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Viktoras Keturakis

COGNITIVE STYLE AND DEPRESSION: ANALYSIS OF COGNITIVE
VULNERABILITY FACTORS

Summary of doctoral dissertation

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Scientific supervisor:

Prof. emeritus Habil. dr. Vytautas J. Bieliauskas (Xavier University, Cincinnati USA, social science, psychology – 06 S)

Supervisor:

Assoc. prof. dr. Rasa Bieliauskaitė (Vilnius University, social science, psychology – 06 S)

Council of Psychology trend

Chairwoman

Prof. habil.dr. Danutė Gailienė (Vilnius University, social science, psychology – 06 S)

Members:

Assoc. prof. dr. Rūta Sargautytė (Vilnius University, social science, psychology – 06 S)

Assoc. prof. dr. Nida Žemaitienė (Kaunas University of Medicine, social science, psychology – 06 S)

Assoc. prof. dr. Liuda Šinkariova (Vytautas Magnus University, biomedical science, medicine 07B)

Assoc. prof. dr. Arūnas Germanavičius (Vilnius University, biomedical science, medicine-07B)

Opponents:

Assoc. prof. dr. Gražina Gudaitė (Vilnius University, social science, psychology – 06S)

Prof. habil.dr. Rimantas Želvys (Vilnius Pedagogical University, social science, educology – 07S)

The official defence of the dissertation will be held at 1 p.m. June 29, 2007 at the public session of the Council of Psychology Trend in the Conference Hall (Universiteto str. 9/1, room No. 201) of the Faculty of Philosophy of Vilnius University.

Address: Universiteto str. 9/1, 01513 Vilnius, Lithuania

Phone. (370 5) 2667606, ph./fax. (370 5)2667600, e-mail: fsf@fsf.vu.lt

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Viktoras Keturakis

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Mokslinis konsultantas:

prof. emeritus habil. dr. Vytautas J. Bieliauskas (Xavier University, Cincinnati USA, (JAV), socialiniai mokslai, psichologija – 06 S)

Konsultantė:

doc.dr. Rasa Bieliauskaitė (Vilniaus Universitetas, socialiniai mokslai, psichologija – 06 S)

Disertacija ginama Vilniaus Universiteto Psichologijos mokslo krypties taryboje

Pirmininkė

Prof. habil.dr. Danutė Gailienė (Vilniaus universitetas, socialiniai mokslai, psichologija – 06S)

Nariai:

Doc. dr. Rūta Sargautytė (Vilniaus universitetas, socialiniai mokslai, psichologija – 06S)

Doc. dr. Nida Žemaitienė (Kauno Medicinos Universitetas, socialiniai mokslai, psichologija – 06S)

Doc. dr. Liuda Šinkariova (Vytauto Didžiojo Universitetas, biomedicinos mokslai, medicina 07B)

Doc. dr. Arūnas Germanavičius (Vilniaus universitetas, biomedicinos mokslai, medicina -07B)

Oponentai:

Doc. dr. Gražina Gudaitė (Vilniaus universitetas, socialiniai mokslai, psichologija – 06S)

Prof. habil.dr. Rimantas Želvys (Vilniaus pedagoginis universitetas, socialiniai mokslai, edukologija – 07S)

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Adresas: Universiteto g. 9/1, 01513 Vilnius, Lietuva

Tel. (370 5) 266 7606, tel./faks. (370 5) 266 7600, el. paštas: fsf@fsf.vu.lt

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INTRODUCTION

Upon review of the problems and studies in cognitive therapy of the recent decade we distinguished the following tendencies:

- The author of the cognitive therapy model A. Beck includes personality features into his model by describing sociotropy and autonomy (Beck 2005).
- Cognitive therapy expanded its field of study studying new phenomena such as mindfulness (Segal et al. 2002) and cognitive processes such as memory and attention (Clark et al. 1999).
- Scientists say that judgmental terminology of cognitive therapy and its concept should change and become an approach that accepts and validates a person (Hayes 2002).
- The cognitive therapy researches emphasize significance of cognitive model of psychopathology and cognitive theory of change, not only intervention methods and learning new skills (Whisman 1999).

Cognitive therapy claims that it provides skills to their patients that help to correct disordered cognitions and solve real-life problems. In this way cognitive therapy is related to learning and teaching. Analyzing individual features of a student and teacher, learning and teaching psychology widely uses the concept of a cognitive style. The theory of cognitive therapy could successfully adopt the teaching psychology experience of colleagues and adapt field dependent-independent cognitive style concept.

Studies of field independence as cognitive style related to cognitive psychopathology could be valid step in cognitive therapy studies considering the above mentioned tendencies because:

- it would enable to look for possibilities in differentiating people suffering from depression according to their cognitive-personality features;
- it would be possible to expand and develop cognitive style theory with the concept of field dependence;
- it would be possible to change judgmental concepts of cognitive therapy: in addition to the category of negative thinking use more neutral field dependence-independence style concept;

•it would develop preconditions enabling to specify models of cognitive vulnerability to depression.

Historically and conceptually depressions are closely related to a cognitive therapy model. Therefore, we would suggest starting scientific study provided in this thesis with analysis of depressions. This would enable to define the field of study and draw distinct conclusions.

The Research Aim

The aim of this study is to analyze factors relating to cognitive vulnerability to depression in field dependent and field independent people.

The Main Research Tasks

- 1) To test for cognitive style: field dependent-independent:
 - a) Determine the relationship of cognitive restructuring with cognitive structuring of a new undetermined situation;
- 2) To determine the relationship of depression with field dependence-independence.
 - a) Compare field dependence-independence of the clinically depressed and the non-depressed.
 - b) Compare the level of depression of field dependent and independent people.
- 3) To determine the relationship of the cognitive factors of depression with field dependence-independence.
 - a) Compare sociotropy and autonomy between the clinically depressed and non - depressed in relation to the field dependence factor.
 - b) Compare explanatory style of the clinically depressed with the non- depressed in relation to the field dependence factor.

In regard to the aim and tasks provided above we set the following hypotheses:

The theses defended in this dissertation:

1. Cognitive restructuring and cognitive structuring of a new situation are positively correlated.
2. There is no difference in abilities of cognitive restructuring and cognitive structuring of a new situation between the clinically depressed and non-depressed.
3. Cognitive restructuring and structuring of a new situation and state of depression are negatively correlated.
4. Cognitive restructuring abilities are not related neither to personality orientation toward independence (autonomy) nor orientation toward good interpersonal relationship (sociotropy) between both, the clinically depressed and non-depressed.
5. The clinically depressed unlike non-depressed show a preference to explain negative events by more internal, stable and global causes.
6. Explanatory style for negative events as a vulnerability factor to depression is related to field dependence cognitive style:
 - a. A tendency of those clinically depressed compared to non-depressed to give internal, stable and global explanations for negative events was observed only among field independent people.
 - b. Field independent clinically depressed people as compared to non- depressed showed preference to internal and global explanations for negative events.
 - c. The field dependent clinically depressed people as compared to non-depressed showed preference to stable explanations for negative events.
7. Updated concept of cognitive field dependence expands possibilities to differentiate people in depression by their characteristic ways in information processing and elaborate on cognitive vulnerability factors for depression.

Research methodology

Participants and design

110 participants took part in the study. The participants were from Mental Health Centers, Labor Exchange Training Center, a secondary school and local community center. 98 protocols were analyzed: the experimental group was comprised of 46 participants and the control group - 52.

More women than men participated in the study; more participants were from urban areas. There were fewer participants with secondary or uncompleted secondary education than high or higher education. The average age of the participants was 39.81 years when $S=12$.

The participant sample for the study corresponds to the ratio of men and women within the population of Lithuania in 2000 as well as distribution according to age, from 20 to 67 years and according to residence. In the sample there were more unemployed participants (35.5%) than in the general population (11.5%) (Lithuanian Department of Statistics, www.std.lt).

Participants with clinical depression made up the experimental group. Participants in the control group were selected to balance the experimental group according to gender, educational factor, social status and place of residence (city - rural area).

For the experimental group an exclusion criterion was psychotic and organic brain disorders. The following diagnoses were also exclusion criteria: bipolar affective disorder, current episode mixed, social phobia, mixed anxiety-depression syndrome, hypertonia, adaptation disorder when mixed anxiety-depression episode is observed, schizotypal disorder and depressive type schizoaffective disorder as they did not meet the criteria for clinical depression. Experimental group participants included in the study had one of the following diagnoses: bipolar affective disorder, severe depression episode without psychotic symptoms; mild, moderate and severe depression without psychotic symptoms, recurrent depression moderate or severe episode without psychotic symptoms, adaptation

disorder with short term or long term depressive reaction, personality disorders (dependent type, hysterical type, mixed type) with mild, moderate depressive disorder

Measurement

Group embedded figures test

Group Embedded Figures Test (GEFT) (Witkin et al. 1962) was used to assess cognitive restructuring abilities as the indication of field independence cognitive style. Each out of 18 tasks is a complex figure where a simple embedded geometrical figure is hidden and is to be outlined by a participant. The number of correctly executed tasks is the primary score. The higher the score the less field dependent participant is considered. Validity of the split-test of GEFT fluctuates between 0.8 and 0.9 and correlations of the repeated administrations is from 0.6 to 0.8 (Kagan and Kogan 1970). GEFT correlated to the scores of Raven standard progressive matrices $r=0.3$ ($p<0.05$) (Keturakis 2005). Group Embedded Figures Test complies with the requirements of reliability and validity and could be used in the study.

Cognitive style assessment of house-tree-person drawing (by V.Bieliauskas)

Cognitive style evaluation system introduced by V. Bieliauskas is based on well-defined evaluation rules and criteria to assess house-tree-person drawings (Bieliauskas 1981). All three drawings are scored from 1 to 9: 9 - highest score, 1 - lowest score. Cognitive style quotient is calculated by adding the three scores for the pictures and its numerical representation can be from 3 to 27. Reliability calculations indicated Cronbach $\alpha =0.83$. Primary experts' evaluation agreement was α^1 (5) - 0.89. After the training experts' evaluation agreement was α^2 (6) – 0.92. Cognitive style assessment system according to the drawings of a house, tree and person comply with the validity requirements and can be used in our study.

J.Raven standard progressive matrices test (SPM)

Raven standard progressive matrices (SPM) test can be described as an “observation and clear thinking test” (Raven et al. 1988, 57). A task is to complete matrices where a picture is composed. The person is asked to find which sample of the ones given fits into empty spaces of the squares. The aggregate score can be from 0 to 60. Validity of the answers sheet is evaluated. Internal consistency index is α -0.88 (n=158), split-half coefficient is α - 0.9 (n=158). Correlation between Raven SPM and Wechsler Adult Intelligence Scales (WAIS) has not been unambiguously validated (Raven et al. 1998). Raven standard progressive matrices (SPM) test is a valid and reliable method that is suitable to be used in our study.

Beck Depression Inventory I

Beck depression inventory is used in the study (Beck et al. 1961 in Williams 1992). The inventory consists of 21 groups of statements about the main symptoms of depression. The sum of the chosen statement numbers is calculated as depression score. Translation of Beck depression inventory into Lithuanian (Domanskienė 1991) was approved at the meeting of LPA Psychodiagnostic Board Experts on 28/05/1992 (Protocol No.10). Reliability estimations made were internal consistency Cronbach α -0.9, split-half Gutman coefficient α -0.84. Lithuanian version of Beck depression inventory is a reliable and valid method that is suitable to be used in our study.

Sociotropy-Autonomy Scale

The scale consists of 60 statements that participants use for their self-evaluation. Scores of autonomy and sociotropy are calculated with the help of given keys. Two independent translations were compared and the discrepancies were corrected. The scale has a good reliability index: indexes of sociotropy and autonomy were respectively 0.9 and 0.83 (Beck et al. 1983). Reliability of a Lithuanian version evaluation was as follow: sociotropy scale α_s -0.88, autonomy scale - α_a -0.8. Lithuanian version of sociotropy-autonomy scale is a reliable and valid method that is suitable to be used in our study.

Attribution Style Questionnaire

Attribution Style Questionnaire is a self report instrument that yields scores for the explanatory style of bad and good events using three dimensions: internal versus external, stable versus unstable and global versus specific causes. The composite ASQ scores designed for determination of explanatory style: composite negative score, i.e., explanation of negative events using internal, stable and global explanations; composite positive score, i.e., explanation of positive events using internal, stable and global explanations; difference score, i.e., difference between composite positive and negative scores (Peterson et al. 1982). Two independent translations were compared and the discrepancies were corrected. Reliability of a Lithuanian version of a negative explanatory was $\alpha_n = 0.69$ (n=80), common positive explanatory - $\alpha_t = 0.58$ (n=81) (Keturakis 2002). Internality reliability of the Lithuanian version is $\alpha = 0.34$; consistency - $\alpha = 0.47$; generality (universality) $\alpha = 0.52$ (n=153). Construct validity of the Lithuanian version of attribution style questionnaire was supported elsewhere (Keturakis 2002). Lithuanian version of attribution style questionnaire is reliable and valid and is suitable to be used in our study.

Scientific novelty of the doctoral dissertation

- ◆ Conceptual modifications defining cognitive style are performed by confining the field dependence-independence to information processing model as compared to personality model.
- ◆ A cognitive style assessment system using house-tree-person drawings was applied for measurement of field dependence-independence as cognitive style and correlated to recognized field dependence measure - group embedded figures test.
- ◆ New tendency in cognitive theory of psychopathology is to differentiate relationship of cognitive factors and depression as disorder or trait-like condition and depression as mood or state-like condition. Our study contributes to this new development of cognitive theory of psychopathology:

- ◆ Upon comparison of correlations between field dependence style and depression disorder and field dependence style and depressive mood it was determined that the above mentioned style was not related to depression disorder but was related to the state of depression.
- ◆ A correlation between negative event explanatory style as a cognitive vulnerability factor of depression and field dependence cognitive style was determined.
 - ◆ Clinically depressed have a tendency to explain negative events preferring internal, stable and global causes. This tendency was observed only for field independent people.

Approbation of the research results

This study has been considered and approved by the Department of Clinical and Organizational Psychology at Vilnius University.

The dissertation theses and research material was presented by the author at two scientific conferences.

- 1 The open paper “Cognitive style of Depression” presented at 29th annual conference of British Association for Behavioral and Cognitive Psychotherapies 21st June, 2001.
- 2 The open paper “Assessment possibilities for field independence cognitive style” presented at IVth Annual Conference of Young Psychology Researchers, Psychology Research in Lithuania, Place in The World and Vision for Future, 27th April, 2007.

Structure of the dissertation

This dissertation consists of an introduction where major definitions, defended theses and study motivation are presented. Research review, literature analysis and problem definition is completed in five parts. The main aim of the study, the main tasks and hypotheses are summarized at the end of this chapter. The following chapters are research methodology, results and discussion of results. It closes with conclusions, a bibliography and annexes.

CONTENT SUMMARY OF THE DISSERTATION

The first part of the Research review chapter of the dissertation titled ‘**The cognitive concept of the psychopathology of depression**’ discusses cognitive theory of personality and depressive psychopathology as an important constituent part of cognitive therapy of depression.

The cognitive model of depression was replenished with evidence that negatively biased the secondary stage of information processing – primary coding and elaboration is typical for depression. The analysis of cognitive schema distortions related to depression revealed that:

- A negative explanatory style is related to vulnerability to depression (Alloy 1992, Abramson et. al. 1997).
- Assumptions about sociotropy and autonomy as schemes related to vulnerability to depression have not yet found general empirical acceptance. (Bieling et. al. 2000; Beck 2005).

The terms of cognitive concept are defined more precisely and vigorously, cognitive functioning is differentiated by applying specific concepts such as cognitive structure, cognitive process and cognitive product. Depression is analyzed as both a cognitively and a clinically heterogeneous phenomenon (Abramson et al. 1997). The importance of information processing associated with emotional processes and their disturbances are

emphasized. Individual cognitive differences become more important in the psychopathology models of depressions.

“It seems likely that future advances in our understanding of emotional vulnerability will be accompanied by the further delineation of the cognitive profiles associated with each distinctive pattern of emotional pathology.” (Mathews and MacLeod 2005; 188). The cognitive style could illustrate such profile associated with depression and could become a framework for the study of the individual idiosyncrasies of depressed persons.

The second part of the Research review chapter “**The concept of cognitive style field dependence-independence as cognitive personality factor**” reviews historical, conceptual, definitional issues of the cognitive style in general and field dependence independence, in particular. Cognitive style studies indicated an important turn in cognitive psychology, studying not only the variables of cognitive content but cognitive processes, too. Cognitive style is a higher level cognitive process that is stable over time and is pervasive throughout various spheres of personal functioning – perceptive, intellectual and social-adaptive (Witkin, Goodenough 1981; Messick 1984). Field dependence-independence is a widely studied cognitive style, recognized and criticized. Field dependence-independence is a tendency to be dependent or independent from the external context and social environment while processing information.

The problem in field dependence theory is insufficiently proved relation between cognitive restructuring, self- concept and ego defense mechanisms. H. Witkin, as the author of field dependence theory, proposed that there is a general tendency, called autonomy from external referents or psychological differentiation, which is embedded in personality and manifests itself through various cognitive activities such as cognitive restructuring and perception of verticality. The theory of field dependence is promising, however, if it can describe general cognitive processes-mechanisms through which autonomy operates. The approach that the personality contains a construct-style that has impact on other personality spheres should be changed into a concept about the profile of cognitive processes specific abilities, preferred ways of adaptation by mood regulation and adaptation to the environment.

Table 1. Comparison of personality and information processing models applied to field dependence-independence

Field dependence-independence				Theoretical model
<i>Cognitive restructuring</i>	<i>Sense of separate identity (self-differentiation)</i>	<i>Articulated body concept</i>	<i>Structured impulse controls defenses</i>	
Analyses	Analyses	Analyses	Analyses	Personality models
Analyses	----	----	----	I n f o r m a t i o n processing models

According to information processing models cognitive restructuring is interpreted as:

- structuring of a new uncertain situation,
- restructuring by changing the existing structure and organization of stimulus.

The third part of the Research review chapter “**Cognitive field dependence-independence and the cognitive concept of depressions**” reviews correlation of field dependence cognitive style and depression.

Field dependent and independent people do not differ in their adaptive skills. Whereas some of them are able to adjust by cognitive restructuring and relying on their own judgment, others can find support in the environment (Witkin, Goodenough 1981). Both field dependent and independent people may have the same risk for adaptation disorders and depression. The studies show controversial results and conclusions. In one study people suffering from depression were more field dependent than healthy people (Kingsland, Greene 1984). However, another study showed that among people suffering from depression there were both field dependent and independent subjects (MacGillivray, Baron 1994). MacGillivray, Baron (ibid) also found that the distortion of cognitive processes of field dependent and independent people was different.

Persistent rumination, turning one’s attention towards symptoms of disorder and the causes and consequences of those symptoms are observed during depression (Nolen-Hoeksema 1991). A person becomes cognitively stuck with the same cognitive operations. This type of consideration is related to depression, resistance to recovery and the danger of recurrent

depression. Field independence correlations with the ability to restructure information (Witkin, Goodenough 1981), with divergent thinking (Bahar 2000), with fluid intelligence as ability to solve new problems (Gardner, Sternberg 1994) can mean that field independent people and people suffering from depression are less prone to persistent ruminations about their condition unlike those who are field dependent.

It has been determined that people who tend to give stable, global and internal explanations to negative outcomes of events, were prone to the onset, relapse or recurrence of depression (Abramson et al. 1995). The tendency to a global conception of experience is typical of field dependent people while field independent people tend to look for specific cues inside themselves. Obviously, a rigidity of explanation is very important when it is applied to one or almost all problematic situations. This rigidity is related to field dependence and an inability to restructure information and difficulty in changing the explanatory style.

Field dependent and independent people have the same risk of vulnerability to depression. This is related to a tendency to activate specific schemas or knowledge models about themselves. We should seek empirical confirmation as to whether these schemas are different for field dependent and field independent people. We could correlate H. Witkin's ideas about interpersonal orientation of field dependent people and the socially distant behavior of field independent people with A. Beck's concept of sociotropy and autonomy. However, in the behavior of healthy people sociotropy and autonomy schemas can be inactive and may not appear in the study. Sociotropy and autonomy schemas are only activated in case of depression. It follows that they should operate in the course of the study and may relate to field dependence-independence.

The event that evokes depression in field dependent people could be one of low intensity related to significant (particularly social) circumstances. If a field dependent person is already in a negative emotional condition, a wry smile from a person who is important to him is enough to trigger for cognitive distortions. A more intensive event may be needed to a person who is field independent to evoke cognitive distortions

related to vulnerability to depression. This could be, for example, violence or a less intensive event from an important source, e.g. an unfavorable decision by the referee during some sporting event.

Field dependent and independent people would differ in the deterioration of the condition or the risk of recurrent depression. The cognitive problem related to depressions is the “stuckness” of a disturbed processes i.e., situations when cognitive control processes are unable to suppress dominating distortions. This is typical of field dependent people. Field independent people can restructure their experience and change their perception of both their experience and of the environment. Therefore, we would think that clinically depressed field dependent people would use a stable, internal and global explanatory style in relation to important negative events more often than people who are field independent.

Contemporary cognitive theory of depression studies the characteristics of cognitive processes. The cognitive model takes a strong dimensional perspective on depression assuming that psychopathological states represent extreme or excessive forms of normal cognitive, emotional, and behavioral functioning. (Clark et al. 1999; 22). Field dependence-independence is a promising approach to the normal cognitive differences of people that can reach extreme forms in depression.

Summary of major findings

Field dependence-independence reliably correlates cognitive restructuring and cognitive structuring of a new situation when $r_c(51) = 0,56$ for controls and $r_e(45) = 0,41$ for experimental group both $p < 0,01$ (See Figure 1). This corresponds to the data which validates that subjects of the study who are field dependent are more successful in performance of different tasks when they are given a structure which helps to accept information and reproduce it. Field independent people are more successful in performing tasks when they can provide structure to the material by themselves (Bahar 2000; Kahtz et al. 1999). However, other studies do not validate this assumption about different preferences of field dependent and independent people in respect of structured

material (Price 2004). Cognitive restructuring and cognitive structuring of a new situation are significantly interrelated controlling effect of analytic ability factor in control group $r_k=0,49$ when $p<0.05$ and experimental group $r_e=0.28$ when $p<0.05$. This complies with the view of other authors that field dependence-independence can not be identified with analytic abilities, though it is certainly related to them (Vernon 1972, Messick 1994).

There is no difference of cognitive restructuring abilities between clinically depressed and non-depressed when $F(94)= 0.11$; $p>0.05$ according to ANOVA model. This result matches to the presumption that field dependence and independence styles are equally adaptive (Witkin, Goodenough 1981 and Messick 1994). However, this statement contradicts the study which has determined that global non-differentiated (field dependent) cognitive style is significantly more related to depression than differentiated field independent style (Kingsland, Greene 1984). We should note that this study was conducted only with women. Besides, it was conducted using only the embedded figures method.

Analytical abilities as assessed by Raven SPM differ between experimental and control groups (see Figure 1).

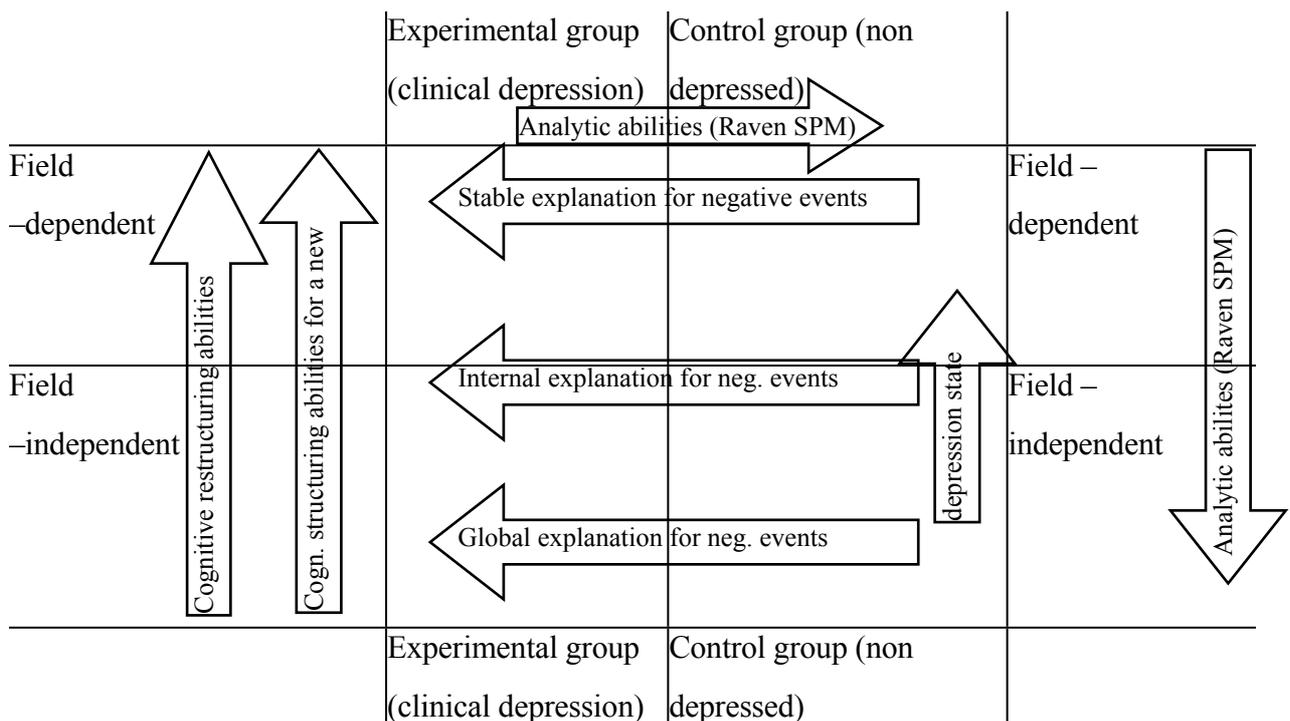


Figure1 Significant differences of cognitive style, analytical abilities and explanatory style in experimental groups, control groups and field dependent and independent sub-groups

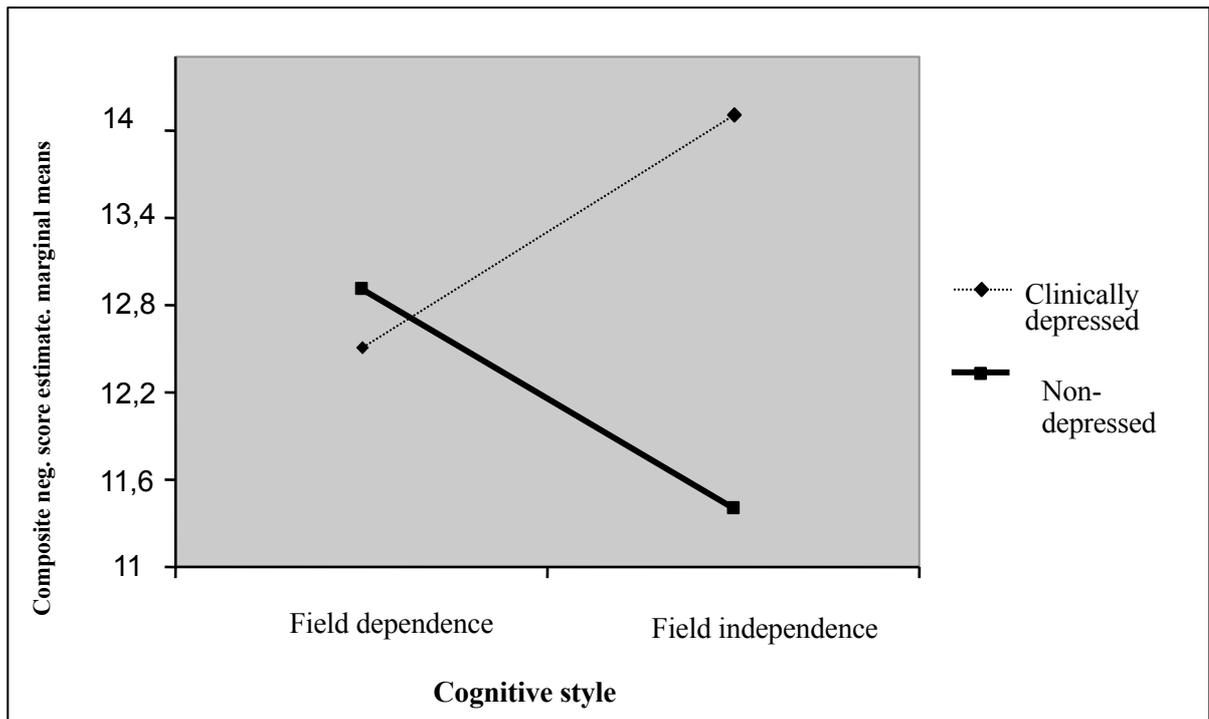
Cognitive restructuring and cognitive structuring of new situation abilities and state of depression assessed by Beck Depression Inventory are significantly negatively correlated in control group when respectively $r_g = -0.49$ ($n=50$, $p < 0.01$) and $r_k = -0.29$ ($n=51$, $p < 0.05$). In experimental group depressive mood was not related neither of cognitive restructuring nor to cognitive structuring of a new situation when $p > 0.05$. When depression scores of field dependent and independent participants in the control group were compared significance differences were detected when $t(45) = 3.67$, $p < 0.01$. These results are in contrast to the conclusions of other studies which show that there was no difference between depression symptoms of field dependent and independent people (MacGillivray, Baron 1994). Our conclusions comply with the conclusions of some other studies- field dependent women infected with human immunodeficiency virus (HIV) tended to be more depressed than the ones who were field independent (Giovanola 2001).

So, field dependence-independence is related to mood disturbance and depression as a state and is not related to depression as a trait. This means that depression disorder can not be related to field dependence-independence as a separate cognitive factor and hardly may single cognitive mechanism presumed. This confirms to the statement of other authors that cognitive processes can be related to state-like disturbance of mood and health (Williams et al. 1997). On the other hand, field dependent people are more vulnerable to depression disorder not only because of specific cognitive processes but because they are related to depression as state which is a considerable triggering factor of the disorder and one possible cause of depression (Segal et al. 2002). This means that the field independent clinically depressed may have greater recovery rate and lower relapse rates compared with the field dependent clinically depressed. We think that the former may be more resistant to biased thinking – persistent ruminations of bad consequences of their condition.

Clinical depression is not correlated with personality orientation toward autonomy and interpersonal relationships accordingly to sociotropy-autonomy model (see Figure 1).

Only composite negative score indicating preference for stable, internal and global explanations for negative events differed significantly between clinically depressed and non- depressed. This difference was observed only among field independent participants.

(Figure 2) Field dependent participants were significantly more depressed than field independent ones.



Limitations of the study

The following methodological limitations of the study are noted:

1. Both methods used to measure field dependence-independence evaluate field independence. Field dependence was assumed as the absence of field independence with lower scores of the tests. Some researchers criticize this asymmetry of evaluation (Vernon 1972, Riding, Cheema 1991, Messick 1994).
2. In our study we chose clinical depression factor as an independent variable which was assigned by the medical doctors and could be stipulated applying different diagnostic criteria.

3. Intergroup comparison analysis design does not allow establishing the stability of variables observed. Repeated observation of the same person would enable discovering if their measured characteristics are stable over time.
4. People of so-called flexible or mobile style with characteristics of both field dependence and field independence were not analyzed.

The following **recommendations for further studies** are discussed:

1. The importance to validate conclusions of the study using greater number of observations.
2. Include so-called mobile, flexible style people who do not have constant field dependence or independence.
3. Specify methods of the study:
 - a) In the studies of field dependence-independence it is recommended to additionally use a method which would determine field dependence based on a positive score.
 - b) Confirm validity of the sociotropy and autonomy; provide theoretically defined subscales with the help of factorial analysis.

CONCLUSIONS

1. Cognitive restructuring and cognitive structuring of a new situation are positively related.
2. There is no difference in abilities of cognitive restructuring and cognitive structuring of a new situation between clinically depressed and non-depressed.
3. Cognitive restructuring and structuring of a new situation and state of depression are negatively correlated.

4. Cognitive restructuring abilities are not related neither to personality orientation toward independence (autonomy) nor orientation toward good interpersonal relationship (sociotropy) neither among clinically depressed and non-depressed.
5. Clinically depressed unlike non -depressed show a preference to explain negative events by more internal, stable and global causes.
6. Explanatory style for negative events as a vulnerability factor to depression is related to field-dependence cognitive style:
 - a. A tendency of those clinically depressed compared to non- depressed to give internal, stable and global explanations for negative events was observed only among field independent people.
 - b. Field independent clinically depressed people as compared with non-depressed showed preference for internal and global explanations for negative events.
 - c. Field dependent clinically depressed people as compared with non- depressed showed preference stable explanations for negative events.
7. Updated concept of cognitive field dependence expands possibilities to differentiate people in depression by their characteristic ways in information processing and elaborate on cognitive vulnerability factors for depression.

REFERENCES

- Abramson L.Y., Alloy L.B., Metalsky G.L. Hopelessness Depression. In G.M.Buchanan, M.E.P.Seligman (Eds.) *Explanatory Style*. Hillsdale: Lawrence Erlbaum. 1995. p. 113-134.
- Abramson L.Y., Alloy L.B., Hogan M.E. Cognitive/Personality Subtypes of Depression: Theories in Search of Disorders// *Cognitive Therapy and Research*. 1997, 21(3), p. 247-265.
- Alloy L.B., Lipman A. J., Abramson L.Y. Attributional style as a vulnerability factor for depression: Validation by past history of mood disorders. // *Cognitive Therapy and Research*. 1992. 16. p.391–407.
- Bahar M. The Relationship Between Some Psychological Factors and their Effect on the Performance of Grid Questions and Word Association Tests. // *Educational Psychology*. 2000. 20 (3). p.349-355.
- Beck A., Epstein N., Harrison R., Emery G. Development of the Sociotropy-Autonomy Scale: A measure of personality factors in psychopathology. 1983. Unpublished Figure 2. Comparison of composite negative score between experimental and control groups applied separately for field dependent and field independent samples. manuscript, University of Pennsylvania, Philadelphia.
- Beck A.T., The current state of cognitive therapy: a 40-year retrospective. // *Arch. Gen. Psychiatry*. 2005. 62(9). p.953-959.
- Bieliauskas V.J. Cognitive Style Scoring System for the H-T-P Drawing. Cincinnati, Ohio: Xavier University Press. 1981
- Bieling P., Beck A., Brown G. The Sociotropy Autonomy Scale: Structure and Implications. // *Cognitive Therapy and Research*. 2000. 24 (6):763-780.
- Clark D.A., Beck A.T., Alford B.A. Scientific Foundations of Cognitive Theory and Therapy of Depression. NY: John Wiley & Sons; 1999. p504.

- Domaskienė V. Bandžiusių žudytis žmonių socialinė ir psichologinė charakteristika. (Social and psychological characteristics of parasuicide (in Lithuanian) Diplominis darbas. Vilnius 1991.
- Gardner M.K., Sternberg R.J. Novelty and Intelligence. // In R.J.Sternberg & R.K.Wagner (Eds.), *Mind In Context*. Cambridge University Press. 1994. p. 38-73
- Giovanola S. Psychological differentiation, depression, and patterns of coping with stress in HIV-positive mothers (Immune deficiency) (dissertation), Columbia University, 2001
- Hayes S.C. Acceptance, mindfulness, and science. // *Clinical Psychology: Science and Practice*. 2002. 9. p.101–106.
- Kagan, J., Kogan N. Individual Variation in Cognitive Processes. P.Mussen (Ed.), *Carmichaels Manual of Child Psychology*. N.Y.: Wiley.1970. 1. p.1273-1353.
- Kahtz, A.W., Kling G.J. Field-Dependent And Field-Independent Conceptualisations Of Various Instructional Methods With An Emphasis On CAI: A Qualitative Analysis.// *Educational Psychology*. 1999. 19 (4) p. 413-426
- Keturakis V. The Attribution Style Questionnaire (Lithuanian version): Adaptation Study Comparing Depressed with Nondepressed Participants. // *Baltic Journal of Psychology*. 2002. 3(1). p. 55-62.
- Keturakis V. Priklausomų bei nepriklausomų nuo lauko studentų analitinių gebėjimų ypatumai. // *Ugdymo psichologija*. 2005. 14. p. 38-44.
- Kingsland C.R., Greene L.R., Psychological differentiation and clinical depression. // *Cognitive Therapy and Research*. 1984. 8 (6). P.599-605.
- MacGillivray R.C., Baron P. The Influence of Cognitive Processing Style on Cognitive Distortion In Clinical Depression // *Social Behavior and Personality*. 1994. 22. p. 145-156
- Messick S. The matter of style: Manifestations of personality in cognition, learning, and teaching // *Educational Psychologist* 1994. 29(3) p.121-136
- Messick S. The nature of cognitive styles: Problems and promise in educational practice. // *Educational Psychology*. 1984. 19 p. 59–74.

- Price L. Individual Differences in Learning: Cognitive control, cognitive style, and learning style // *Educational Psychology*. 2004. 24 (5). p.681-698
- Raven J., Raven J.C., Court J.H. Manual for Raven's Progressive Matrices and Vocabulary Scales. Oxford: Oxford Psychologists Press Ltd. 1998.
- Riding R., Cheema I. Cognitive styles - an overview and integration. // *Educational Psychology*. 1991. 11(3-4). p.193-215.
- Segal Z.V., Williams J.M.G., Teasdale J.D. Mindfulness-Based Cognitive Therapy for Depression. New York: The Guilford Press; 2002. p.351
- Whisman M.A. The Importance of the Cognitive Theory of Change in Cognitive Therapy of Depression. // *Clinical Psychology: Science and Practice* 1999, 6, p. 300-304
- Williams J.M.G. The Psychological Treatment of Depression. London. Routledge. 1992, p. 231
- Williams J.M.G., Watts F.N., MacLeod C., Mathews A., Cognitive psychology and emotional disorders. Chichester: Wiley. 1997, p.402
- Witkin H.A., Goodenough D.R. Cognitive styles: Essence and origins. N.Y. International Universities Press. 1981, p.143
- Witkin H.A., Dyk R.B., Faterson H.F., Goodenough D.R., Karp S.A. Psychological Differentiation. N.Y. Wiley. 1962
- Mathews A., MacLeod C. Cognitive Vulnerability To Emotional Disorders // *Annual Review of Clinical Psychology*. 2005. 1. p. 167-95
- Nolen-Hoeksema S. Responses to depression and their effects on the duration of depressive episodes. // *Journal of Abnormal Psychology* 1991. 100. p.569-82
- Vernon P.E., The distinctiveness of field dependence. // *Journal of Personality*. 1972. 40, p.366-391.

PUBLICATIONS

Keturakis V. The Attribution Style Questionnaire (Lithuanian version): Adaptation Study Comparing Depressed with Nondepressed Participants. // *Baltic Journal of Psychology*. 2002. 3(1). p. 55-62.

Keturakis V. Priklausomų bei nepriklausomų nuo lauko studentų analitinių gebėjimų ypatumai.(Field Dependent and Independent Students' Analytic Abilities)(in Lithuanian) // *Ugdymo psichologija.(Educational Psychology)* 2005. 14. p. 38-44.

REZIUMĖ

Disertacijoje analizuojama kognityvinė depresijų psichopatologijos teorija ir gilinamasi į kognityvinių procesų bei kognityvinio pažeidžiamumo depresijai ypatumus. Kognityvinė asmenybės ir depresijų psichopatologijos teorija yra svarbi sudėtinė kognityvinės depresijų terapijos dalis. Kognityvinis depresijų turinys, kitaip nei procesų bei struktūrų ypatumai, yra išsamiai aprašytas bei sulaukęs plataus empirinio patvirtinimo. Depresijų kognityvinis modelis pasipildė įrodymais, jog depresijai būdingas negatyviai tendencingas antras informacijos perdirbimo etapas – jos kodavimas ir tikslinimas. Kognityvinių schemų išskraipų susijusių su depresija analizė parodė, kad:

- Negatyvus bendras aiškinimo stilius yra susijęs su depresiniu pažeidžiamumu.
- Prielaidos apie sociotropiją bei autonomija kaip schemas susijusias su pažeidžiamumu depresijai nėra vienareikšmiškai patvirtintos.

Šiuolaikiniu požiūriu depresija tyrinėjama kaip kognityviškai nevienalytė:

- akcentuojami informacijos perdirbimo procesai, kurie yra svarbūs emocijų raiškai bei sutrikimams.
- Individualūs šių procesų skirtumai yra aktualūs depresijų kompleksiskam pažinimui.
- Kognityvinis depresija sergančiųjų stilius gali tapti šių ypatumų pažinimo galimybe.

Kognityvinio stiliaus tyrimai reiškė svarbų posūkį pažinimo psichologijos tyrimuose atsižvelgiant ne tik į turinio, bet ir į proceso kintamuosius.

Analizei pasirinkta priklausomybės-nepriklausomybės nuo lauko kognityvinio stiliaus koncepcija modifikuota pagal informacijos perdirbimo teorinį modelį kai stebimi kognityvinio perstruktūravimo gebėjimai. Priklausomybė nuo lauko pagal informacijos perdirbimo modelį suprantama kaip pasikartojanti charakteringa kognityvinių procesų tendencija, kuri reiškiasi vienu gebėjimų panaudojimo preferencija (kitaip dar galima sakyti *pasirinkimo pirmaeiliskumu*).

Pagal informacijos perdirbimo modelį kognityvinis perstruktūravimas suprantamas, kaip:

struktūros suteikimas naujai-neapibrėžtai situacijai,

naujos struktūros suteikimas pakeičiant esamą struktūrą, stimulų organizaciją.

Atižvelgdami į šias tezes išskėlėme tyrimo tikslą bei uždavinius.

Tyrimo tikslas

Šiuo tyrimu siekiama palyginti priklausomų ir nepriklausomų nuo kognityvinio lauko depresija sergančiųjų kognityvinius ypatumus.

Tyrimo uždaviniai

- 1) Empiriškai patikrinti priklausomybės-nepriklausomybės nuo lauko kognityvinių stilių:
 - a) Nustatyti kognityvinio perstruktūravimo ir struktūros suteikimo naujai-neapibrėžtai situacijai sąsajas.
- 2) Nustatyti depresijos ir priklausomybės-nepriklausomybės nuo lauko sąsajas.
 - a) Palyginti depresija sergančiųjų ir sveikų tyrimo dalyvių priklausomybę-nepriklausomybę nuo lauko.
 - b) Palyginti nepriklausomų ir priklausomų nuo lauko tiriamųjų depresiškumo lygį.
- 3) Nustatyti kognityvinių depresijos veiksnių ir priklausomybės-nepriklausomybės nuo lauko sąsajas.
 - a) Palyginti depresija sergančiųjų ir sveikų priklausomų ir nepriklausomų nuo lauko asmenų orientacijas į asmeninius pasiekimus bei tarpasmeninius santykius.
 - b) Palyginti depresija sergančių ir nesergančiųjų priklausomų ir nepriklausomų nuo lauko tiriamųjų aiškinimo stilius.

Ginami teiginiai

1. Kognityvinio perstruktūravimo ir struktūros suteikimo naujai situacijai gebėjimai yra tiesiogiai teigiamai susiję ir atspindi priklausomybės nuo lauko kognityvinių stilių.
2. Nėra skirtumo tarp depresija sergančiųjų ir sveikų asmenų kognityvinio perstruktūravimo bei struktūros suteikimo naujai situacijai gebėjimų.
3. Kognityvinio perstruktūravimo bei struktūros suteikimo naujai situacijai gebėjimai ir depresiška savijauta tarpusavyje koreliuoja neigiamai.
4. Tiek sveikų, tiek depresija sergančių asmenų kognityvinio perstruktūravimo gebėjimai nesusiję nei su asmenybės orientacija į savarankiškumą (autonomija), nei su orientacija į gerus tarpasmeninius santykius (sociotropija).
5. Depresija sergantiesiems lyginant su sveikaisiais, būdinga tendencija neigiamus įvykius aiškinti vidinėmis, pastoviomis ir bendrosiomis priežastimis.
6. Neigiamų įvykių aiškinimo stilius kaip depresinis pažeidžiamumo veiksnys susijęs su priklausomybės nuo lauko kognityvinių stiliumi:
 - a. Depresija sergantiesiems būdinga tendencija neigiamus įvykius aiškinti vidinėmis, pastoviomis ir bendrosiomis priežastimis būdinga tik nepriklausomiems nuo lauko asmenims.
 - b. Nepriklausomi nuo lauko depresija sergantieji nuo sveikų asmenų skyrėsi dažnesniu neigiamų įvykių aiškinimu vidinėmis ir bendrosiomis priežastimis.
 - c. Priklausomi nuo lauko depresija sergantieji ir sveiki asmenys skyrėsi dažnesniu neigiamų įvykių paaiškinimu pastoviomis priežastimis.
7. Priklausomybės nuo kognityvinio lauko atnaujinta samprata suteikia galimybių diferencijuoti depresija sergančiuosius pagal jų informacijos perdirbimo charakteringus skirtumus ir tikslinti depresinio kognityvinio pažeidžiamumo ypatumus.

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Šį darbą skiriu savo mamos atminimui.

ABOUT AUTHOR

Born on the 02nd of October, 1971

1989-1993 Bachelor studies at Vilnius University (Bachelor degree in Psychology)

1993-1995 Master studies at Vilnius University (Master of Psychology, Clinical psychology),

1995-2001 Doctoral studies at Vilnius University (Psychology).

1997 Study visit at the Institute of Psychology, Aarhus University, Denmark.

Research interests:

Cognitive therapy, gestalt therapy, cognitive psychology

Keturakis@gmail.com