, music, and non-musical auditory stimuli. A distinction between two aspects of emotional tone perception was proposed: accuracy of evaluation of its modality and sensitivity to its intensity. Methods to measure these two aspects were developed for three types of stimulus material. The hypothesis was proposed that sensitivity is more universal, whereas intensity is more specific regarding the type of stimuli. Empirical evidence in support of the hypothesis was found.

*Keywords:* emotional perception, emotional tone of information, emotional intelligence.

**S.R. Yagolkovsky. Creative Activity within the Innovative Process: Cognitive and Group Aspects**

The paper is focused on the problem of human creativity within the process of innovation. The most important determinants of the efficacy of different stages of the innovative process are analyzed, as well as their associations.

Particular attention is paid to the analysis of process and outcome properties of group creative activity, which involves new idea production, as well as idea improvement and practical implementation. Empirical studies of productive thinking at different stages of the innovative process are described.

*Keywords:* creativity, creative activity, innovativeness, group creativity.

**Personology**

**I.A. Pogodin. A Dialogical Phenomenological Model of Thinking: Resources of Primary Experience**

The article presents an analysis of the phenomenon of thought and the process of thinking as bases of field dynamics (in the context of Gestalt therapeutic theory). The author proposes a distinction between the notions of thought and concept. Thought refers to risk and courage to be in the space of primary experience, whereas concept emerges in the field by means of translation of phenomena. The enormous resources comprised by primary experience for the thinking process are described. Specific attention is given to the dynamics of thinking within the etiology of «madness».

*Keywords:* thought, concept, primary experience, self paradigm, madness, divided and non-divided reality, creative and adaptive vectors of experience.

**Positive Psychology**

**T.Yu. Ivanova. Conservation of Resources Theory as an Explanatory Model of Stress Development**

The paper presents the Conservation of Resources theory by Steven Hobfoll, describing its principles, and

discussing its value for research and practice. The results of a number of empirical studies based on this theory that focused on the consequences of stressful events are summarized. The author discusses the advantages and limitations of the theory and suggests directions for future research.

*Keywords:* resources, resource pool, conservation of resources, loss, gain, stress, coping.

### ***Practical Psychology***

#### **A.V. Rossokhin. Inner Power of the Leader**

The paper presents a new theory of leadership based in psychoanalytic understanding of professional development. It is impossible to become a mature leader in the reality of the outside world without the inner maturity and constant development of the I. The author gives a detailed description of the psychoanalytic dynamics of inner leadership and shows that inevitable inner conflicts are not obstacles for professional growth of leaders, but serve as conditions for emergence and development of their mature I. The latter assumes the function of director within the leader's inner theatre, where an unavoidable interaction and conflict between two principal actors, leader as a manager and leader as a hero, take place and develops a constructive inner dialogue between the two.

*Keywords:* psychoanalysis, leadership, unconscious, inner dialogue,

management, organization, inner conflict, counseling, coaching, business psychology.

### ***Reviews***

#### **A.A. Bochaver, K.D. Khlomov. Bullying as a Research Object and a Cultural Phenomenon**

The paper reviews the present achievements in school harassment (bullying) research. The authors discuss the role of social context in the genesis of bullying and demonstrate the necessity for development of Russian-language bullying research instruments and bullying prevention technologies.

*Keywords:* harassment, bullying, victim, perpetrator, witnesses, school, teenagers.

#### **M.R. Khachaturova. Coping Repertoire of Personality: A Review**

The article is dedicated to problem of coping repertoire of personality. A comparative psychological analysis of coping strategy classifications created by foreign scientists is presented, paying particular attention to the systematization of coping behavior strategies proposed by E. Skinner. The issues of effectiveness of coping behavior and dispositional vs. situational aspects of coping strategies are discussed. An overview of existing methods for psychological assessment of coping behavior is also given.

*Keywords:* coping, coping repertoire, coping strategy classifications, coping behavior assessment methods.