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THESES OF THE PHD DISSERTATION

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**The role of the balancing phenomenon in the artistic process
in case of creative artists**

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1. Theoretical background

1.1. Theories of the artistic creative process

The concepts connected to the artistic creative process are of diverse nature but a common feature of the following theories is that it is characterized by fluctuation of conscious and unconscious patterns.

From the few theories that can be found in the literature, Ernst Kris's (1962) psychodynamic point of view was the basis of my thinking. Two phases of the creative work is distinguished; the first is the "*inspirational*" phase where the artist is passively present in the process. This phase shows many similarities with regressive processes in terms of such impulses and drives that are otherwise difficult to achieve. It gives the content of the artwork dominated by unconscious and preconscious functioning. The artist feels to be driven; there is a strong sense of passivity (Kris, 1939). In the second, "*elaborational*" phase, such ego functions are used as the analysis of reality. This phase requires skills like concentration, purposive planning, and problem solving. The content of the first phase is reconstructed in the second one and made understandable to others. The two phases can follow each other linearly, or they can alternate or combine.

1.2. Artists' enhanced sensitivity and mental disorders

The artistic process is a creative act during which both conscious and unconscious processes are used, suggesting that artists possess heightened sensitivity (Knafo, 2008). This implies a greater ability to react to emotions and higher tolerance of extreme emotional conditions. Further, Knafo writes that both (hypo)manic and depressive states can enhance creative activity. In a (hypo)manic period, thoughts and images are more fluid and more frequent. Concentration and focus might be more sharpened than in normal mental states. The other side of the coin, depression influences creativity by its sensitive states and by contemplation. Further, depressive states might facilitate introspection.

The fact, that mental disorders are common features in artists' life, is present in the literature very heavily. Far more case studies have been conducted and only a few empirical results can support this phenomenon. Andreasen (1987) reports a surprising number of suicides committed by writers, e.g. in the 20th century, Sylvia Plath, John Berryman, or Virginia Woolf.

1.3. Introduction to substance use connected to artists

Knafo (2008) identified possible reasons for artists' substance use while investigating experiences of *depersonalization* and *derealization*. These phenomena are observable by psychotic individuals. However, people intentionally search these experiences, too, like practicing meditation or mindfulness. Substance users search experiences that can help loosen personality and reality experiences and achieve special, altered perceptual states. Another possible reason can be that artists would like to see the world through fresher, different glasses.

Ehrenzweig (1970) named "*the hidden order of art*" the ability that most adults lack but many artists retain because of their oversensitivity. The state is presented in which knowledge, feelings, and cognitive and affective processes are not yet differentiated as childlike and regressive. If artists feel that this ability might be lost, they may use chemical substances to facilitate the desired regressive state, though, many artists have the fundamental ability to reach this state.

Further, in Kris's (1962) inspirational phase, substances may help disinhibit the blockades and complexes and occasionally give a childlike way of thinking to the artist. When using substances, the artist may be able to contact his deeper levels of psyche more easily. Substances may, on the contrary, reduce emerging anxiety and distress because of the work with the unconscious, even if the artist does not use substances for creative work at all. In this respect, the role of psychoactive substances, such as alcohol, benzodiazepines, and opiates, which can have depressant effects, can be emphasized. Another reason for the artists' substance use, in addition to regression seeking, might be to reduce the anxiety, which can be experienced as the result of regression.

2. Research questions and the structure of empirical studies

In the dissertation, I present six studies. The focus is on two phenomena connected to the artistic creative process. First, artists possess enhanced sensitivity which can be observed from the high rate of mental disorders. Second, the artistic creative process is described as an activity where conscious and unconscious processes are in strong interrelationship with each other. Working a lot with unconscious material may cause emotional fluctuations that are difficult to handle. These might mean both states of special excitement and calmness. The interactions of these two notions strengthen each other. In this respect, the frequent appearance of psychoactive substances in case of artists is highly probable.

We studied these interactions in depth. In one of our studies (Iszaj & Demetrovics, 2011b), the balancing phenomenon was introduced. It is the totality of those techniques that are used to find equilibrium between the enhancements of sensitization required to the creative work and the relief after this intensified emotional state. The aims of the below presented studies were to examine in details how the different states of consciousness are related to the artistic creative process and artistic creativity.

Two case studies were written to capture this notion. The first case study is about the relationship between Virginia Woolf's bipolar disorder and her life and artistic work (Iszaj & Demetrovics, 2011a).

The second case study reviewed the effects of Edgar Allan Poe's and Samuel Taylor Coleridge's opium use to their lives and artistic creativity, i.e. their literary work (Iszaj & Demetrovics, 2011b). The balancing role of opium was emphasized in the artist population (Iszaj & Demetrovics, 2011c).

As the next step, we have systematically reviewed the literature of psychoactive substances related to the artistic creative process/artistic creativity (Study 3) (Iszaj, Griffiths & Demetrovics. Creativity and psychoactive substance use: a systematic review. 2014; manuscript in preparation).

We were also curious whether artists' more frequent substance(s) use and bigger possibility of mental disturbances could be strengthened. That's why art students' and other university students' data were collected and analyzed (Study 4) (Iszaj et al. 2014; manuscript in preparation).

The long-term effects of psychoactive substance use in depths were studied in the two qualitative studies. We recorded interviews with 120 artists; this material was used as the basis of analyses. First, psychedelic substances were examined in case of 60 artists' verbal behavior (Study 5). Three word categories *creativity*, *consciousness* and *spirituality* were generated (Iszaj, Ehmann & Demetrovics, 2012a).

The other qualitative study explored the effects of cannabis and alcohol to the verbal behavior of 72 artists (Study 6) (Iszaj, Ehmann & Demetrovics, 2014; manuscript in preparation). Here, the word category *creativity* remained from the previous study and another was generated; *tension control*. Besides the long-term effects of the substances, a further aim was to catch the balancing phenomenon with the newly created word category.

3. Empirical studies

3.1. Study 1. Writing as a balancing phenomenon in Virginia Woolf's mental illness

3.1.1. Goal of the study

The aim of this study was to reveal this relationship through the detailed examination of Virginia Woolf's life, work, and course of her illness.

3.1.2. Method

First, Virginia Woolf's life, and artistic importance is analyzed. Then, the effects of her lifelong bipolar disorder are described in relation to her life and literary works.

3.1.3. Results and discussion

Translating illness into art

Virginia Woolf was highly interested in the question of the self that can be observed in her artworks. She did not comprehend personality in its entirety but as the collection of different parts (Gardner, 1997).

On several occasions, the integration of her hallucinations can be observed. We can read in Dally's book (Dally, 1990) that the birds were singing Greek to Virginia, experienced by Septimus in "Mrs. Dalloway" (Woolf, 1996).

For Woolf, writing was an essential tool for elaborating her feelings, experiences, and conflicts. She never underwent psychoanalysis, at the same time, writing served as a tool for exposing her inner conflicts and their transformation in her consciousness. Woolf's writing was not an unconscious process. She built in her inner conflicts; therefore writing became both a tool and a result for her. Accordingly, creation was at least partly a conscious process. She strongly and markedly evaluated her internal occurrences and transferred them into her works of art. In "To the Lighthouse," she unambiguously shaped Mr. and Mrs. Ramsay's figures, basing them on her parents. In the book, Mrs. Ramsay has a narcissistic personality. A good example of Woolf's self-therapy is the writing of "To the Lighthouse" because her mother's remembrance haunted her until the age of 44. As soon as she finished the novel, her

obsession, and the hallucinations disappeared. It seems as though she elaborated her feelings towards and rough conflicts with her mother in her works rather than on the psychoanalytic couch. Virginia Woolf's technique of writing down her inner life is similar to the psychoanalytic method of putting the inner life into words, to the ideation (Wolf & Wolf, 1979).

3.2. Study 2. The balancing role of opium in the life and art of Edgar Allan Poe and Samuel Taylor Coleridge

3.2.1. Goal of the study

Psychoactive substances can serve double function in the case of artists. On the one hand, chemical substances may enhance the artists' sensitivity. On the other hand, they can help moderate the hypersensitivity and repress extreme emotions and burdensome contents of consciousness. The study focuses on how the use of opiates could have influenced the life and creative work of Edgar Allan Poe and Samuel Taylor Coleridge.

3.2.2. Methods

First, the two artists' life and artistic activities were overviewed. Then, their substance using habits were added to the description.

3.2.3. Results and discussion

The effects of opium appear in both artists' case, suggesting that both authors used substances to enhance their sensitivity, although we have to emphasize here that the given substances did not help to enhance creativity, they were rather used to reach the balancing effect. As we could see, an important element of the two artists' creative process is working with unconscious material, or rather searching for and integrating unconventional, new experiences essentially related to opium use. On the other hand, the tranquilizing, relaxing effect of opium is also present in their lives. In their case, opium had a role not only in relieving outer stressors but also in easing inner tensions, allowing for intensified states to come forward during work and for oversensitized states caused by the creative process to be relieved.

In conclusion, in Poe and Coleridge's case, the balancing effect can be easily observed during the creative process, which consists of working with both conscious and unconscious materials. At the same time, we could see that opiates cannot really fill in this equilibrant role. In Poe's life, we could find an important role of alcohol too, supposedly compared with laudanum it had also the role of balancing. In this regard, both Coleridge's personality change at his older age and his isolation represent that opium had a negative effect on his life and condition. Therefore, even if the authors' opiate use could add to the representation of experiences of certain works, we can see that in the end, opium influenced the two writers' life very unfavorably. The opium use might have played a role in Poe's early death and Coleridge's isolation in the late period of his life.

3.3. Study 3. The connection between psychoactive substance use and creativity: a systematic review

3.3.1. Goal of the study

The goal of our present study was to review the current knowledge available on the relationship between creativity/artistic creative process and the use of psychoactive substances.

3.3.2. Methods

3.3.2.1. Search strategy

All studies were considered for inclusion that provided empirical data on the relationship between psychoactive substance use and creativity/artistic creative process and had been published in English in peer-reviewed journals or scientific books. For the review of the literature we searched the following databases: PsycINFO, MEDLINE, PubMed, Science Direct, Web of Science, EBSCO. The search was carried out on March 19, 2014. The electronic search was executed for two groups of keyword combinations. For substance use we used the following keywords: drug*, psychoactive substance use, psychedel*, psychotrop*, hallucinogen*, lsd, magic mushroom, mescaline, peyote, and psilocybin, while for creativity we applied the following keywords: creativ* and art*. The electronic search was supplemented by a manual search.

3.3.2.2. Exclusions

During the electronic search, as a result of the combination of the two keyword clusters, 327 studies were identified and the overview of the references resulted in one further study. In the case of 179 papers, the keyword art* referred to other meanings than artistic procedure (e.g. artery, arthritis, artificial); these articles were excluded from analysis. Further, 96 papers dealt with other aspects than the focus of our study (e.g., art therapy). In the following step we excluded the book reviews (2 hits), one doctoral dissertation and the non-English language studies (6 hits). 22 studies were excluded because they did not contain any original empirical results but reviewed the literature, these served as theoretical analyses. Those studies that dealt with the effects of alcohol use have also been excluded (2 hits). Altogether, 20 studies got into the collection of our focus of which 14 were empirical, while another six were case studies.

3.3.3. Results and discussion

Study	Country	Psychoactive substance examined	Sample characteristics	Sample size	Sampling method	Assessment of creativity	Statistical analysis	The psychoactive substance's effect on creativity
1. Komgold, 1963	USA	LSD	patients in psychotherapy and volunteers	not specified (40-)	no data	Based on the subjects' reports	no	+
2. Harman et al., 1966	USA	mescaline, LSD	non-clinical sample of adults	27 healthy males with an occupation involving creativity	convenience	Purdue Creativity Test, Miller-Object Visualization Test, Witkin Embedded Figures Test	Chi Square Test	+
3. Fischer & Scheib, 1971	USA	psilocybin	non-clinical sample of adults	6 out of 21 volunteer college students who already had experience with psilocybin	convenience	subjects' drawings were analyzed	descriptives	-
4. Steffenhagen et al., 1976	USA	no data	non-clinical sample of adults	100 male non-clinical substance users and 100 male non-substance user university students	convenience	Barron-Welsh Art Scale, Allport-Vernon-Lindsay Study of Values, Fromm-Maceoby Life Orientation Test	Mann-Whitney Test, Chi Square Test, multiple regression analysis	+
5. Kerr et al., 1991	USA	various substances	professional artists	22 writers, 12 musicians, 27 painters and 25 controls	convenience	being professional artists	MANOVA, Chi Square Test	Cocaine and cannabis were used by musicians significantly more compared to the other three groups +/-
6. Edwards, 1993	USA	various substances	adolescents, clinical sample	15 clinical substance dependent adolescents and 15 nondependent adolescents	convenience	Figural Form A of TTCT	T-test	-
7. Lowe, 1995	UK	various substances	non-clinical sample of adults	459 female and 160 male individuals from general population	convenience	Analysis of the Mass-Observation Archive by independent raters	Pearson Correlation	+
8. Dakin de Rios & Janiger, 2003	USA	LSD	non-clinical sample of adults	20 artists	convenience	56 drawings and paintings	no	+
9. Preti & Volante, 2007	Italy	various substances	non-clinical sample of adults	80 professional artists (30 musicians, 25 painters, 25 writers) and 80 matched controls	systematic	being professional artists	no	+
10. Jones et al., 2009	Wales	ecstasy, cannabis	university students	15 abstinent ecstasy users, 15 abstinent cannabis users, 15 non substance user controls	snowball technique	Consequences Test of Creativity, self-rated Creativity Scale, ADCL	ANOVA, correlation	only in case of cannabis +/-
11. Plucker et al., 2009	USA	various substances	non-clinical sample of adults	431 university students	convenience	ACL	T-test, correlation	-
12. Schäfer et al., 2012	UK	cannabis	cannabis user adults	160 subjects; 43 low creative individuals and 47 highly creative subjects were selected for analysis	snowball sampling	Verbal Fluency Task, Category Fluency Task RAT, CAQ	ANOVA, Bonferroni's Test	+
13. Frecska et al., 2012	Hungary	ayahuasca	non-clinical sample of adults	40 volunteers of general population and 21 international university students and staff members	convenience	figural components of TTCT	Bonferroni's Test	+
14. Frink et al., 2012	Austria	various substances	inpatients and non-clinical adult sample	17 actors, 13 alcohol dependent patients, 18 poly-substance dependent patients and 21 university students as controls	convenience	subtest of the TTCT Verbal Imagination subscales of the Berliner Intelligenz-Struktur Test, Picture Completion	ANOVA, correlation	+

In the course of our systematic review, 14 empirical studies and 6 case studies were identified that were about the connection between creativity/artistic creative process and psychoactive substance use. Our first observation was that the results of these studies converged only poorly. The main reason was that the aims, methodologies, samples, used methods and the types of psychoactive substances of the few studies showed huge heterogeneity. Due to all this, an unambiguous conclusion is hard to draw.

The link between creativity and the use of psychoactive substances is somehow strengthened by most of the studies; we can state this for sure. However, the nature of this connection is not obvious. The often emerging viewpoint that psychoactive substances enhance creativity/the creative performance could not be proven. At the same time, we can see that (i) the occurrence of psychoactive substance use in highly creative individuals is more characteristic than in other populations (Preti & Vellante, 2007; Jones et al, 2009) and (ii) this connection is probably based on the interaction of the two phenomena. Psychoactive substances are supposed to have indirect effect on the artistic creative process by the alteration of experiences, the enhancement of sensitization, and the relaxation of conscious processes. So, the quality of the artworks changes (Dobkin de Rios & Janiger, 2003). Landon & Fischer's (1970) study refers to this, too. On the other hand, psychoactive substances might play a role in the case of artists in trying to stabilize and compensate primarily unstable mechanisms. This can also appear in connection with certain mental disturbances (e.g. Fink et al, 2012; or Press, 2005).

Additionally, we can state that (iii) certain functions connected to creativity might modify and/or improve to the effect of psychoactive substances. According to these researches, psychoactive substances might add to the change of aesthetic experience (Korngold, 1963), or enhanced creative problem-solving (Harman et. al, 1966). Further, Jones's (2007) result showed that LSD changed a cartoon drawer's style. Similarly, in Belli's (2009) case study, the modification of musical style was reported connected to substance use. However, these in themselves will not result creative production. Further, (iv) in certain cases, substances might strengthen only already existing personality traits (Fischer & Scheib, 1971).

3.4. Study 4: Comparison of substance using characteristics of art students and non-art university students

3.4.1. Aims of the study

The goal of conducting the study was to determine whether the above described theoretical considerations about artists' more frequent psychoactive substance use and mental disturbances can be proven, or not. A significant difference was supposed related to the two notions in the case of art students and other university students.

3.4.2. Method

3.4.2.1. Sample

Artist sample. The artist sample comprised of students in higher education in the field of arts. We collected data from three Hungarian universities of fine arts and design. Altogether, 130 art students were involved into the study. The sample comprised 26.2% of males. The mean age was 22.06 years (SD=2.09 years).

Non-artist sample. As a comparison group we involved 698 university students of non-art studies. It contained 42.4% males. The mean age was 23.8 years (SD=1.33 years).

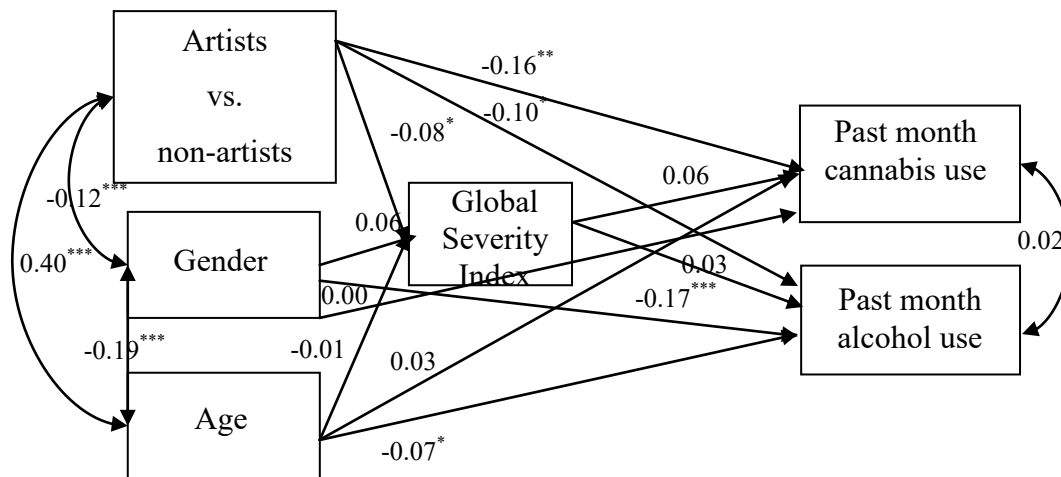
3.4.2.2. Measures

To measure the participants' psychoactive substance use, a structured questionnaire was used. The questionnaire contained items regarding the use of several legal and illegal substances, including tobacco, alcohol, cannabis, ecstasy (MDMA), amphetamines, cocaine/crack, heroin and other opiates, LSD, psychoactive mushrooms, GHB, solvents, combination of alcohol benzodiazepines, and benzodiazepine use without prescription. The age of the first use was also assessed. In the case of tobacco both the age of the first experimenting and the starting age of regular smoking was assessed. Similarly, in the case of alcohol both the first age of alcohol use and getting drunk was asked. Additionally, the frequency of past month and past year alcohol and cannabis use was also assessed.

The Hungarian version of the Brief Symptom Inventory (BSI) containing 53 items was completed by the participants (Urbán et al., 2014), which is one of the most widely used self-report tests for measuring psychological problems. The Global Severity Index (GSI) was also counted (Derogatis, L. &Melisaratos, N., 1983).

3.4.3. Results and discussion

Figure 1. Path analysis model of past month alcohol and cannabis use



*p<0.05; **p<0.01; ***p<0.001

The grouping variable of being an artist or non-artist had significant predictive value on the frequency of past month alcohol and cannabis use as well as on GSI's mean score. Age and gender as the covariates had significant predictive value on the frequency of past month alcohol use, but had no significant predictive value on the frequency of past month cannabis use or on GSI's mean score. GSI as the mediator had no significant predictive value neither on the frequency of past month alcohol use, nor on the frequency of past month cannabis use.

This shows that art students tend to use substances more frequently that strengthens Preti & Vellante's (2007) study. Art students were also found to have more severe psychiatric symptoms that supports the above described theoretical considerations and Andreasen's (1987) empirical result.

3.5. Study 5. The effects of psychedelic substances on the verbal behavior of 60 artists.

3.5.1. Aims

The aim of the study was to analyze the relationship between the use of psychedelic substances and their effect on creative artists' language.

3.5.2. Method

3.5.2.1. Participants

In total, 120 artists were recruited to the study by convenience sampling. The inclusion criterion was that they had to be artists by profession, or art students at a higher education establishment. The latter group was selected from the Hungarian University of Fine Arts and the Moholy Nagy University of Art and Design in Budapest. The artists' professions included different fields of the arts: literature, film art, fine arts and applied arts. Participants were assigned to one of two groups according to their substance use.

3.5.2.2. Interviews and questionnaire

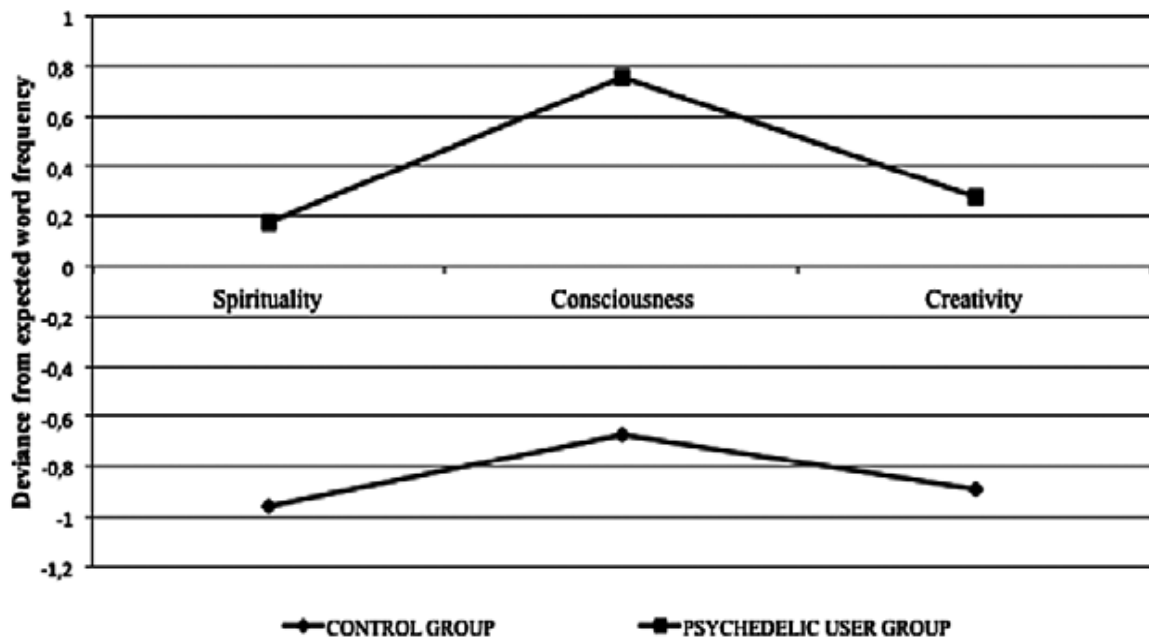
Semi-structured interviews with open-ended questions were conducted with the subjects between August 2010 and July 2011. All interviews were audio-recorded. The interviews had two main thematic parts. In the first, the subjects were asked about the artistic creative process itself: how they experience it, what they think about it, what sort of special working habits (if any), they have, etc. The second part inquired about their opinion and experience of the connection between psychoactive substance use and artistic creation. Further, a brief, structured questionnaire was administered in the middle of each interview to assess the subjects' legal and illegal substance use.

3.5.3. Data analysis

Both qualitative and quantitative analysis was used in this study. For qualitative content analysis, the Atlas.ti software was used. The aim of conducting a quantitative content analysis on our data was to explore the long-term effects of psychoactive substance use on verbal behavior. Quantitative content analysis was performed using the NooJ linguistic development environment (Silberztein, 2004).

3.5.4. Results and Discussion

On the one hand, statistical results of quantitative content analysis found that word frequencies of all the three categories were significantly higher in the psychedelic user group than in the control group (creativity: $t = 4.813$, $p < 0.001$; consciousness: $t = 3.463$, $p = 0.001$; spirituality: $t = 3.021$, $p = 0.004$) (Figure 2).



Concerning the relationship between psychedelics and creativity, a minority of the artists who used psychedelics reported that they are unable to work under the influence of the substances because of the strong alteration of perception, which supports Fischer’s (1972) statement that the efficiency of creativity might not be enhanced. However, over two-thirds believed that psychedelics help improve inspiration, which confirms Masters & Houston’s (2000) claim that psychedelics can be used to facilitate creativity. Artists report that artworks made under the influence of psychedelics are clearly different from those created in normal conscious state, which is consistent with the study of Dobkin de Rios & Janiger (2003).

The experience of interrelations (understanding the meaning of things linked to each other) were important elements of psychedelic substance use for the artists. They can be connected to Farthing’s (1992) term ‘interpretative introspection’ in the sense that the subjects deal with their feelings and thoughts in a deeper way under the influence of a substance than they would on other occasions. Their changed thinking skills, their perception of the creative act as an altered state of consciousness, and their belief that psychedelics enhance their thinking prove the above-described phenomena proposed by Grof (2000) and Grinspoon & Bakalar (1979).

To review the theme of spirituality, the subjects frequently reported Dobkin de Rios & Janiger’s (2003) concept of unity, which is characterized by a liberated feeling and sacredness, described by McCabe (1974) as traits of psychedelic peak experiences.

3.6. Study 6. The effects of alcohol and cannabis to the verbal behavior of 72 artists

3.6.1. Aims

The study focused on the long-term effects of alcohol and cannabis. It examined the relationship between their use and the verbal behavior of artists.

3.6.2. Method

3.6.2.1. Participants

In total, 120 artists were recruited to the study by convenience sampling. The inclusion criterion was that they had to be artists by profession, or art students at a higher education establishment. The latter group was selected from the Hungarian University of Fine Arts and the Moholy Nagy University of Art and Design in Budapest. The artists' professions included different fields of the arts: literature, film art, fine arts and applied arts. 72 subjects were selected to three groups; The *Cannabis Group*, the *Alcohol Group* and the *Moderate Substance User Group*.

3.6.2.2. Interviews and questionnaire

Semi-structured interviews with open-ended questions were conducted with the subjects between August 2010 and July 2011. All interviews were audio-recorded. The interviews had two main thematic parts. In the first, the subjects were asked about the artistic creative process itself: how they experience it, what they think about it, what sort of special working habits (if any), they have, etc. The second part inquired about their opinion and experience of the connection between psychoactive substance use and artistic creation. Further, a brief, structured questionnaire was administered in the middle of each interview to assess the subjects' legal and illegal substance use.

3.6.2.3. Qualitative data analysis

Computer-aided qualitative data analysis of the artists' interviews was also applied with the aim of detecting possible new aspects of the relationship between substance use and artistic creativity. For qualitative content analysis, the Atlas.ti software was used. As the first step, all interviews were entered into the software. This was followed by a manual selection and coding of each sentence that contained references to the relationship between the use of alcohol and cannabis and (a) *tension control* and (b) the *creative process* and *creativity*.

3.6.3. Results and discussion

Quotations from both the substance user and control groups were collected in order to document their perceptions connected to the two word categories. The *tension control* category is divided into two parts; to show both the enhancing and the relaxant nature.

Artists frequently report about the balancing effect. To reach the suitable state for creation can happen in many ways. Related to this, both psychoactive substances are present in the subjects' reports; artists were talking about the self-medical characteristics of psychoactive substances. On the one hand, substances are able to enhance inner tension, if it is necessary. On the other, if the tension is too big, substances are reported to have a relaxant nature. During the artistic creative process, both emotional conditions are necessary. Most of them think that implementation should happen in a sober state, although we can find the controversy of this statement, too. An interesting observation was made in the MOD group where *music* - especially rhythm – was described as a mind altering tool as a common element.

4. Conclusion

This was the first series of studies catching the connection between the above presented three notions. The main question that remained opened was the direction of these links. With further researches on diverse samples, these relationships could be seen clearer. We could see that the theory about artists' sensitivity was strengthened. As far as I know, our quantitative study was the first, investigating psychoactive substance using habits and mental disorders in a university environment. Being an art student hides the risk for further problems of both substance use and mental disturbances.

It is probable that artists have the fundamental ability to remain very sensitive in adulthood as e.g. Ehrenzweig (1970) hypothesized. Further, substance use might cause further

sensitive emotional states both in the short and in the long run. However, this highly depends on the type of the substance, the person and the setting (Zinberg, 1984). That's why the directions of these connections would be hard to define. Besides, mentally ill persons live very close to unconsciousness. The similarity with artists is inevitable but the situation is not much better than in the former case. Most of the artworks that have long-lasting effect in the history of mankind are created by mentally unstable individuals. But if the artist is psychotic, he is unable to create. Artworks created by mentally ill people cannot be interpreted by general opinion; that's why they do not have serious impact on future culture. The line between the acceptable and unacceptable artworks is very narrow. Finally, the comorbidity of substance use and mental illnesses is also a relevant issue. The causal link is interesting – mentally ill people tend to use substances with a greater possibility or they become psychotics by using them frequently, although this cannot be schematized like this.

Besides, we tried to study the balancing effect that was difficult because of its complex nature. As we could see the connection between the above analyzed three notions can be demonstrated. Unconscious processes are highly present through the artistic creative process but generally, it is the everyday element of artists' life. Besides, a lot of conscious effort is also necessary for fulfilling work. The continuous change of these processes implies the need for the tolerance of extreme emotional conditions. To remain productive in these circumstances, artists tend to alter their mood of consciousness. The evidence related to the balancing phenomenon was partly proven. Artists' tendency for trying to stabilize their emotional conditions can vigorously be seen. The case studies serve as evidences; however, further empirical investigation of this notion might be a future task.

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