

Running head: SOCIAL PHOBIA: CONTROL PROCESSES

Social Phobia: Control Processes in Anxiety-Provoking Situations

Petri Mäntynen*, Juha Happonen and Antero Toskala

University of Jyväskylä

* Corresponding author:
Petri Mäntynen
University of Jyväskylä
Department of Psychology
PO Box 35
SF-40531 Jyväskylä
Finland

UNIVERSITY OF JYVÄSKYLÄ
Department of Psychology
P.O. BOX 35
SF-40351 Jyväskylä
FINLAND

Abstract

Control of anxiety-related emotions in anxiety-provoking situations were qualitatively examined for 21 social phobic clients before treatment. A model illustrating the functional coherence of the control processes across those situations was constructed, based on narratives of problematic situations. Results indicated that the model reflects fundamental processes in social phobia, possibly resulting from early attachment. In addition, three groups were identified that differed in respect to control-activity. These results indicate that the differences reflect surface variation of processing, resulting from development and interaction in adolescence and adulthood. Both the coherence and the variation should be taken into account when dealing with and developing treatment procedures for social phobics.

Social Phobia: Control Processes in the Anxiety-Provoking Situations

The DSM-IV (American Psychiatric Association, 1994) defines social phobia as a prevalent and disabling disorder, where a marked and persistent fear of social situations often results in the avoidance of these situations. Several researchers have studied the effectiveness of its treatment (Agras, 1990; Butler, Cullington, Munby, Amies & Gelder, 1984; Heimberg, Saltzman, Holt & Blendell, 1993; Mattick, Peters & Clarke, 1989; Mersch, Emmelkamp, Bögels & van der Sleen, 1989). However, little is known about the nature of the disorder and factors involved in its maintenance (Mattick & Peters, 1988; Stopa & Clark, 1993). This is surprising, because when all is taken into account, the most effective way to direct the use of therapeutic strategies is by examining and identifying the basic processes underlying the disorder (Guidano, 1991, Mahoney, 1991).

Cognitive suggestions about the nature of social phobia have been based on the behavioral and rationalistic tradition of theory. The models presented so far emphasize the role of conditioning due to social trauma (Wolpe, 1973), uncertainty concerning self-presentation (Schlenker & Leary, 1982), excessive fear of scrutiny and negative evaluation of other people (Chambless & Gillis, 1993; Mattick & Peters, 1988; Stopa & Clark, 1993), and imagined lack of social skills (Alden & Wallace, 1995; Beck, Emery & Greenberg, 1985; Hope, Rapee, Heimberg & Dombek, 1990). Consistent relationships have also been found between a perceived lack of control and anxiety (Cloutre, Heimberg, Liebowitz & Gitow, 1992).

Clinical reports have also focused on the individual's locus of control related to anxiety. Individuals who have experienced lesser internal control have reported higher levels of anxiety compared to those with greater internal control (Watson, 1967). Social phobics tend to have the idea that control over events in anxiety-provoking situations rests primarily in the hands of powerful others (Cloutre, Heimberg, Liebowitz & Gitow, 1992). Cognitive features associated

with anxiety seem to suggest perceptions of uncontrollability (Hibbert, 1984). The previous behavioristic and rationalistic models as well as studies concerning locus of control have undoubtedly contributed to our understanding of the nature of social phobia. They have, however, neglected emotions in focusing examination on the control of behaviour and thoughts.

Recently, researchers of a more constructivist orientation have paid attention to social phobics' extreme control related to emotions. Toskala (1988, 1991) found that the tendency to overcontrol negative anxiety-related emotions is an essential feature among social phobics and agoraphobics. Possibly resulting from a poor sense of control, the effort to increase control and in that way to cope with anxiety is a common way of responding to anxiety-related experiences (Mahoney, 1991). Guidano (1991) states that the generativity and maintenance of phobic disorders lies in the attempt to control anxiety-related emotions to the point where they have been experienced but excluded from the acceptable self-image. However, little research has been directed at describing the control strategies in practice. Based on the previous views, the purpose of this study was to describe how the tendency to control anxiety-related emotions manifests itself in practical anxiety-provoking situations.

Evidently, there are different individual strategies behind manifestation of emotional control in problematic situations. Thompson (1981) reviewed studies on the role of perceived control in subjective distress, and concluded that reactions to potentially stressful events depend on their meaning to the individual. Recent theory has generally emphasized the highly personal nature of the meaning construction behind our activities (Greenberg et al., 1993; Guidano, 1991, 1995; Mahoney, 1985, 1991, 1995a; Neimeyer, 1993). All in all, then, we hypothesized that it is possible to describe different strategies concerning the control of anxiety-related emotions.

Despite the emphasis on the significance of individual processing, there has been a growing interest in common processes lying at the base of certain symptomatology. Mahoney (1985, 1991) suggests that some deep and unconscious forms of processing may be more fundamental than others in understanding the surface activities. Rather than being identified with descriptive features of knowledge content, the psychological disorders are considered in the light of processing-styles, which causally produce those features (Guidano, 1991). These suggestions, in other words, include the idea that it would be likely to identify some basic rules and processes underlying social phobia.

Present knowledge of the basic features underlying social phobia tends to support the central position of excessive self-directedness in anxiety-provoking situations. Reviewing the work of several researchers, Woody (1996) concludes that social phobia is characterized by a host of self-directed cognitions. Self-consciousness and, thus, focusing attention on oneself has been suggested to be relevant to the phenomenology of social phobia (Hope & Heimberg, 1988). Individuals who are to a considerable degree concerned about the impression mediated to others have a tendency to experience social anxiety (Fenigstein, 1979). Previous models are, however, ambiguous concerning the focus of self-consciousness.

These inconsistent findings raise questions about the role of discrete elements of self-consciousness. Self-consciousness has been conceptualized as private when referring to the awareness of private thoughts and feelings about the self, and public when referring to the awareness of oneself as a social object (Fenigstein, Scheier & Buss, 1975). The question to ask is, whether anxiety-related emotions are primarily connected with private or public self-consciousness. It was hypothesized that individuals with social phobia would focus on both elements of self-consciousness and that these elements would be in mutual interaction. This hypothesis was generated as a result of following two observations. First, every perspective on

the mind presupposes interaction between organism and environment (Mahoney, 1995b).

Second, the attitude towards self is always inseparably connected with the attitude towards the world (Guidano & Liotti, 1983).

In conclusion, our aims were two-fold: First, we studied how the tendency to control anxiety-related emotions manifests itself in practical anxiety-provoking situations. We expected to find individual differences concerning control strategies. Second, we explored the basic processes underlying social phobia, especially to clarify whether the control of anxiety-related emotions primarily concerns private or public self-consciousness. We hypothesized that control concerns both elements of self-consciousness and that these elements are in mutual interaction. In order to answer these questions we qualitatively analyzed the narratives of social phobics concerning the anxiety-provoking situations experienced in their daily life.

Method

Participants

Participants included 20 female and 1 male who sought treatment at the Psychotherapy Clinic of the University of Jyväskylä. They were interviewed by an experienced psychotherapist and met the DSM IV (American Psychological Association, 1994) criteria for social phobia.

The participants were selected from 28 patients. Three of them were excluded because of other distinct psychiatric problems and four because they finally failed to complete the research-programme.

Materials

The participants completed a qualitative self-report questionnaire, which was constructed, firstly, on the basis of the clinical experience of the authors, and secondly, on previous theory

concerning the nature of social phobia.

The material for the study included the following topics presented in the questionnaire amongst other questions: 1) one exact description of the problematic situation (including physical and mental images, feelings, emotions, sensations, thoughts and perceptions, and the client's own reactions concerning the preceding items), 2) a description of others' imagined reactions to oneself in this situation, 3) the worst possible threat-related images in the situation and 4) the physical and mental experiences, images, feelings and emotions occurring after it. The material, then, includes one description from each participant concerning an anxiety-provoking situation experienced in their daily life before treatment. The data have the nature of a written narrative and the length of the narratives vary from one to three pages of text in typescript.

Procedure

The participants who met the criteria of the study on the basis of the screening-interview were asked for their consent to participate in a research project concerning social phobia. Thereafter, the qualitative self-report questionnaire was administered by the interviewer at the end of the screening-interview. The participants were instructed to honestly answer the questions immediately after the anxiety-provoking situation, as precisely as possible. They were asked to describe their experience in only one, but typical, situation. They filled in the questionnaire at home and returned it at the beginning of the first therapy-session. The participants later attended a 12-session cognitive-constructivist oriented therapy group, and the questionnaire was a starting-point for studying the therapy-process.

Data Analysis

This study was carried out using qualitative methodology. The unit of analysis comprised the narrative (questionnaire) of each case. The handwritten narratives were transcribed into

computer textfiles and were qualitatively analyzed with the help of a WP-Index computer text analysis programme (Sulkunen & Kekäläinen, 1992).

The qualitative analysis was carried out by using the strategy and steps presented by Dey (1993) with some adaptations. First, the narratives were read in a holistic and impressionable fashion with the aim of forming a general picture and becoming familiar with the data. The formulation of questions in qualitative research tends often to emerge during the research-process rather than being imposed a priori (Miles & Huberman, 1994). The research questions of the study, then, were refined during the familiarization-process.

Second, the narrative of each case was categorized according to the main themes which emerged during the familiarizing-process. As categories were considered, we constantly compared these with the text. If the text did not support a particular category, the system was refined. The refinement-process consisted of re-readings of the narratives, and the splitting, splicing and connecting of the categories (Dey, 1993). Finally, we formed seven descriptive main categories and 38 subcategories, with each case categorized according to the resulting system. Table 1. presents the categories.

[Insert Table 1. about here]

After establishing the classification-system we grouped the data by q-factor analysis (VARIMAX rotation) on the basis of dichotomous ratings of the categories applicable (0 or 1) to each person. Dey (1993) notes that computer-programs often provide procedures for enumerating the degree of empirical support for the categories and the connections that have been identified in analysis. However, numbers although they can be a useful corrective of initial impressions, may not reveal the whole variation. We, thus, checked the contents and the adequacy of the groups by constant comparison with the narratives. The final step included answering the research questions on the basis of the analysis.

Confirmability of the Data

The confirmability of the data was assured in three different ways. First, colleagues were used as "checks" during the analysis and in the selection of the textual extracts. The viability of the study, then, is based on the support of other researchers. Second, the transcripts were read by a second reviewer, a masters level student, who was constituted by the supervising professor (Ph.D. A. Toskala), and was not a member of the research group. The second reviewer classified the data for the statistically most significant categories (factor score > 1 or < -1) based on the factor analysis. She placed the categories within the narratives on accuracy of 65% for the first reading and 86% for the second reading, compared to researchers. Final discrepancies were resolved through discussion. We suggest the percentages as an estimate of the reliability of the categorizing, which reflects the reiteration and usability of the resulting system. Third, we augmented the results by presenting extracts from the original narratives which describe the problematic situations. Thus, the qualitative analysis affords an opportunity for the reader to become (or not to become) convinced of the viability of the analysis (Gergen, 1982; Wahlström, 1992).

Results

Identification of the Groups

We were interested in, whether the individuals differed in their control-activity of anxiety-related emotions in practical anxiety-provoking settings. By factor analyzing the materials on the basis of the categories attached to each person, three meaningful groups (A: $n=5$; B: $n=5$ and C: $n=8$) were formed. Three deviant cases were noted: two cases differed from the characteristics of any one particular group and one case included the characteristics of every group. The results prove that there is an obvious heterogeneity among social phobics in relation to control-activity in anxiety-provoking settings. Information concerning the

properties of the three groups was deepened by qualitative analysis.

Characteristics of the Groups

The differences in control-activity were studied in more detail. The three cases with mixed properties as mentioned above were excluded. The differences between the groups are described using representative extracts from the narratives of each group. The extracts were selected on the grounds that they sufficiently illustrated both the phenomena and the characteristics of the group. We also present the reconstructive interpretations of the researchers in conjunction with the extracts. The numbers preceding the extracts refer to the number of the case and the lines of the extract within the narrative. The brackets refer to omitted lines, which did not include information concerning the phenomena in question.

Group A: the Passive Phobics (PPs)

In the first extract, one of the Passive Phobics (PPs) describes her experiences in a typical anxiety-provoking situation:

19: 30-32

I'm nervous and I'm sweating, my speech is broken and strained. I don't always know what to say, I feel unsure of myself. Negative emotions are present, I'm angry with myself and depressed about the emotions. I wish I could be somewhere else doing something else.

The PPs typically tended to freeze during the problematic situation as the client describes. There was a tendency among them to try to control this experience by acting passively and in a withdrawn manner. They made no effort to resolve the situation, but instead attained a sense of self-control by becoming wrapped up in themselves and by avoiding active engagement with the experiences triggering their anxiety-related emotions. This control strategy tended to disturb their concentration and resulted in a blurring of their thoughts and feelings. Therefore, they experienced themselves as losing contact with the immediate environment which they

described as "fogginess".

The previous extract described the reactions of the PPs towards themselves in relation to anxiety-related emotions. The next section illustrates their attitude towards other people:

6: 35-37

Sometimes I feel pity for myself and would like to isolate myself from others because I'm so ashamed. Anyway, it is always difficult in the beginning to look those people in the eye, who are present. Maybe I'm bitter too. Others feel pity for me, they look away.

As the client described, the most prevalent perceptual features of the PPs was a one-sided and negative attitude. They did not perceive anything positive emanating from others in anxiety-provoking situations. Rather, their self-control consisted of suspicious, inferior and self-pitying elements. This attitude correspondingly manifested itself as frustration reflected towards others as bitterness and anger.

Turning our attention to the PPs control-activity after anxiety-provoking situations, its passive nature is once again reflected:

6: 55-58

Afterwards I just want to forget the whole incident but I can't always do it immediately. Sometimes I would like to hit and punish myself for having been so stupid. [] I try to assure myself that there is no reason to be tense and that everything is going to be alright, but I still begin to feel a weight in my chest when thinking about the next presentation. That's why I try not to think about it beforehand.

The resolutions and future plans of the PPs appeared to be coherent in relation to their processing-style. The most characteristic way for them to process problematic situations after the event was to passively wait for the next annoying one. Their perceptions related to anxiety were mainly ones of despair, with the result that the only way for them to maintain a sense of

control was to avoid facing the anxiety-related emotions as well as other people. Tension and self-reproaches typically remained after the situation. As a consequence of this feeling of despair and becoming wrapped up in themselves, it is even possible that they wished to do themselves harm.

Group B: the Pseudoactive Phobics (PsPs)

We begin the examination of the second group (the PsPs) with an extract in which the client describes her experiences in a group setting:

20: 38-41

I pretend to listen, I don't take the initiative, [...] in order that my oddness, tension [...] will not become visible. I invent something formal to say in order to preserve my dignity and appear as ordinary as possible. I get confused or forget a part of what I intended to say - I get frightened: am I now going to be rejected?

On the basis of the preceding extract it seems that there also is a tendency among the PsPs to freeze, sense a feeling of "fogginess" and become alarmed in problematic situations. Their strategies of control, however, differed from those of the PPs, because although their purpose was likewise directed towards the passive avoidance of anxiety, they remained in the situation as unnoticed as possible. Their efforts to control anxiety-related emotions, seemingly, comprised pseudoactive elements which included reasoning and the attainment of self-control by means of primitive behavioral practices.

The interpretation of the reactions of others includes similar traits:

3: 47-50

I begin to fight with myself over whether I should allow myself to blush. [...] I'm ashamed about the fact that I've gone red and don't dare to look at the possible reactions of the others. I think that they look upon me as a fool, as there is no reasonable reason to be tense in such a

situation. I think the others are laughing at me and believe that I'm an idiot.

The self-presentation image of the PsPs was one-sided and negative as it was for the the PPs. The PsPs described themselves as foolish and stupid in the images of others and this threat of making a fool of themselves was an essential feature among them. Therefore, control strategies in relation to the environment were centred on sustaining self-respect in the eyes of others. The control again included pseudoactive elements, while at the same time remaining in the anxiety-provoking situation with the help of active mental effort, but without any practical elements. Despite their sense of shame their interpretation of others' reactions did not give rise to self-pity. Neither did their attitude include any suggestion of frustration directed towards others. The typical activity-model appears again in the next section:

9: 54-57

The relief after the situation is enormous. If I have badly messed something up, this will remain constantly in the forefront of my mind. Then I try to find something to do in order to forget the whole incident. Of course I hope for a miracle so that during the next presentation there wouldn't be any problems.

The resolutions and future plans of the PsPs appeared to be coherent with their processing-style in actual anxiety-provoking situations. Their control strategies were basically aimed at avoiding the internal arousal of anxiety-related emotions. Their magical expectations especially were reflected in a passivity and unwillingness to expose themselves to these emotions. The pseudoactive quality appeared again in efforts to attain self-control through behavioural practices that divert attention to other matters.

Group C: the Active Phobics (AP)

The third group consists of the most active participants of this sample. One of the clients describes her experiences in the anxiety-provoking situation:

4: 20-22

It feels like all my thoughts become confused. I feel completely anxious. I'm blushing for no any reason. I get angry, when I can't control my behaviour. I have to force myself to act. I try to breathe deeply and calmly. I remind myself that I have always managed before.

As seen in the preceding extract the APs tended to experience a feeling of foginess and became alarmed in anxiety-provoking situations as did the representatives of the other groups. A characteristic of this group, however, was that they usually maintained their ability to control the internal arousal of anxiety-related emotions despite the sense of losing control. They also maintained their ability to function using reasoning and by putting their thoughts and intentions into practice. The control-orientation of the APs, thus, included an active quality directed towards the problem and their efforts were aimed at self- and anxiety-management.

Their attitude towards others is consistent with the preceding view:

6: 57-61

I concentrate on controlling my symptoms. I am disappointed that it has happened again. On the other hand I feel happy, because it could have been worse. Initially the others look at me with the appropriate interest in what I'm going to say. Then I suppose my facial expressions and body language reveal that I'm tense. I assume that some of them are irritated by me, whilst others, perhaps tense themselves and do not notice anything out of the ordinary.

The self-presentation image of the APs differed from the other two groups mentioned in that the role of the evaluation of others was not so one-sided among them. The central point was the diversity of their orientation. In spite of the disabling experiences and a suspicious attitude towards others, the APs were oriented toward problem-solving and capable of seeing at least something positive in the anxiety-provoking situation. Their view, then, included both positive and negative elements. Because of their ability to feel tension and search for relief at

the same time, their perceptions were more diversified than in the other groups. The APs did not become wrapped up in themselves, rather they directed their resources towards their problem which enlarged their possibilities to cope with the situation.

The APs seemed to have the ability to widely consider the different aspects of the situation even after unpleasant experiences:

6: 78-82

I am relieved. I'm happy to get it over with. I know that I don't want to give in: I'm going to take up similar kinds of challenges in the future. I believe that I'll cope better and better as time goes on, and if I'm unsuccessful, I'll accept it as a part of my development-process. I'll prepare for new situations by reminding myself of a thought concerning the audience: "You (the audience) will see the good things in me."

This extract shows us the persistency and future-directedness of the APs. In spite of the consciousness of the fact that the anxiety will appear again, they did not freeze or become wrapped up in themselves. The anxiety-related emotions, then, did not prevent their efforts with regard to affecting change. The APs typically had relatively high personal demands concerning future achievement goals. In spite of this, they usually were capable of accepting possible failures in relation to their aims, and even to search for positive elements in these failures. Their attempts using images to work through forthcoming anxiety-provoking situations reflected the active quality of their control, which was directed towards self- and problem-management. Likewise, it reflected a decision to change and seek personal development.

Concluding Remarks

All three groups illustrated the tendency to avoid getting involved in anxiety-provoking situations. Also the "fogginess effect" of the anxiety-related emotions seemed to be obvious in

all of them. The main findings, however, concern differences in their reactions and in their control-activity of the anxiety-related emotions concomitant with this freezing effect. The PPs adopted a relatively passive control-model where the freezing effect was connected to a tendency to control the internal arousal of emotions by becoming wrapped up in themselves without attempting to resolve the situation. They tried rather to avoid experiencing these emotions when in anxiety-provoking situations. The PsPs aimed at avoiding the internal arousal of anxiety-related emotions but tried pseudoactively to control this arousal through rationalization and the use of primitive behavioral measures. In spite of the foginess effect, the APs maintained their ability to control the internal arousal of anxiety-related emotions. Their active quality of control towards such emotions included diversified reasoning with positive elements, often resulting in practical efforts to solve the problem.

The same differences in control-activity between the groups occurred again in relation to their self-presentation image. The PPs tried passively and in a biased fashion to control their anxiety-related emotions by avoiding meeting other people and by possibly directing their frustration passively toward others. The self-presentation image of the PsPs also was biased in nature, but their control strategies included some pseudoactive elements (e.g. mental effort without practical measures). Their attitude toward others did not reflect a sense of frustration. The active control-quality of the APs included both positive and negative elements. The positive pole partly "neutralized" the control and makes contact with the environment and change possible.

Reactions to the anxiety-provoking situations were coherent within the groups. The passive control-quality of the PPs typically involved waiting for the next annoying situation without attempting to resolve their problem. Therefore, tension and self-reproach remained. The pseudoactive control strategies of the PsPs included, on the one hand, passive and magical

wishes but on the other, active and compensatory behavioural practices. The goal-orientedness and active control-quality of the APs emerged as a future-oriented willingness to change.

Functioning in Anxiety-provoked Situations: a Suggestive Model

To this point we have focused on differences in control-activity. Next, we focus on the functional coherence focused of social phobics across anxiety-provoking situations. We model the common characteristics found in the present materials in figure 1.

[Insert Figure 1. about here]

The arousal of anxiety-related emotions is connected with perceptions of personally significant contextual factors. After recognizing these person-specific critical aspects, the individual becomes conscious about person-specific symptoms connected with anxiety. These symptoms include either physical or mental experiences. Usually, however, both poles are represented. Perceiving the symptoms triggers the need to control these unpleasant anxiety-related sensations.

This control is centred around the internal arousal of anxiety-related emotions, in other words, around private self-consciousness. The person is bound with internal unpleasant experiences. At the same time and despite their control strategies, the maintenance and sometimes even the intensification of the anxiety-related emotions directs the focus towards experiencing the symptoms as visible to others. This shifting focus places the person in a interpersonal role position and triggers the control of the self-presentation image. The person imagines him-/herself as odd in the image of others. The focus, thus, immediately changes from a private to a public self-consciousness.

As we see on the basis of the enclosed extracts, these two positions emerge simultaneously. They do not exist separately but in mutual interplay. This interplay is a continuous, complementary and progressive process in which the information represented in the other state

of self-consciousness forms the foundation for later interpretations. The final interpretation of the situation, then, arises as a consequence of the continuous and spiral interaction between private and public self-consciousness. The interpretation, furthermore, triggers person-specific passive, pseudoactive or active control strategies concerning anxiety-related emotions. The quality of control seems also to be reflected in future-directed efforts towards change.

The preceding extracts have shown that social phobics connect attentional disturbances with anxiety-provoking situations. This process, named fogginess, appears throughout the problematic situations as a blurring of internal processes, resulting in the sense of losing contact with the immediate environment. The fogginess obscures both private and public self-consciousness and is connected with the control of experiences. Control strategies, therefore, can primarily be seen as biased efforts to balance experiences.

We finally present a representative extract reflecting the common modes of action in anxiety-provoking situations reconstructed in the form of the suggestive model presented.

1: 55-90

In such situations its as if I was asleep, I can't hear or see anything, I don't even remember everything that I said. My heart begins to palpitate even before the presentation, I'm sweating, my mouth is wet. I'm restless, I have to change my position all the time, I can't chat with anybody. I start to go red. I'm in my own world. I'm afraid that somebody will notice that I'm tense. I'm ashamed of my red face and shaking hands. I feel oppressed with anxiety, I could run through the door and scream. I must look comical/sad. I try to remember to breathe calmly, so that I at least won't faint. Beforehand and during the situation I try to think about it as little as possible and to be indifferent towards it, I try to make myself be calm. Afterwards I'm disappointed, embarrassed and ashamed. Why did it happen again, even though I had prepared myself so well? I was angry with myself, I couldn't control myself. [...] I try to think

about the good aspects of my presentation but, unfortunately, all the bad parts push themselves to the front of my mind

Discussion

Two major findings arose from the present study. First, the qualitative analysis revealed a coherent process commonly underlying social phobia, namely the control of anxiety-related emotions concerning public and private self-consciousness. We present a tentative model concerning this functional coherence across anxiety-provoking situations. Second, in spite of similarities in basic processing, we found three groups that differed in their control-activity of anxiety-related emotions. We describe these differences on the basis of the narratives concerning actual anxiety-provoking situations.

We explored the basic processes underlying social phobia, especially in order to clarify whether the control of anxiety-related emotions is connected to private or public self-consciousness. Previously presented models concerning the nature of social phobia have been somewhat ambiguous concerning that question. In other words, control has been related either to internal arousal of emotions or to the self-presentation image. The process-model now formulated includes the notion that controlling anxiety-related emotions is connected equally to both private and public self-consciousness. The parts of self-consciousness are also in mutual interaction during the control-process. These findings are consistent with the suggestion of Guidano (1991), who notes:

"The self-consciousness should be regarded as an ontological process in which the ability to balance a distinction between immediate experience and its appraisal through interactions with others is matched by the ability to refer the experiencing "I" to the appraising "Me". Thus while being an event of our praxis of living that is at once discursive and actional, self-consciousness is always consciousness of others, existing

by means of language and within historical context. (p. 12)

Furthermore, Mahoney (1991) states that the sense of self in anxiety disorders is generally based on the experience of the self as both subject and object. The process, including multi-faceted control of emotions, regularly characterizes the sense of self amongst social phobics.

We hypothesize that this regularity reflects one of the fundamental general processes underlying social phobia. It has been stated that certain psychological functioning is basically constructed from reflections on core ordering processes (Mahoney, 1991) or syntactic rules (Guidano, 1991). Even if there is an idiosyncratic organization that lies in each of us and which in a specific way regulates our activities, self-organization would process itself in a similar manner for similar psychiatric problems (Guidano & Liotti, 1983). The foundation of these processes possibly lies in early interactional relationships in childhood.

It is possible that certain kinds of early interactional relationships and especially childhood attachment models could direct the development of a certain type of psychopathology. In their meta-analysis van IJzendoorn and Bakermans-Kranenburg (1996) find no systematic connections between adulthood clinical diagnoses and early attachment models. Jones (1996), however, summarizes preliminary findings by suggesting a fairly direct relation between them. With these ambiguous views in mind the discovery of possible connections between attachment and the basic processes underlying social phobia remains a challenge for future research.

The suggestive model includes a phenomenon named here as "fogginess". This process is connected with a sense of losing contact with a part of the immediate environment as well as a blurring of cognitive processes. We suggest that controlling anxiety-related emotions considerably binds resources and, therefore, disturbs the functioning of an individual in an anxiety-provoking situation regardless of the quality of the person's control-activity. This

appears in private self-consciousness, for example, in the sense of losing control while perceiving anxiety, which results in an anxious need to increase control and coincides with a blurring of cognitive processes. The control also disturbs the public self-consciousness by binding resources in order to control the imagined visibility of the symptoms which re-intensifies control efforts and the blurring effect again. It has been suggested that highly anxious individuals deploy more resources in response to threat-related information (Weinstein, 1995). Darke (1988) concluded that high levels of anxiety reduce the processing capacity of working memory. However, the model presented is still tentative and requires confirmatory findings from other data. Future studies should empirically investigate the presence and absence of its components.

As our second question we studied how the tendency to control anxiety-related emotions manifests itself in practical anxiety-provoking situations. Despite the uniformity presented in the suggestive model, there is also heterogeneity within our clinical group, especially concerning the individual control strategies. By analyzing the control-activity of anxiety-related emotions we found three groups differed in their functioning. No studies, as far as we know, have considered this kind of variety in practice. It seems possible that these between-group differences reflect the surface variation of person-specific interpretations and experiences in the anxiety-provoking situation. This variation and heterogeneity in processing can be seen as a representation of individual development and interaction which can differentiate at some point during adolescence or adulthood. The heterogeneity of control strategies, then, arises in a personal meaning construction process as a part of the individual development and interaction of the person. As Tyler (1985) notes, for any situation there may be several possible outcomes depending on how each individual has organized his/her multifarious world. Similarly, Neimeyer (1993) has expressed the view that human beings

individually co-constitute the meaning of their experiential world in which they then live and act. In keeping with these views, the processing of each socially phobic individual was internally consistent despite the between-group differences noted in our study.

Within each person, the control-activity appeared to be consistent in relation to both private and public self-consciousness. The quality also remained the same during and after the anxiety-provoking situation. We suppose that this consistency of control strategies reflects the general basic principles and coherence of the psychological functioning of a person. Human systems are characterized by a tendency to maintain their internal coherence and integrity (Maturana & Varela, 1987), leading individuals to act consistently in different contexts and conditions (Guidano & Liotti, 1983).

In summary, we suggest that there is a "cluster" of relatively homogeneous basic processes or rules underlying and maintaining social phobia. Despite this homogeneity, it is possible to differentiate between groups or individuals on the basis of their control-activity. This variation is possibly a surface representation of the basic processes originating from individual development and interaction. However, each person has a certain individually coherent style of processing.

Based on previous considerations, we conclude that differences in control-activity reflect person-specific coherence and should be taken into account when selecting and planning therapeutic strategies. We propose that the passive patients unwilling or unable to self-reflect would, at least at the beginning of treatment, benefit most from simple and concrete cognitive-behavioural strategies, whereas active patients with a good capacity for self-reflection could utilize more abstract cognitive-constructivist strategies. The personal processing-style has been observed to create a favorable influence in treatment (Greenberg et al., 1993). Sachse (1992) investigated the clients with different "clarifying"/ explication preparedness and found

that clients with a low level of preparedness were more difficult to treat because they were less receptive to constructive interventions. Future research, thus, needs to focus more on individual processing-styles and their influence on effective treatment.

Based on our work with socially phobic population, in general, we suggest that effective therapy includes components aiming at more acceptable attitude towards anxiety experienced in anxiety-provoking situations. Within the treatment, therefore, we try in close co-operation with the client to improve the flexibility of their personal processing-style by supporting their capability to self-reflectively associate alternative and less controllable meanings with anxiety.

Finally, some critical comments are warranted regarding this study and the overall findings. First, the majority of the participants in this study were females. In spite of the lifetime prevalence of social phobia in a 2-to-1 ratio of females to males in the general population (Schneier et al., 1992) the effects of gender on the results should be taken into consideration in future research. Second, the clustering of participants is always an artificial technique, which obscures individual variation. The qualitative differences between the capacity of individual descriptions should therefore also be considered. For example, compared to the other groups the Active Phobics possibly produced more nuances concerning their interpretations in relation, for example, to their emotions and their overview of the situation. In spite of the self-referential nature of experiencing (Guidano, 1991), the given explanations are deeply affected by consideration of language (Efran, Lukens & Lukens, 1988). The significance of verbal skills, then, should be considered in future studies.

The findings of this study have two main practical implications. First, multi-faceted control-activity reflected in attempts to cope with anxiety-related emotions should be taken into account in treatment. Second, it is necessary in a broader sense to study the connections between the characteristics of self-organization and the benefits resulting from treatment. It

also is important to consider the possible treatment-related change-processes concerning person-specific properties between pre- and post-therapy conditions. Qualitative analysis of treatment-related phenomena seems essential, because tracking the central elements of individual functioning in therapy could be the next step towards developing more personal-directed methods in cognitive-constructivist treatment and psychotherapy.

References

- Agras, W. S. (1990). Treatment of social phobias. Journal of Clinical Psychiatry, 51, 52-58.
- Alden, L. E. & Wallace, S. T. (1995). Social phobia and social appraisal in successful and unsuccessful social interactions. Behaviour Research and Therapy, 33, 497-505.
- American Psychiatric Association (1994). Diagnostic and Statistic Manual of Mental-Disorders (4th ed.). Washington, DC: Author.
- Beck, A. T., Emery, G. & Greenberg, L. S. (1985). Anxiety disorders and phobias: A cognitive perspective. New York: Basic Books.
- Butler, G., Cullington, A., Munby, Y. M., Amies, P. & Gelder, M. (1984). Exposure and anxiety management in the treatment of social phobia. Journal of Consulting and Clinical Psychology, 52, 642-650.
- Chambless, D. L. & Gillis, M. M. (1993). Cognitive therapy of anxiety disorders. Journal of Consulting and Clinical Psychology, 61, 248-260.
- Cloitre, M., Heimberg, R. G., Liebowitz, M. R. & Gitow, A. (1992). Perceptions of control in panic disorder and social phobia. Cognitive Therapy and Research, 16, 569-577.
- Darke, S. (1988). Anxiety and working memory capacity. Cognition and Emotion, 2, 145-154.
- Dey, I. (1993). Qualitative Data Analysis; A user-friendly guide for social scientists. London: Routledge.
- Efran, J., Lukens, R & Lukens, M. (1988). Constructivism: What's in it for you?. The Family Therapy Networker, 12, 26-35.
- Fenigstein, A., Scheier, M. F. & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. Journal of Consulting and Clinical Psychology, 43, 522-527.

Fenigstein, A. (1979) Self-consciousness, self-attention and social interaction. Journal of Personality and Social Psychology, 37, 75-86.

Gergen, K. (1982). Toward transformation in social knowledge. New York: Springer Verlag.

Greenberg, L. S., Rice, L. N. & Elliott, R. (1993). Facilitating emotional Change: The moment-by-moment process. New York: The Guilford Press.

Guidano, V. F. (1991). The self in process. Toward a post-rationalist cognitive therapy. New York: The Guilford Press.

Guidano, V. F. (1995). Constructivist psychotherapy: A theoretical framework. In R. A. Neimeyer & M. J. Mahoney (eds.). Constructivism in psychotherapy. Washington, DC: American Psychological Association.

Guidano, V. F. & Liotti, G. (1983). Cognitive processes and emotional disorders: A structural approach to psychotherapy. New York: The Guilford Press.

Heimberg, R. G., Salzman, D. G., Holt, C. S. & Blendell, K. T. (1993). Cognitive-behavioral group treatment for social phobia: Effectiveness at five-year follow-up. Cognitive Therapy and Research, 17, 325-339.

Hibbert, G. (1984). Ideational components of anxiety; Their origin and content. British Journal of Psychiatry, 144, 618-624.

Hope, D. A. & Heimberg, R. G. (1988) Public and private self-consciousness and social phobia. Journal of Personality Assessment, 52, 626-639.

Hope, D. A., Rapee, R. M., Heimberg, R. G. & Dombek, M. J. (1990). Representations of the self in social phobia: Vulnerability to social threat. Cognitive Therapy and Research, 14, 177-189.

Jones, E. E. (1996). Introduction to the special section on attachment and psychopathology: Part I. Journal of Consulting and Clinical Psychology, *64*, 5-7.

Mahoney, M. J. (1985). Psychotherapy and human change processes. In M. Mahoney & A. Freeman (eds.). Cognition and Psychotherapy. New York: Plenum Press.

Mahoney, M. J. (1991). Human change processes: The scientific foundations of psychotherapy. New York: Basic Books.

Mahoney, M. J. (1995a). Continuing evolution of the cognitive sciences and psychotherapies. In R. A. Neimeyer & M. J. Mahoney (eds.). Constructivism in psychotherapy. Washington, DC: American Psychological Association.

Mahoney, M. J. (1995b). Theoretical developments in the cognitive psychotherapies. In M. J. Mahoney (ed.) Cognitive and Constructive Psychotherapies: Theory, Research and Practice. New York: Springer Publishing Company.

Mattick, R. P. & Peters, L. (1988). Treatment of severe social phobia: Effects of guided exposure with and without cognitive restructuring. Journal of Consulting and Clinical Psychology, *56*, 251-260.

Mattick, R. P., Peters, L. & Clarke, J. C. (1989). Exposure and cognitive restructuring for social phobia: A controlled study. Behavior Therapy, *20*, 3-23.

Maturana, H. R. & Varela, F. J. (1987). The tree of knowledge. Boston: Shambala.

Mersch, P. P. A., Emmelkamp, P. M. G., Bögels, S. M., & van der Sleen, J. (1989). Social phobia: Individual response patterns and the effects of behavioral and cognitive interventions. Behaviour Research and Therapy, *27*, 421-434.

Miles, M. B. & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook (2nd edn). Thousand Oakes: SAGE.

Neimeyer, R. A. (1993). An appraisal of constructivist psychotherapies. Journal of

Consulting and Clinical Psychology, 61, 221-234.

Sachse, R. (1992). Differential effects of processing proposals and content references on the explication process of clients with different starting conditions. Psychotherapy Research, 2, 235-251.

Schneier, F. R., Johnson, J., Hornig, C. D., Liebowitz, M. R. & Weissman, M. M. (1992). Social phobia: Comorbidity and morbidity in an epidemiologic sample. Archives of General Psychiatry, 49, 4, 282-288.

Schlenker, B. R., & Leary, M. R. (1982). Social anxiety and self-presentation: A conceptualization and model. Psychological bulletin, 92, 641-669.

Stopa, L. & Clark, D. M. (1993). Cognitive processes in social phobia. Behaviour Research and Therapy, 31, 255-267.

Sulkunen, P. & Kekäläinen, O. (1992). Wp-index 1.0; Kevyt ratkaisu raskaan työn ongelmiin. Laadullisen aineiston analyysiohjelma; käytön opas. [Wp-index 1.0. A light solution to the problems of hard work. The analysis-programme of qualitative materials; user-guide.]. Helsinki: Gaudeamus.

Thompson, S. C. (1981). Will it hurt less if I can control it? A complex answer to a simple question. Psychological Bulletin, 90, 89-101.

Toskala, A. (1988). Kahvikuppineurootikkojen ja paniikkiagorafaobikkojen minäkuvat minäsystemin rakenteina ja kognitiivisen oppimisterapian perustana. (Doctoral dissertation, University of Jyväskylä, 1988). [The self-images of coffee cup neurotics and panic agoraphobics as structures of a self-system and a basis for learning therapy.]. Jyväskylä studies in education, psychology and social research 66. Jyväskylä: Jyväskylän yliopisto.

Toskala, A. (1991). Kognitiivisen psykoterapian teoreettisia perusteita ja sovelluksia. [Theoretical basics and practical adaptations of cognitive psychotherapy.]. Saarijärvi: Jyvä-

kylän koulutuskeskus.

Tyler, L. (1985). Personal construct theory and the rest of psychology. In F. Epting & A.W. Landfield (eds.) Anticipating Personal Construct Psychology. Lincoln: University of Nebraska Press.

van Ijzendoorn, M. H. & Bakermans-Kranenburg, M. J. (1996). Attachment representations in mothers, fathers, adolescents and clinical groups: a meta-analytic search for normative data. Journal of Consulting and Clinical Psychology, 64, 8-21.

Wahlström, J. (1992). Merkitysten muodostuminen ja muuttuminen perheterapeuttisessa keskustelussa (Doctoral dissertation, Jyväskylä University, 1992). [Semantic change in family therapy.]. Jyväskylä studies in education, psychology and social research, 94.

Watson, D. (1967). Relationship between locus of control and anxiety. Journal of Personality and social psychology, 6, 91-92.

Weinstein, A. M. (1995). Visual ERPs evidence for enhanced processing of threatening information in anxious university students. Biological Psychiatry, 37, 847-858.

Wolpe, J. (1973) The practice in behavior therapy. New York: Pergamon Press.

Woody, S. R. (1996). Effects of focus of attention on anxiety levels and social performance of individuals with social phobia. Journal of Abnormal Psychology, 105, 61-69.

Author Note

Petri Mäntynen, Department of Psychology; Juha Happonen, Department of Psychology; Antero Toskala, Department of Psychology.

This study was supported by the University of Jyväskylä and is part of an ongoing Change Processes in Psychotherapy -project conducted at the Department of Psychology, University of Jyväskylä, Jyväskylä, Finland. I would like to thank Jarl Wahlström for helpful comments on the manuscript and Asko Tolvanen for methodological assistance. I also thank Stephen Lord and Anya Siddiqi, who checked grammar.

Correspondence concerning this article should be addressed to Petri Mäntynen, Department of Psychology, University of Jyväskylä, Post Office Box 35, SF-40351, Jyväskylä, Finland. Electronic mail may be sent in E-mail address: PETRI.MANTYNEN@NTC.NOKIA.COM

Table 1.

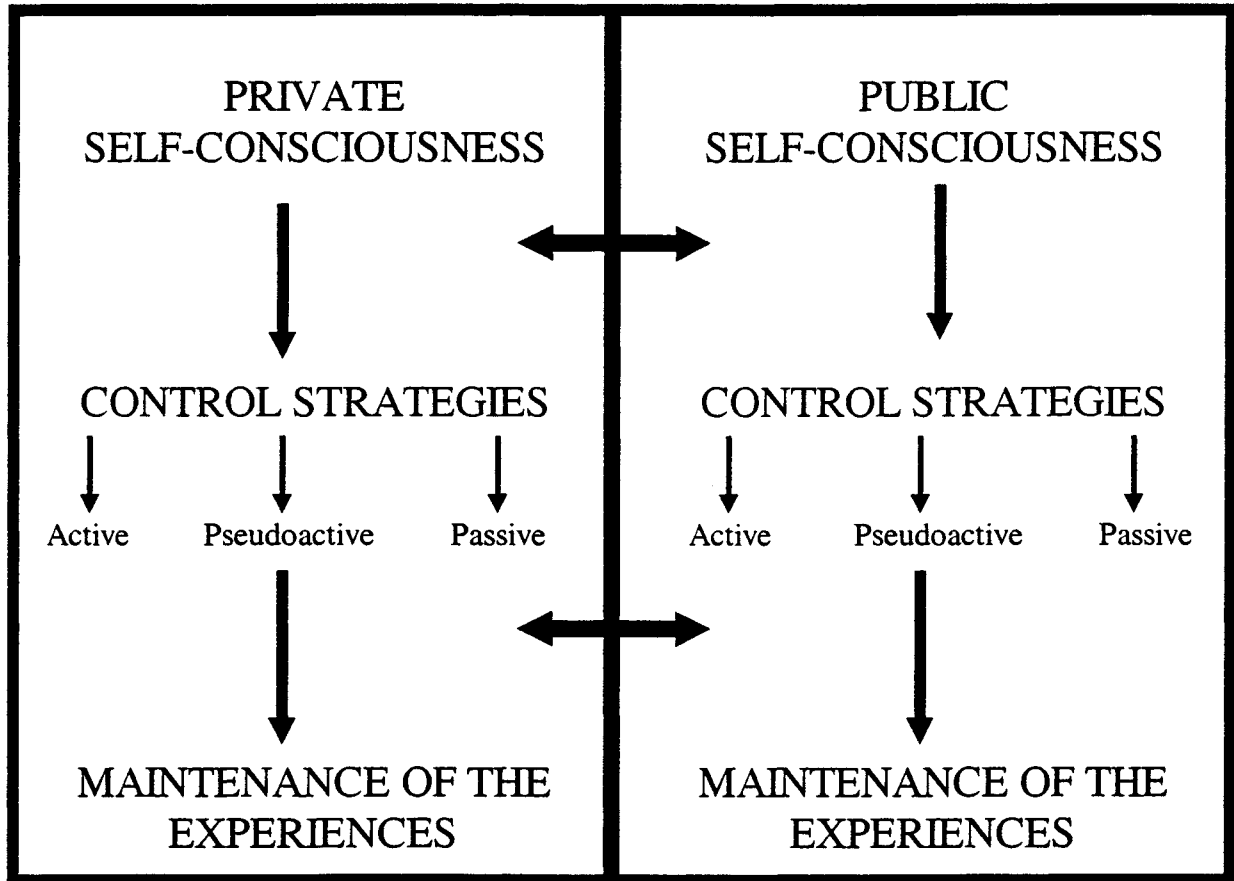
Categories used in the classification of the contents of the narratives

Context-related factors	The reactions of others	Emotions during the situation	Control	Threat-related images	Emotions after the situation	Future-directedness
Self-evaluation	Discrepancy	Shame	Management	Paralysis	Relief	Perfectionism
Anticipation	Evaluation	Anger	Concealment	Physical reaction	Self-reproach	Exposure
Demands	Positiveness	Self-reproach	Rationalization	Avoidance	Distress	Decision
Comparison	Silliness	Distress	Activity	Worthlessness		Oblivion
	Pitifulness	Positiveness	Stealing oneself	Losing control		Suspension
		Helplessness	Avoidance	Non-threat-related		Magical wishes
		Paralysis		images		
		Uncertainty				

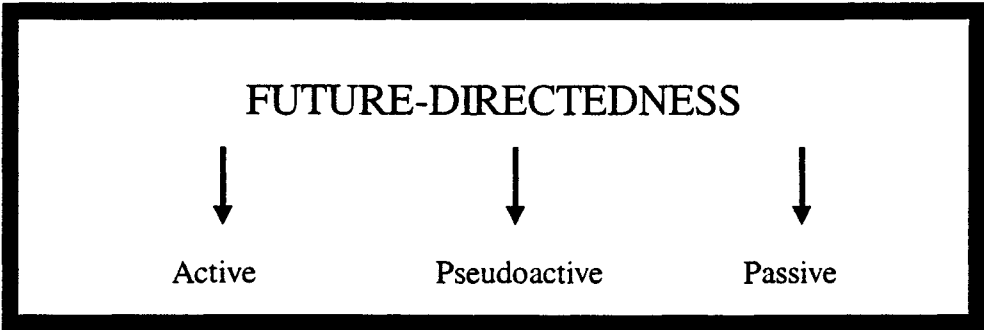
Figure caption

Figure 1. Functional coherence of social phobics across anxiety-provoking situations: A tentative model.

SELF-SPECIFIC
CONTEXTUAL FACTORS
AROUSING THE ANXIETY



F
O
G
G
I
N
E
S
S



STUDIES IN SPORT, PHYSICAL EDUCATION AND HEALTH

- 1 KIRJONEN, JUHANI, On the description of a human movement and its psychophysical correlates under psychomotor loads. 48 p. 1971.
- 2 KIRJONEN, JUHANI JA RUSKO, HEIKKI, Liikkeen kinemaattisista ominaispiirteistä, niiden psykofyysisistä selitysyhteyksistä ja näiden muutoksista psykomotorisen kuormituksen ja kestävyysharjoittelun vaikutuksesta. - On the kinematic characteristics and psychophysical correlates of a human movement and their changes during psychomotor loading and endurance conditioning. 156 p. 1971.
- 3 SARVIHARJU, PEKKA J., Effects of psychophysical loading and progressive endurance conditioning on selected biochemical correlates of adaptive responses in man. 95 p. 1973.
- 4 KIVIAHO, PEKKA, Sport organizations and the structure of society. 54 p. 1973.
- 5 KOMI, PAAVO V., NELSON, RICHARD C. AND PULLI, MATTI, Biomechanics of skijumping. 53 p. 1974.
- 6 METELI, Työolot, terveys ja liikuntakäyttämisen metallitehtaissa. Kartoittavan kyselyn aineistot ja toteuttaminen. 178 p. 1974.
- 7 TIAINEN, JORMA M., Increasing physical education students' creative thinking. 53 p. 1976.
- 8 RUSKO, HEIKKI, Physical performance characteristics in Finnish athletes. 40 p. 1976.
- 9 KIISKINEN, ANJA, Adaptation of connective tissues to physical training in young mice. 43 p. 1976.
- 10 VUOLLE, PAULI, Urheilu elämänsäiltönä. Menestyneiden urheilijoiden elämänsä kilpailuvuosina - Top sport as content of life. 227 p. 1977.
- 11 SUOMINEN, HARRI, Effects of physical training in middle-aged and elderly people with special regard to skeletal muscle, connective tissue, and functional aging. 40 p. 1978.
- 12 VIITASALO, JUKKA, Neuromuscular performance in voluntary and reflex contraction with special reference to muscle structure and fatigue. 59 p. 1980.
- 13 LUHTANEN, PEKKA, On the mechanics of human movement with special reference to walking, running and jumping. 58 p. 1980.
- 14 LAAKSO, LAURI, Lapsuuden ja nuoruuden kasvuympäristö aikuisiän liikuntaharrastusten selittäjänä: retrospektiivinen tutkimus. - Socialization environment in childhood and youth as determinant of adult-age sport involvement: a retrospective study. 295 p. 1981.
- 15 BOSCO, CARMELO, Stretch-shortening cycle in skeletal muscle function with special reference to elastic energy and potentiation of myoelectrical activity. 64 p. 1982.
- 16 OLIN, KALEVI, Päätöksentekijöiden viite-ryhmät kaupunkien liikuntapolitiikassa. - Reference groups of decision-makers in the sport politics of cities. 155 p. 1982.
- 17 KANNAS, LASSE, Tupakointia koskeva terveyskasvatus peruskoulussa. - Health education on smoking in the Finnish comprehensive school. 251 p. 1983.
- 18 Contribution of sociology to the study of sport. Festschrift Book in Honour of Professor Kalevi Heinilä. Ed. by OLIN, K. 243 p. 1984.
- 19 ALÉN, MARKKU, Effects of self-administered, high-dose testosterone and anabolic steroids on serum hormones, lipids, enzymes and on spermatogenesis in power athletes. 75 p. 1985.
- 20 HÄKKINEN, KEIJO, Training and detraining adaptations in electromyographic, muscle fibre and force production characteristics of human leg extensor muscles with special reference to prolonged heavy resistance and explosive type strength training. 106 p. 1986.
- 21 LAHTINEN, ULLA, Begåvningshandikappad ungdom i utveckling. En uppföljningstudie av funktionsförmåga och fysisk aktivitet hos begåvningshandikappade ungdomar i olika livsmiljöer. 300 p. 1986.
- 22 SILVENNOINEN, MARTTI, Koululainen liikunnan harrastajana: liikuntaharrastusten ja liikuntamotiivien sekä näiden yhteyksien muuttuminen iän mukana peruskoululaisilla ja lukiolaisilla. - Schoolchildren and physically active interests: The changes in interests in and motives for physical exercise related to age in Finnish comprehensive and upper secondary schools. 226 p. 1987.
- 23 POHJOLAINEN, PERTTI, Toimintakykyisyys, terveydentila ja elämäntyyli 71-75-vuotiailla miehillä. - Functional capacity, health status and life-style among 71-75 year-old men. 249 p. Summary 13 p. 1987.
- 24 MERO, ANTTI, Electromyographic activity, force and anaerobic energy production in sprint running; with special reference to different constant speeds ranging from submaximal to supramaximal. 112 p. Tiivistelmä 5 p. 1987.
- 25 PARKATTI, TERTTU, Self-rated and clinically measured functional capacity among women and men in two age groups in metal industry. 131 p. Tiivistelmä 2 p. 1990.
- 26 HOLOPAINEN, SINIKKA, Koululaisten liikuntataidot. - The motor skills of schoolboys and girls. 217 p. Summary 6 p. 1990.
- 27 NUMMINEN, PIRKKO, The role of imagery in physical education. 131 p. Tiivistelmä 10 p. 1991.
- 28 TALVITIE, ULLA, Aktiivisuuden ja omatoimisuuden kehittäminen fysioterapian tavoitteena. Kehittävän työntutkimuksen sovellus lääkintävoimistelijan työhön. - The development of activity and self-motivation as the aim of physiotherapy. The application of developmental work research in physiotherapy. 212 p. Summary 8 p. 1991.

STUDIES IN SPORT, PHYSICAL EDUCATION AND HEALTH

- 29 KAHILA, SINIKKA, Opetusmenetelmän merkitys prososiaalisessa oppimisessa - auttamiskäyttäytymisen edistäminen yhteistyöskentelyn avulla koululiikunnassa. - The role of teaching method in prosocial learning - developing helping behavior by means of the cooperative teaching method in physical education. 132 p. Summary 2 p. 1993.
- 30 LIIMATAINEN-LAMBERG, ANNA-ESTER, Changes in student smoking habits at the vocational institutions and senior secondary schools and health education. 195 p. Yhteenveto 5 p. 1993.
- 31 KESKINEN, KARI LASSE, Stroking characteristics of front crawl swimming. 77 p. Yhteenveto 2 p. 1993.
- 32 RANTANEN, TAINA, Maximal isometric strength in older adults. Cross-national comparisons, background factors and association with Mobility. 87 p. Yhteenveto 4 p. 1994.
- 33 LUSA, SIRPA, Job demands and assessment of the physical work capacity of fire fighters. 91 p. Yhteenveto 4 p. 1994.
- 34 CHENG, SULIN, Bone mineral density and quality in older people. A study in relation to exercise and fracture occurrence, and the assessment of mechanical properties. 81 p. Tiivistelmä 1 p. 1994.
- 35 KOSKI, PASI, Liikuntaseura toimintaympäristössään. - Sports club in its organizational environment. 220 p. Summary 6 p. 1994.
- 36 JUPPI, JOEL, Suomen julkinen liikuntapolitiikka valtionhallinnon näkökulmasta vuosina 1917-1994. - Public sport policy in Finland from the viewpoint of state administration in 1917-1994. 358 p. Summary 7 p. 1995.
- 37 KYRÖLÄINEN, HEIKKI, Neuromuscular performance among power- and endurance-trained athletes. 82 p. Tiivistelmä 3 p. 1995.
- 38 NYANDINDI, URSULINE S., Evaluation of a school oral health education programme in Tanzania: An ecological perspective. 88 p. Tiivistelmä 2 p. 1995.
- 39 HEIKINARO-JOHANSSON, PILVIKKI, Including students with special needs in physical education. 81 p. Yhteenveto 4 p. 1995.
- 40 SARLIN, EEVA-LIISA, Minäkokemuksen merkitys liikuntamotivaatiotekijänä. - The significance of self perception in the motivational orientation of physical education. 157 p. Summary 4 p. 1995.
- 41 LINTUNEN, TARU, Self-perceptions, fitness, and exercise in early adolescence: a four-year follow-up study. 87 p. Yhteenveto 5 p. 1995.
- 42 SIPILÄ, SARIANNA, Physical training and skeletal muscle in elderly women. A study of muscle mass, composition, fiber characteristics and isometric strength. 62 p. Tiivistelmä 3 p. 1996.
- 43 ILMANEN, KALERVO, Kunnat liikkeellä. Kunnallinen liikuntahallinto suomalaisen yhteiskunnan muutoksessa 1919-1994. - Municipalities in motion. Municipal sport administration in the changing Finnish society 1919-1994. 285 p. Summary 3 p. 1996.
- 44 NUMMELA, ARI, A new laboratory test method for estimating anaerobic performance characteristics with special reference to sprint running. 80 p. Yhteenveto 4 p. 1996.
- 45 VARSTALA, VÄINÖ, Opettajan toiminta ja oppilaiden liikunta-aktiivisuus koulun liikuntatunnilla. - Teacher behaviour and students' motor engagement time in school physical education classes. 138 p. Summary 4 p. 1996.
- 46 POSKIPARTA, MARITA, Terveysneuvonta, oppimaan oppimista. Videotallenteet hoitajien terveysneuvonnan ilmentäjinä ja vuorovaikutustaitojen kehittämismenetelmänä. - Health counselling, learning to learn. Videotapes expressing and developing nurses' communication skills. 159 p. Summary 6 p. 1997.
- 47 SIMONEN, RIITTA, Determinants of adult psychomotor speed. A study of monozygotic twins. - Psykomotorisen nopeuden determinantit identtisillä kaksosilla. 49 p. Yhteenveto 2 p. 1997.
- 48 NEVALA-PURANEN, NINA, Physical work and ergonomics in dairy farming. Effects of occupationally oriented medical rehabilitaton and environmental measures. 80 p. (132 p.) 1997.
- 49 HEINONEN, ARI, Exercise as an Osteogenic Stimulus. 69 p. (160 p.) Tiivistelmä 1 p. 1997.
- 50 VUOLLE, PAULI (Ed.) Sport in social context by Kalevi Heinilä. Commemorative book in Honour of Professor Kalevi Heinilä. 200 p. 1997.
- 51 TUOMI, JOUNI, Suomalainen hoitotiedekeskustelu. - The genesis of nursing and caring science in Finland. 218 p. Summary 7 p. 1997.
- 52 TOLVANEN, KAIJA, Terveyttä edistävän organisaation kehittäminen oppivaksi organisaatioksi. Kehitysnäytökset ja kehittämistehtävät terveyskeskuksen muutoksen virittäjänä. - Application of a learning organisation model to improve services in a community health centre. Development examples and development tasks are the key to converting a health care. 197 p. Summary 3 p. 1998.
- 53 OKSA, JUHA, Cooling and neuromuscular performance in man. 61 p. (121 p.) Yhteenveto 2 p. 1998.
- 54 GIBBONS, LAURA, Back function testing and paraspinal muscle magnetic resonance image parameters: their associations and determinants. A study on male, monozygotic twins. 67 p (128 p.) Yhteenveto 1p. 1998.

STUDIES IN SPORT, PHYSICAL EDUCATION AND HEALTH

- 55 NIEMINEN, PIPSA, Four dances subcultures. A study of non-professional dancers' socialization, participation motives, attitudes and stereotypes. - Neljä tanssin alakulttuuria. Tutkimus tanssinharrastajien tanssiin sosiaalistumisesta, osallistumismotiiveista, asenteista ja stereotyyppioista. 165 p. Yhteenveto 4 p. 1998.
- 56 LAUKKANEN, PIA, Iäkkäiden henkilöiden selviytyminen päivittäisistä toiminnoista. - Carrying out the activities of daily living among elderly people. 130 p. (189 p.). Summary 3 p. 1998.
- 57 AVELA, JANNE, Stretch-reflex adaptation in man. Interaction between load, fatigue and muscle stiffness. 87 p. Yhteenveto 3 p. 1998.
- 58 SUOMI, KIMMO, Liikunnan yhteissuunnittelu-metodi. Metodien toimivuuden arviointi Jyväskylän Huhtasuo lähiössä. - Collaborative planning method of sports culture. Evaluation of the method in the Huhtasuo suburb of the city of Jyväskylä. 190 p. Summary 8 p. 1998.
- 59 PÖTSÖNEN, RIIKKA, Naiseksi, mieheksi, tietoiseksi. Koululaisten seksuaalinen kokeneisuus, HIV/AIDS-tiedot, -asenteet ja tiedonlähteet. - Growing as a woman, growing as a man, growing as a conscious citizen. 93 p. (171 p.). Summary 3 p. 1998.
- 60 HÄKKINEN, ARJA, Resistance training in patients with early inflammatory rheumatic diseases. Special reference to neuromuscular function, bone mineral density and disease activity. - Dynaamisen voimaharjoittelun vaikutukset nivelreumaa sairastavien potilaiden lihasvoimaan, luutihyeyteen ja taudin aktiivisuuteen. 62 p. (119 p.) Yhteenveto 1 p. 1999.
- 61 TYNJÄLÄ, JORMA, Sleep habits, perceived sleep quality and tiredness among adolescents. A health behavioural approach. - Nuorten nukkumistottumukset, koettu unen laatu ja väsyneisyys. 104 p. (167 p.) Yhteenveto 3 p. 1999.
- 62 PÖNKKÖ, ANNELI, Vanhemmat ja lastentarhanopettajat päiväkotilasten minäkäsityksen tukena. - Parents' and teachers' role in self-perception of children in kindergartens. 138 p. Summary 4 p. 1999.
- 63 PAAVOLAINEN, LEENA, Neuromuscular characteristics and muscle power as determinants of running performance in endurance athletes with special reference to explosive-strength training. - Hermolihasjärjestelmän toimintakapasiteetti kestävyysuorituskykyä rajoittavana tekijänä. 88 p. (138 p.) Yhteenveto 4 p. 1999.
- 64 VIRTANEN, PAULA, Effects of physical activity and experimental diabetes on carbonic anhydrase III and markers of collagen synthesis in skeletal muscle and serum. 77 p. (123 p.) Yhteenveto 2 p. 1999.
- 65 KEPLER, KAILI, Nuorten koettu terveys, terveystyötyytyminen ja sosiaalistumisympäristö Virossa. - Adolescents' perceived health, health behaviour and socialisation environment in Estonia. - Eesti noorte tervis, tervisekäitumine ja sotsiaalne keskkond. 203 p. Summary 4p. Kokkuvõte 4 p. 1999
- 66 SUNI, JAANA, Health-related fitness test battery for middle-aged adults with emphasis on musculoskeletal on motor tests. 96 p. (165 p.) Yhteenveto 2 p. 2000.
- 67 SYRJÄ, PASI, Performance-related emotions in highly skilled soccer players. A longitudinal study based on the IZOF model. 158 p. Summary 3 p. 2000.
- 68 VÄLIMAA, RAILI, Nuorten koettu terveys kyselyaineistojen ja ryhmähaastattelujen valossa. - Adolescents' perceived health based on surveys and focus group discussions. 208 p. Summary 4p. 2000.

STUDIES IN SPORT, PHYSICAL EDUCATION AND HEALTH 68

Raili Välimaa

Nuorten koettu terveys kyselyaineistojen
ja ryhmähaastattelujen valossa

Esitetään Jyväskylän yliopiston liikunta- ja terveystieteiden tiedekunnan suostumuksella
julkisesti tarkastettavaksi yliopiston vanhassa juhlasalissa (S 212)
helmikuun 26. päivänä 2000 kello 12.



UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 2000

Nuorten koettu terveys kyselyaineistojen ja ryhmähaastattelujen valossa

STUDIES IN SPORT, PHYSICAL EDUCATION AND HEALTH 68

Raili Välimaa

Nuorten koettu terveys kyselyaineistojen
ja ryhmähaastattelujen valossa



UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 2000

Editors

Harri Suominen

Department of Health Sciences, University of Jyväskylä

Pekka Olsbo, Marja-Leena Tynkkynen

Publishing Unit, University Library of Jyväskylä

Cover picture:

Le jugement de Pâris

Louvre

©Photo RMN - Jean ; J. Schormans

ISBN 951-39-0647-7

ISSN 0356-1070

Copyright © 2000, by University of Jyväskylä

Jyväskylä University Printing House, Jyväskylä
and ER-Paino Ky, Lievestuore 2000