Social Anxiety in Slovene Adolescents: Psychometric Properties of a New Measure, Age Differences and Relations with Self-Consciousness and Perceived Incompetence

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SUMMARY

The study examined age and sex differences in social anxiety in different periods of adolescence and the relations between adolescents' social anxiety, self-consciousness and perception of self-incompetence. A new measure for assessing social anxiety in adolescence was constructed for this purpose. 325 subjects participated in the study: early (age 12), middle (age 16) and late (age 20) adolescents answered 36 test items of the newly developed Social Anxiety Scale for Adolescents (SASA) and were administered measures of self-consciousness (Imaginary Audience Scale, Self-Consciousness Scale) and perceived incompetence (Perceived Incompetence Scale, Perceived Social Incompetence Scale). Factor analysis yielded two social anxiety factors: Apprehension and Fear of Negative Evaluation decreased with adolescents' age and was more present in females than males, while Tension and Inhibition in Social Contacts did not differentiate either between the three age groups or between sexes. The two forms of social anxiety correlated moderately to highly with self-consciousness and perceived global and social incompetence.

RESUME

On a examine les différences d'anxiété sociale liées à l'âge et au sexe au cours de l'adolescence, et les rapports de cette anxiété avec la focalisation sur soi et la perception de soi comme étant incompétent. Une nouvelle mesure de l'anxiété sociale à l'adolescence a été construite. Les 325 adolescents participant à l'étude appartenaient à trois groupes d'âge : la prime, la moyenne et la grande adolescence (âgés respectivement en moyenne de 12, 16 et 20 ans). Ils ont répondu aux 36 items de la nouvelle Échelle d'Anxiété Sociale pour Adolescents. D'autres échelles on permis d'évaluer l'audience imaginaire, la focalisation sur soi, ainsi que les perceptions de soi comme étant globalement incompétent ou socialement incompétent. L'analyse factorielle a fait apparaître deux facteurs d'anxiété sociale : (a) l'apprehension et la peur d'être mal évalué, et (b) la tension et l'inhibition dans les contacts sociaux. La première de ces deux formes d'anxiété, qui était plus élevée chez les filles, s'est avérée diminuer avec l'âge. Les deux formes d'anxiété étaient plus ou moins fortement corrélées avec la focalisation sur soi et les perceptions de soi comme étant globalement ou socialement incompétent.

Keywords:
Social anxiety, self-consciousness, perceived incompetence, adolescence.

Social anxiety as a state of emotional distress, apprehension and avoiding behaviour in real or imagined social interactions has seldom been the subject of research on adolescence. Empirical studies of social anxiety were mostly directed toward its influence on interpersonal behaviour, its relations to other psychological phenomena such as self-consciousness, self-esteem, loneliness or self-management, and extreme social anxiety in clinical settings (Leary, 1991). However, social anxiety in adolescents seems important enough to draw researchers' attention since it is related to numerous problems, especially to impaired social functioning and negative self-perceptions. Socially anxious adolescents may experience troubles in peer relationships (La Greca & Lopez, 1998; Vemberg, Abwender, Ewell, & Beery, 1992) and inhibition in developing public individuation (Ryan & Kuczowski, 1994). They were also found to be submissive and nondominant in social relationships (Walters & Inderbitzen, 1998). Furthermore, socially anxious students may experience difficulties in school performance. It may be hard for them to express opinions or to ask for help from teacher in front of classmates. In a previous study (Puklek, 1997), we found that socially anxious students reported more disturbing factors and negative intrusive thoughts during their verbal
adolescents. Children with neglected and rejected peer studies using this scale showed that social anxiety might be distinguished between distress and inhibition with unknown aspects of social anxiety. SASC-R comprises worry about negative evaluation, distress and avoidance, which refer mainly to the social interaction with peers. Unlike Watson and Friend's SAD scale, SASC-R also discriminates between distress and inhibition with unknown peers and generalized social distress and avoidance. The studies using this scale showed that social anxiety might impede adaptive social functioning of children and early adolescents. Children with neglected and rejected peer status reported more social anxiety, i.e. concerns about negative evaluation from peers, than their average and popular classmates (La Greca et al., 1993). Accordingly, neglected children reported the highest level of social distress and avoidance with new peers among the four social-status groups. Socially anxious children and preadolescents perceived themselves as socially less accepted and having lower self-worth than their socially less anxious age-mates (La Greca & Stone, 1993; Ginsburg, La Greca, & Silverman, 1998). The study of Vernberg, Abwender, Ewell and Beery (1992) showed that early adolescents who entered a new school and expressed general social distress and avoidance, had troubles with establishing companionship and maintaining intimacy with new friends.

The above mentioned studies established the necessity of distinguishing between different aspects of social anxiety, as they relate to children's and adolescents' social functioning in different ways. However, these studies mostly focused on childhood and early adolescence. Less is known about the prevalence of experiencing social anxiety from early to late adolescence, as well as about possible age and sex differences in different forms of social anxiety in this age-period. Until very recently, there had been no widely used measure of social anxiety in adolescence. Thus, the first aim of this study was to construct a scale designed to measure subjective experience and different behaviors in social situations that represent social anxiety in adolescence. In our pilot study on social anxiety in Slovene adolescents (Puklek, 1994), we interviewed 47 adolescents of different ages. The interview referred to different situations of possible social evaluation — the adolescent was questioned about his/her real or imagined feelings and thoughts in a given situation. The results showed that typical social situations provoking anxious feelings and reticent behaviour in Slovene adolescents were being in the centre of other's attention, performing publicly, exposing oneself in front of a class, interacting with an unknown peer and going along to a party. Adolescents also reported fear of peers' criticism and rejection, fear of one's failure or inadequacy that would cause peers' jeering, fear of intrusion by other peers, fear of performance failure, fear of audience criticism and embarrassment in interaction with unknown opposite-sex peer. The majority of test items for the new measure of social anxiety in adolescence were developed on the basis of those answers. The present study aimed to examine the structure and internal consistency of the new scale. In addition, the content of items and factor structure of the new social anxiety scale were compared to the modification of the La Greca's scale SASC-R for use with adolescents (SAS-A; La Greca & Lopez, 1998).

### Social Anxiety, Self-Consciousness and Self-Perceptions

Schlenker and Leary, authors of self-presentational model of social anxiety, stated that social anxiety appears in social interactions where a person perceives or anticipates social evaluation and at the same time doubts in satisfactory evaluations from others (Leary & Schlenker, 1981; Schlenker & Leary, 1982). Excessive engagement with social image and low self-reliance thus seem to be important determinants of social anxiety. Many studies found consid-
erable positive association between social anxiety and public self-consciousness, low self-esteem and negative perceptions of one's own social competence (Crozier, 1981; Feningstein, Scheier, & Buss, 1975; Riggio, 1986; for a review see also Cheek & Melchior, 1990). The studies involving adolescents confirmed these associations (Crozier, 1995; La Greca & Stone, 1993; Lawrence & Bennett, 1992) and additionally found negative imaginary audience as a critical form of public self-consciousness to be an important concomitant of social anxiety in adolescence (Ryan & Kuzckowski, 1994). In accordance with such findings, we anticipated positive associations between social anxiety and measures of adolescent's self-consciousness and negative self-perceptions. By confirming these relations, we could find a starting support for concurrent validity of the newly developed scale. We were also interested in the relation between social anxiety and possible discrepancy between the two estimations of adolescent's social incompetence (the adolescent's self-perception and peer's real estimation of adolescent's social incompetence). Namely, some studies have determined that partners in social interactions or observers rated social skills of socially anxious individuals lower than those of socially non-anxious ones (Halford & Foddy, 1982; Jones & Briggs, 1984). However, studies also showed that socially anxious individuals exaggerated in their anticipation of partner's negative evaluation. The partners evaluated socially anxious individuals less negatively than they themselves had expected (Clark & Arkowitz, 1975; Jones & Briggs, 1984). According to the literature reporting discrepancies between socially anxious individuals' self-evaluations and evaluation of them by others, we hypothesised that socially anxious adolescents also perceive themselves more negatively than their important peers perceive them.

Developmental Pattern of Social Anxiety in Adolescence

The present study tried to answer the question whether early adolescents are more subject to socially anxious feelings and avoiding behavior in different social situations than late adolescents. The hypothesis about decrease of social anxiety from early to late adolescence was based on the changes in social cognition that occur in early adolescence and on increased concerns with the public self-image in this period. Adolescent's reflection on his/her own thought processes and actions, as well as those of others, and the superiority of hypothetical thinking over concrete actions gives rise to some new qualities in interpersonal and self-understanding of adolescents. Selman (1980), for example, speaks of adolescent's ability to take the perspective of another person and to monitor his/her own thoughts and actions from the perspective of that other person. The early adolescent is, according to Selman, also able to step out from the interpersonal interaction and to monitor — as a neutral third person — the relation between self and another person. As a third-person observer, adolescent can reflect on him/herself simultaneously as actor and object. The adolescent is aware that he/she can be the object of the other person's thought and vice versa. Perspective-taking abilities thus do not exclude adolescent's sense of egocentrism and common feelings of self-consciousness. Adolescent's egocentrism was described by Elkind (1970), who proposed imaginary audience as one of the main constructs of egocentrically thinking adolescent. A creation of audience into whom the adolescent projects his/her own admiring and critical self-evaluations and preoccupations was proposed as a characteristic of early adolescence (Elkind & Bowen, 1979; Enright, Lapsley, & Shukla, 1979). Although the age-trend of adolescent's creation of critical audience has not been fully confirmed (see Goossens, 1984; Goossens, Seiffge-Krenke, & Marcoen, 1992), we hypothesised that at least social anxiety in its cognitive form, i.e., as an intense preoccupation with social self and anticipation, worry or fear of negative evaluation, would decrease in late adolescence. Late adolescents were expected to exhibit less cognitive features of social anxiety than early adolescents, due to their fewer self-preoccupations and concerns with shame and embarrassment. Late adolescents do not only have an ability to take a reflective perspective on a self-aware self (Selman's level 3 of social perspective taking), but also possess the ability to take perspective on a general social system (Selman's level 4 of social perspective taking). Therefore, they are supposed to have more sociocentric interests and not be occupied exclusively with self and immediate social group (Enright, Lapsley, & Shukla, 1979; Muuss, 1988). Accordingly, adolescent females were expected to report higher social anxiety than adolescent males. The confirmation of this hypothesis would be in accordance with previous studies on sex-differences in social anxiety in adolescence (La Greca & Stone, 1993; La Greca & Lopez, 1998; Mallet & Rodriguez-Tomé, 1999), and the finding that girls tend to be more concerned about their public appearance than boys (Kimmel & Weiner, 1995; Muuss, 1988).

To summarise, the central aim of the study was to present a new measure of social anxiety in adolescence and to analyse some of its psychometric properties. We tried to find support for its concurrent validity, predicting positive correlations between adolescents' social anxiety and self-perceptions of competence and self-consciousness. Finally, a decrease in social anxiety from early to late adolescence was expected, as well as sex-differences in social anxiety.

Method

Participants

The sample consisted of 325 early, middle and late adolescents. There were 118 sixth graders (55 males, 63 females; $M = 12.3$ years, $SD = 0.4$), 99 tenth graders (52 males, 47 females; $M = 16.1$ years, $SD = 0.4$) and 108 second-year university students (54 males, 54 females; $M = 20.5$ years, $SD = 0.7$). The adolescents were students recruited from different elementary and high schools and two faculties in Ljubljana. They came from families with dif-
ferent educational backgrounds. The students from the first two groups were selected so as to ensure their comparability with the group of university students: the elementary school students (sixth graders) with above-average GPA and high-school students (tenth graders) supposed to enter university in the future were selected for the sample.

Measures

Social anxiety

36 test items were developed on the basis of previous interviews with adolescents (see introduction). The most frequent answers were transformed into test items and some items from the La Greca's SASC-R were also adapted to use with adolescents (e.g., worries about peers' talking about the adolescent, fear of rumours, fear of peers' disliking). The items had to meet the following criteria in order to be included in the scale: (a) the item had to tap a social situation where the possibility of experiencing social anxiety is high (contacts with peers, contact with a peer of opposite sex, situations of exposure in school, performance in front of an audience, parties), (b) the item had to include contingent (individual's responses follow from the responses of others, e.g., a conversation with a peer) or non-contingent (the individual's behavior is entirely scripted, e.g., performing in front of an audience) social interactions (according to Leary, 1983a, b; 1991), and (c) the item had to include either self-reported anxiety (fear, distress) or its opposite (relaxation), or cognitive aspect of social anxiety (worry and anticipation of negative evaluation), or behavioral aspects of anxiety (reticence, inhibition, readiness to social exposure), that is one of the three components that constitute other questionnaires of social anxiety (Cheek & Buss, 1981; Feningstein, Scheier, & Buss, 1975; Jones & Briggs, 1986; La Greca & Stone, 1993; Watson & Friend, 1969).

26 test items were positively scored items describing distress, worries and inhibition in social situations (e.g., "I fear that peers wouldn't like me"; "I worry about managing to complete a new task in front of peers"; "I prefer listening to talking in a group of unfamiliar peers"). 10 test items were negatively scored, describing relaxation and willingness to expose oneself in social situations (e.g., "I feel relaxed in expressing my attitude in a school discussion"). Adolescents responded to each item using a 5-point scale (1 = not at all true about me; 5 = completely true about me).

Imaginary audience

Imaginary Audience Scale (IAS; Elkind & Bowen, 1979) was used to measure reluctance to reveal characteristics of the self to others. It consists of two subscales: the Transient Self (TS) scale and the Abiding Self (AS) scale. The Abiding Self checks reactions to six situations that are intended to reveal any of adolescent's long-lived characteristics (e.g., describing one's hobbies in front of a class). The Transient Self refers to six potentially embarrassing situations (e.g., to be photographed with cheeks red and swollen). Subjects choose one of three possible reactions to participa-

Self-consciousness

Self-focused attention was measured by Self-Consciousness Scale (SCS; Feningstein, Scheier, & Buss, 1975) which consists of 23 five-point scale-items comprising three subscales. For the purpose of this study only Public Self-Consciousness (PSC) and Social Anxiety (SA) subscales were used and not Private Self-Consciousness. PSC consists of seven items (e.g., "I'm usually aware of my appearance"). It measures a general awareness of the self as a social object that attracts attention of others. A high score indicates concern with own physical appearance, public self-presentation, and others' appraisal. Unlike Elkind's IAS, which refers to inner feelings and reactions in potentially embarrassing concrete situation, PSC refers more to awareness and occupations with social self in general. SA subscale consists of six items (e.g., "I feel anxious when I speak in front of a group"). It taps shyness, speech anxiety, embarrassment, inhibition in contact with strangers and distress in large groups. It was used to find additional support for concurrent validity of the new measure of adolescent's social anxiety.

Previous studies have demonstrated the reliability and validity of the SCS (Feningstein et al., 1975; Hamer & Bruch, 1994; Ryan & Kuzckowski, 1994). In our study internal consistency for the public self-consciousness and social anxiety subscale proved to be satisfactory (α = .79 and α = .75, respectively).

Perceived incompetence

(a) Global perception of self-(in)competence was measured by Perceived Incompetence Scale (PIS; Bezino-vc, 1999). PIS consists of 10 items rated on a 5-point scale. It measures self-perception of personal mastery and ex-
pecutions of favorable outcomes of one's own activity, which also constitute Bandura's concept of self-efficacy (Bandura, 1977). A high score indicates doubt in self-competence and feelings of insecurity and inadequacy. Examples of items: “At the beginning of an activity I already have doubts whether I can complete it successfully”; “Because I have a fear of failure, I give up on my work before I finish it”.

Bezinovic (1990) used different samples of different age groups and reported high internal consistency of the scale (alphas between .83 and .90) and sufficient test-retest reliability (r = .70). Our study found similarly high internal consistency of the scale (alpha = .84).

(b) Perceived Social Incompetence Scale (PSIS; Puklek, 1997) contains 13 bipolar items arranged as a 7-point semantic differential. They were constructed to measure perception of personal competence in social interaction (being open, relaxed, communicative and active in a group, being liked by others and interesting for them). The scale includes some dimensions of social skills such as social expression and social control (Riggio, 1986). A high score indicates a negative perception of social self-presentation. Two examples of items are: “I am more active than passive in discussions” vs. “I am more passive than active in discussions” and “I have the ability to influence others” vs. “I don’t have the ability to influence others”.

The scale was used to measure adolescent's self-perception of social incompetence and the perception of him/herself by a classmate (the one each adolescent named as important for him/her). Thus, all the participants in the classroom assessed their own social competence and some of them (see below) were also raters of others' social competence. The two measures showed high internal consistency (alphas were .88 and .90 for self-ratings and others' raters, whereby 14% and 30% were other-sex choices in early and middle adolescent group, respectively.

Results

Structural Analysis of the Test Items for Social Anxiety Scale for Adolescents (SASA)

To examine the factorial structure of the items a principal-components analysis using oblimin rotation was performed on 36 test items for the entire sample (N=325). Scree test and content analysis of factors showed that a two-factor solution was the most appropriate to retain. The oblique solution with δ=0 ended up in a correlation of .29 between the two factors, justifying the choice of non-orthogonal solution. The two-factor solution accounted for 33% of the variance. Twenty-six items had loadings above .43 on Factor 1 or 2. Two additional items with loadings below .43 were retained to increase internal consistency of the second subscale. Twenty-eight items were used in further analysis (see Table 1).

Factor 1 accounted for 24.6% of the variance while containing 15 items. The correlations of the items with the total score of the subscale ranged from .36 to .65. Items cover the domain of adolescent's fears and worries about possible negative evaluations by peers and audience when performing publicly. Anxiety is triggered by anticipated negative social evaluation, possible disclosure of adolescent's inadequacy and possible social rejection. The factor was labeled Apprehension and Fear of Negative Evaluation (AFNE) and represents a cognitive-emotional aspect of social anxiety. The internal consistency of the subscale for the entire sample was α = .89.

Factor 2 accounted for 8.4% of the variance and contains 13 items. The item-total correlations ranged from .38 to .51. Items describe social tension/relaxation, speech or behaviour inhibition in social contacts and readiness to social exposure. The social environment is represented by known and unknown peers, opposite sex peers, dissimilar people and class discussion. The factor was labeled Tension and Inhibition in Social Contact (TISC). It represents a behavioral-emotional aspect of social anxiety and refers to contingent social interactions. Cronbach’s alpha for the subscale (obtained from the entire sample) was α = .79.

As no weighting was applied, the respective sums of item raw scores yield the total scores of the two subscales. The correlation between the two subscales was .38. This moderate correlation suggests that the two subscales constitute a more general construct of social anxiety, but are also sufficiently independent so that separate scores can be meaningfully used. The new measure of social anxiety thus constructed was named Social Anxiety Scale for Adolescents (SASA).

In addition, confirmatory factor analysis (CFA) was performed to evaluate the adequacy of the fit between the

1 The critical value for loading rejection testing at α = .05 for our sample size based on the recommendations by Stevens (1996, pp. 370-372).
Table I: Factor loadings of the Social Anxiety Scale for Adolescents

<table>
<thead>
<tr>
<th>Description of item</th>
<th>Factor I</th>
<th>Factor II</th>
</tr>
</thead>
<tbody>
<tr>
<td>I worry about peers talking about me. (16)</td>
<td>.72</td>
<td>.17</td>
</tr>
<tr>
<td>I fear that peers wouldn’t like me. (8)</td>
<td>.72</td>
<td>.16</td>
</tr>
<tr>
<td>I fear that peers would think I am inadequate. (34)</td>
<td>.70</td>
<td>.25</td>
</tr>
<tr>
<td>I worry about not being accepted by peers. (15)</td>
<td>.69</td>
<td>.30</td>
</tr>
<tr>
<td>I fear of rumours about me. (5)</td>
<td>.68</td>
<td>.12</td>
</tr>
<tr>
<td>I fear of failures that could cause peers’ teasing. (33)</td>
<td>.68</td>
<td>.26</td>
</tr>
<tr>
<td>I fear of critical remarks that could follow my performance in front of an audience. (32)</td>
<td>.65</td>
<td>.28</td>
</tr>
<tr>
<td>During my performance I fear of boring the audience. (19)</td>
<td>.62</td>
<td>.33</td>
</tr>
<tr>
<td>I fear of being intrusive to familiar peers. (20)</td>
<td>.62</td>
<td>.24</td>
</tr>
<tr>
<td>I fear of performance failures. (28)</td>
<td>.59</td>
<td>.34</td>
</tr>
<tr>
<td>I worry about completing a new task in front of peers. (10)</td>
<td>.57</td>
<td>.30</td>
</tr>
<tr>
<td>I fear of an unfamiliar peer’s assessment of me by first impression. (6)</td>
<td>.57</td>
<td>.10</td>
</tr>
<tr>
<td>After a performance, I worry about its successfulness. (11)</td>
<td>.51</td>
<td>.28</td>
</tr>
<tr>
<td>I try to present myself to unfamiliar peers as better than I really am. (22)</td>
<td>.48</td>
<td>.01</td>
</tr>
<tr>
<td>I have the impression that peers assess my appearance and behavior. (18)</td>
<td>.46</td>
<td>.01</td>
</tr>
<tr>
<td>I prefer listening to talking in a group of unfamiliar peers. (30)</td>
<td>.27</td>
<td>.62</td>
</tr>
<tr>
<td>I feel vague uneasiness at parties. (31)</td>
<td>.38</td>
<td>.62</td>
</tr>
<tr>
<td>I experience difficulty in making contacts with unfamiliar peers. (23)</td>
<td>.36</td>
<td>.61</td>
</tr>
<tr>
<td>I feel relaxed in expressing my attitude in a school discussion. (3)</td>
<td>-.15</td>
<td>-.59*</td>
</tr>
<tr>
<td>I feel relaxed in contacts with the opposite sex. (21)</td>
<td>-.23</td>
<td>-.57*</td>
</tr>
<tr>
<td>I speak more in class discussions than my classmates. (12)</td>
<td>.08</td>
<td>-.56*</td>
</tr>
<tr>
<td>I feel relaxed in approaching an unfamiliar peer at a party. (4)</td>
<td>-.23</td>
<td>-.54*</td>
</tr>
<tr>
<td>I can find a common theme to talk about with every classmate. (26)</td>
<td>-.15</td>
<td>-.53*</td>
</tr>
<tr>
<td>I can express my personal attitude to unfamiliar peers. (25)</td>
<td>-.21</td>
<td>-.53*</td>
</tr>
<tr>
<td>I am less talkative in a conversation with an unfamiliar peer than he/she is. (9)</td>
<td>.38</td>
<td>.49</td>
</tr>
<tr>
<td>I like being the centre of attention in a group of people. (17)</td>
<td>.20</td>
<td>-.47*</td>
</tr>
<tr>
<td>I feel relaxed in the group of familiar peers. (27)</td>
<td>-.22</td>
<td>-.39*</td>
</tr>
<tr>
<td>I feel at ease even with people quite different from myself. (35)</td>
<td>-.11</td>
<td>-.35*</td>
</tr>
</tbody>
</table>

Note: Item numbers are in parentheses.
* scoring has to be reversed when summing the subscale score.

Correlations of the Social Anxiety Subscales (AFNE, TISC) with Self-Consciousness (SCS & IAS) and Perceived Incompetence (PIS & PSIS)

Pearson’s product-moment correlations were computed to assess the degree of association between the two subscales of SASA and measures of self-consciousness (transient and abiding self, public self-consciousness) and variables of perceived incompetence (global and social). These data are presented in Table II, whereby subjects have been pooled.
Age and Sex Differences

A Sex x Age analysis of variance showed significant main effects for age and sex only for the AFNE subscale, $F(2, 302) = 9.03, p = .000$, $F(1, 302) = 9.30, p = .002$, and significant interaction effect for the TISC, $F(2, 300) = 3.10, p = .046$. Scheffé's post-hoc test of AFNE showed significant difference between age groups 12 and 20 ($p = .000$) as well as 16 and 20 ($p = .008$), but not between age groups 12 and 16. Thus, 12- and 16-year-olds expressed more worries and fears of negative evaluation from peers and audience when performing publicly than 20-year olds. Female adolescents reported more worries and fears of negative social evaluation than male adolescents. The sex differences within each adolescent group were only significant in the group of middle adolescents ($t(88) = 2.77, p = .007$). Social tension and inhibition did not differ either among different adolescent age groups or between males and females. A significant interaction between age and sex indicates that the trend of results on the TISC subscale exhibited different shape for females and males across the age groups. Twelve-year old adolescent females scored higher than 16-year old adolescent females who, in turn, scored higher than 20-year old adolescent females; 16-year old and 20-year old adolescent males attained similar scores and scored lower than the 12-year olds. Descriptives for the two subscales in question are reported in Table III.

Discussion

The study provided some initial support for SASA as a measure of social anxiety in adolescence. The two subscales of the SASA exhibited sufficient internal consistency and validity. The first subscale (AFNE) mainly refers to adolescent’s anticipation of negative social evaluation, while the second one (TISC) refers to adolescent’s distress and reticence in immediate social interaction.

The newly developed measure is close to Watson’s and Friend’s FNE and SAD, and the adolescent version of the SASC-R (called SAS-A; La Greca & Lopez, 1998). In comparison with La Greca and Lopez’s measure which contains peers and undefined others as interaction partners, SASA extends the adolescent’s worries about negative social evaluation and social distress and reticence to different interaction partners (peers, classmates, teachers, opposite sex peer), while it additionally includes worries and distress when performing publicly. Performing publicly seemed to be a significant difference for female adolescents in comparison to male adolescents.
important enough a setting to be included in a social anxiety scale for adolescents since it is one of the most common threatening social situations (Buss, 1980; Leary, 1983a; Leitenberg, 1990; Zimbardo, 1977). The adolescents imagine different social situations where they could be exposed, observed and evaluated. Negative anticipations and worries can thus be applied to any situation (contingent or non-contingent) where the adolescent has a feeling of being the centre of others' attention. Although SASA did not differentiate adolescent's social distress and inhibition according to acquaintance with peers (subscale TISC includes known as well as unknown interaction partners), the potential advantage of the new measure is a rather modest correlation between the two subscales (.38). La Greca and Lopez (1998), for example, found a quite higher correlation (> .50) among the three subscales of their scale.

The results confirmed the hypothesis of significant positive relations between social anxiety and variables of self-consciousness and perceived incompetence. These relations, established in previously mentioned studies, and significant moderate correlations with the widely used measure of social anxiety (subscale Social Anxiety of SCS, Fenigstein et al., 1975) provide support for the concurrent validity of the SASA. It is also important to discuss the meaning of established associations between social anxiety and adolescent's negative self-perceptions and preoccupation with social self and negative imaginary audience. Previous studies on social anxiety in adolescence (Inderbitzen, Walters, & Bukowski, 1997; La Greca & Lopez, 1998; Vernberg et al., 1992) showed that feelings of social anxiety might be related to impaired interactions with peers (e.g., less popularity in peer group, less intimacy and support in close friendship, feelings of being socially less accepted), while present study showed that adolescent's social anxiety is related to less favorable self-perceptions, intense processing of self as a social object and imagining the social world as a critical observer of the adolescent. Therefore, it is important to identify adolescents with extreme social anxiety and encourage their self-assertive behavior in social situations. In addition, dysfunctional self-processing should be identified and modified. Different behavioural experiments and examples of guided self-discovery of one's disruptive self-processing, negative thoughts and assumptions about negative public reactions can be found in Wells (1997).

An important finding was that social tension and inhibition were more related to lower estimation of social competence (from adolescent's and other's point of view) than apprehension and fear of negative evaluation. Socially distressed and inhibited adolescents viewed themselves as significantly less open, relaxed, communicative etc. in social interaction, and significant peers (classmates of each individual's choice) confirmed their lower social skills. Adolescents who were prone to anticipate negative social evaluation also perceived themselves as less socially competent, although the chosen peers did not confirm their perception of being socially unskilled. The results suggest that tension and inhibition of behavior and speech in social interactions are related to less developed social skills in adolescents. Unfortunately, the correlation does not clarify whether social tension and inhibition are a cause or a consequence of lower social competence. The reciprocal relation between social inhibition and the development of social skills seems plausible. Some authors suggested that social inhibition in children has temperamental basis (Kagan, Snidman, & Arcus, 1993; Rothbart & Mauro, 1990). Social inhibition and avoidance then leads to less social interaction, which, in turn, means less social experience and less possibility to learn the appropriate social strategies. On the other hand, socially unskilled children or adolescents have less chance to be accepted and invited to interact with peers, so they might develop social evaluative concerns and start to avoid social contacts.

Adolescents' fear of negative evaluation and peers' assessment of their social skills were not found to be related. This is consistent with the studies of Clark & Arkowitz 

### Table III: Means for the two SASA Subscales by Age and Sex

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Age</th>
<th>12</th>
<th>16</th>
<th>20</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFNE</td>
<td>Females</td>
<td>43.83 (9.62)</td>
<td>44.91 (10.35)</td>
<td>38.23 (12.22)</td>
<td>42.22 (11.10)</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>41.55 (10.61)</td>
<td>38.65 (11.02)</td>
<td>35.57 (10.17)</td>
<td>38.57 (10.81)</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>42.69 (10.13)</td>
<td>41.78 (11.10)</td>
<td>36.90 (11.26)</td>
<td>40.45 (10.83)</td>
</tr>
<tr>
<td>TISC</td>
<td>Females</td>
<td>36.46 (7.54)</td>
<td>34.22 (8.62)</td>
<td>32.42 (8.15)</td>
<td>34.27 (8.18)</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>33.12 (6.34)</td>
<td>34.47 (8.30)</td>
<td>34.11 (6.84)</td>
<td>33.90 (7.16)</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>34.79 (7.17)</td>
<td>34.35 (8.39)</td>
<td>33.27 (7.53)</td>
<td>34.13 (7.70)</td>
</tr>
</tbody>
</table>

Note: N = 325. Standard deviations are shown in parentheses.

SASA = Social Anxiety Scale for Adolescents; AFNE = Apprehension and Fear of Negative Evaluation; TISC = Tension and Inhibition in Social Contact.
through adolescence was confirmed. Concerns regarding the form of critical self-occupation with one's social image to the scrutiny of others. The results are consistent with Cheek & Carpentieri's (1986) review of the research on the age trend of shyness. They found early adolescence (between 12 and 14) to be a period of the highest anxious self-consciousness according to Buss, 1980, 1986), which represents an acute awareness of being excessively exposed to the scrutiny of others. The results are consistent with Cheek & Carpentieri’s (1986) review of the research on the age trend of shyness. They found early adolescence (between 12 and 14) to be a period of the highest anxious self-preoccupation.

One of the possible interpretations regarding the peak of cognitive form of social anxiety in early adolescence is an intensification of self-consciousness at the onset of puberty (Elkind, 1979). Early adolescents are occupied with social evaluation, especially peer opinion, and they create imaginary audience. The projection of critical self-opinion into other's speculations about the adolescent creates an imagination of negative social evaluation and thus social anxiety. Late adolescents free themselves from egocentric self-preoccupation by developing a sociocentric view that diverts attention from self to others and by establishing a firm and stable identity that enables willingness to self-disclosure. The study also confirmed the findings about adolescent females reporting higher social anxiety than males (see the introductory section). It must be noted, though, that only fear of negative social evaluation was more present in females than in males, but not social tension and inhibition. The results might reflect the sex-role expectancies. Feminine sex-role is more oriented towards interpersonal relationship and, what is even more important in this case, towards mirroring one’s own public appearance. Adolescent girls have been found to be more self-occupied than boys, they perceive themselves as less physically attractive and express more worries about their public appearance than boys (Kimmel & Weiner, 1995; Mussen, 1988). Nevertheless, the results might also imply that adolescent males experience difficulties in interpersonal contingent relations as well. Namely, while social tension and inhibition decreased with age among adolescent females, late adolescent males still reported similar social tension and inhibition as their middle adolescent counterparts.

There are some apparent limitations to the study that must be considered in the interpretation of the results. The cross-sectional nature of the study only provides data on age-differences but not on age-changes of different forms of social anxiety. The future research should hence focus on changes in social anxiety within subjects in time. The group of pre-adolescents should also be included in a future study. Such a longitudinal study would help to find out (a) if the period of early adolescence is really a time of heightened social anxiety in its cognitive form, (b) if the cognitive aspect of social anxiety diminishes through adolescence, and (c) if social tension and inhibition represent developmentally stable kinds of social anxiety. Furthermore, all variables except one were obtained by adolescents' self-reports. As this may have inflated the correlations, further research should include the perspectives of other informants (e.g., parents and friends) to reduce possible bias.

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