

Perceived Parental Rearing Styles of Agoraphobic and Socially Phobic In-patients

W. A. ARRINDELL, M. G. T. KWEE, G. J. METHORST, J. VAN DER ENDE, E. POL and B. J. M. MORITZ

The perceived parental rearing practices and attitudes of agoraphobics, social phobics and non-patient normal controls were investigated, employing the EMBU, an inventory for assessing memories of upbringing. Findings obtained previously with out-patients were replicated with in-patients as subjects. Compared with the controls, agoraphobics rated both their parents as having been less emotionally warm but only their mothers as having been rejective. Socially phobic in-patients rated both their parents as having been rejective, as having lacked emotional warmth, and as having been over-protective. Comparisons between agoraphobics and social phobics showed differences in certain aspects of parental rearing, with the socially phobic in-patients assigning ratings more negatively than the agoraphobic group.

Atypical parental rearing characteristics have frequently been suggested as antecedents to phobic disorders. Negative rearing practices such as parental, particularly maternal, domination and over-protection, over-criticism by parents, and a lack of sufficient parental affection have been implied in agoraphobia (e.g. Webster, 1953; Tucker, 1956; Snaith, 1968; Shafar, 1976; Bowlby, 1980, pp. 292–312). However, while there appears to be much agreement among clinicians, who base their investigations on case reports or other descriptions of uncontrolled investigations, as to the role of such factors in the aetiology of agoraphobia (cf. Thyer *et al*, 1985; and Liotti, 1986), it is far more difficult to draw any conclusions from summaries of the available empirical evidence on family factors and agoraphobia (see Mathews *et al*, 1981, pp. 34–39; Foa *et al*, 1984; Tearnan *et al*, 1984; Thyer *et al*, 1985). Mathews *et al* (1981, p. 37), for example, are doubtful whether early family environment, including such factors as mentioned above, plays a part in predisposing individuals to developing agoraphobia, since not all studies agree in finding any significant distinguishing features. In their view, one important reason for the contradictory results is the use of different measuring instruments, many of which they suspect are of dubious validity (Mathews *et al*, 1981, p. 37). Related to this point of validity is what Tearnan *et al* (1984) have called the vagueness of the measures employed in the aetiological literature. They assert that the lack of specificity and clarity of definitions of parental rearing concepts that have been used may account for the inconsistencies in previous reports. In addition, they point out that measures need to be defined operationally to ensure a more reliable and valid assessment of parental rearing constructs. Thus, there is as yet no empirical evidence available

(cf. Mathews *et al*, 1981, p. 35) for the contention (e.g. Andrews, 1966; Goldstein & Chambless, 1978; Wolfe, 1984) that, because of having been over-protected during childhood and adolescence, an individual learns a pattern of dependence on others that leaves him/her predisposed to develop agoraphobia as a method of coping with difficult situations later in life.

To judge from a recent review on social phobia by Liebowitz *et al* (1985), even less is known from empirical research about the possible aetiological role of negative parental rearing practices in the development of this disorder. In describing the theoretical link between shyness and self-presentation (i.e. the process by which individuals attempt to establish an identity by controlling the images of self available to others) and their aetiological aspects, Arkin *et al* (1986) suggested that a child punished (labelled inadequate) when his/her behaviour does not live up to high parental standards, and unrewarded when it does, may easily acquire an abiding 'fear of failure'. Similarly, consistent rejection, or anticipated rejection, coupled with reinforcement of dependence in the child may produce anxiety and focus the child's attention on avoiding disapproval rather than seeking approval (cf. Arkin *et al*, 1986). Canavan-Gumpert (1977) has shown that this attention to potential losses as opposed to potential gains engenders an increasingly conservative and hesitant response style. Arkin *et al* (1986) also noted that a reinforcement history which is insufficiently contingent could be an aetiological factor in the tendency to engage in self-critical ideation, and thus the aetiology of the protective self-presentational style. This protective style may manifest itself through withdrawal from social interaction, the adoption of neutral or conforming attitudes, self-handicaps, and modesty

in attributions as a means of self-regulating feelings of social anxiety (cf. Arkin *et al*, 1986).

From the above, it can be concluded that there is some overlap in the 'typical' styles of upbringing of parents of individuals who become agoraphobic or socially phobic. Put somewhat differently, it is not clear which dimensions of parental rearing are specific for agoraphobia and which for social phobia (cf. also Liebowitz *et al*, 1985).

Relevant empirical data

To date, two empirical studies (Parker, 1979; Arrindell *et al*, 1983b) have appeared in which agoraphobics' and social phobics' perceptions of the rearing styles of their parents have been studied. These studies are discussed here because they meet the requirements that

- (a) the patients have been compared with controls
- (b) the measuring instruments used are reliable and valid measures of the major dimensions of parental rearing style (see Rollins & Thomas, 1979), and
- (c) these major concepts have been clearly specified and defined.

Parker (1979) compared agoraphobics and social phobics with controls (selected consecutively from two general practices) on the Parental Bonding Instrument (PBI; Parker *et al*, 1979). The PBI is a self-administered 25-item questionnaire measuring the two principal dimensions of parental types of behaviour and attitudes, namely care (i.e. 'caring versus indifference/rejection') and over-protection (i.e. 'control/over-protection versus allowance of autonomy and independence'). Descriptions of the measuring concepts and data supporting their reliability and validity are given in Parker *et al* (1979) and Parker (1983a,b). Parker (1979) found that those assigned to a socially phobic group rated both parents as less caring and as more protective, while those assigned to an agoraphobic group differed from controls only in reporting less maternal care.

Arrindell *et al* (1983b) studied the perceived parental rearing styles of social phobics, agoraphobics and height (simple) phobics by comparing their ratings of their parents with those of non-patient normal controls, employing the EMBU (*Egna Minnen Beträffande Uppfostran*; 'My memories of upbringing'; Perris *et al*, 1980). The EMBU is an 81-item self-administered inventory which measures the factorially-derived dimensions of rejection, emotional warmth, over-protection and favouring subject (not used here). The EMBU rejection and emotional warmth dimensions correspond to the PBI

care dimension, while the EMBU over-protection dimension is conceptually similar to the similarly named dimension of the PBI (see the Method section for a description of the different aspects that are incorporated in the PBI and the EMBU). Data supporting the reliability and the validity of the EMBU are given in Arrindell *et al* (1983a), Arrindell & van der Ende (1984) and Arrindell *et al* (1986a).

Arrindell *et al* (1983b) found that compared with controls from the general population, both social phobics and height phobics rated both parents as lacking in emotional warmth and as having been rejective and over-protective. Agoraphobics differed from controls only in that they rated both parents as having lacked emotional warmth and only their mothers as having been rejective. Thus, agoraphobics did not differ from normal controls in terms of parental protectiveness or paternal rejection. It was further pointed out by Arrindell *et al* (1983b) that, to judge from the magnitudes of the differences found (effect sizes), certain parental rearing characteristics might be more typical for one type of phobic disorder than another. A secondary analysis of the findings of Arrindell *et al* (1983b) showed that agoraphobics and social phobics differed from each other in terms of paternal rejection only, the socially phobic group having the highest mean rating in this respect (small effect size, $d = 0.22$).

The study

Whereas Arrindell *et al* (1983b) made use of phobic subjects who were treated on an out-patient basis, the present study was aimed at partly repeating that study by using agoraphobic and socially phobic in-patients as subjects. In addition, it extended that study by performing comparisons between agoraphobic and social phobics on the EMBU subscales and by examining between-group differences in terms of ratings of consistency and strictness of parental rearing. These were assessed with two additional questions from the EMBU.

Since it could not be assumed that data produced in one type of sample (out-patients) would by definition generalise to another type of sample (in-patients), it was thought wiser to take both clinical-theoretical viewpoints and empirical data (Parker, 1979; Arrindell *et al*, 1983b) as bases from which to formulate hypotheses for the present clinical groups. In addition, it could be argued (Parker, 1979) that the association between negative rearing practices and phobic condition could turn out to be stronger with increasing psychopathology in recipients, meaning in this context that findings obtained previously with out-patients might result as less marked than those yielded with

patients carrying the same diagnostic label but treated on an in-patient basis.

In reviewing the descriptive evidence on pathogenic patterns of family interaction in agoraphobia, Bowlby (1980) has pointed to the dominant and controlling or over-protective role that parents, usually mothers, played in the genesis of the target symptoms. In addition, Bowlby (1980) attests to the possible causal role of threats of rejection and actual rejection in the agoraphobic patient's condition. Over-criticism by parents and lack of parental affection are other aspects that have been raised in the literature on agoraphobia (e.g. Tucker, 1956). Bowlby (1980) also described the style of upbringing in the families of agoraphobic patients as inconsistent. He writes: "not infrequently, a parent who gives the impression of being consistently over-protective is found on occasion to be exactly the reverse; while a parent who appears to be consistently rejecting can on occasion be affectionate; the behaviour of the parents of many agoraphobics is probably very often intensely ambivalent" (p. 308). Bowlby (1980) does not make any direct mention of any clinical evidence of a pattern of strict upbringing in the parental homes of agoraphobic patients, although repeated references to the observation that a substantial proportion of agoraphobic patients have been subjected to harsh treatment – a mother, for instance, is described as a 'tartar' who had always used the most dreadful and violent threats, including outright rejection, to get her own way – make it likely that the pattern does occur. Thus, it was hypothesised that agoraphobics would differ from normal controls in having lower ratings for parental affection, and higher ratings for parental protection, rejection, inconsistency and strictness.

On the basis of the theoretical viewpoints of Arkin *et al* (1986) with respect to the aetiological part played by negative rearing styles in social phobia outlined earlier, it was anticipated that social phobics would also rate significantly higher than their normal control equivalents on strictness and inconsistency of parental rearing behaviour. Furthermore, Arkin *et al* (1986) have theorised that consistent rejection, or anticipated rejection, paired with reinforcement of dependence in the recipient is associated with social phobia. Thus, both parental rejection and parental protection were postulated to differentiate social phobics from their normal control counterparts, the former group having the higher mean ratings.

In addition, the empirical studies by Parker (1979) and Arrindell *et al* (1983b) suggested that social phobics could be differentiated from normal controls

by the former's lower parental affection ratings, and that the differential pattern in findings obtained when comparing phobic types with normal controls would argue for differentiation between agoraphobic and socially phobic in-patients by different measures of style of upbringing.

Method

Subjects and procedures

The in-patients were 43 agoraphobics and 16 social phobics consecutively admitted for treatment in various clinical trials at a non-university hospital department of behavioural psychotherapy during 1984–86. All patients met the DSM-III criteria (American Psychiatric Association, 1980) for agoraphobia or social phobia as a major disorder, based on consensus between a clinical psychologist and a psychiatrist. The controls were 100 randomly selected non-patients from a general population sample comprising subjects who had volunteered to participate in a study concerned with the development of measures for use in mental health research. The original main sample (cf. Arrindell *et al*, 1984) was a volunteer subsample taken from a larger randomly-drawn community-based Dutch sample. Since this subsample comprised volunteers (age range: 20–69 years), it, of course, does not constitute a truly random sample; at most one might refer to the sample as fortuitous, i.e. collected in such a way as to maximise diversity, but relying on chance rather than design.

Eysenck (1975) discusses the concept of a fortuitous but reasonable sample as opposed to a random or quota sample, and has empirically demonstrated in a further study that a reasonable sample gives results that are very similar (in some instances even identical) to those obtained when using a proper quota sample (Eysenck, 1979).

A multitude of background demographic and other data were obtained for each subject. These included, among other variables, sex, age, education, number of siblings, birth order, and age at departure from the parental home. Since the groups were fairly well comparable in terms of these variables – except for age (see below) – and because of the lack of any meaningful associations between these variables and the EMBU ratings, data with respect to sex and age only were deemed relevant in presenting a brief description of the samples.

The distribution according to sex was as follows: 53.5% males and 46.5% females in the agoraphobic sample, 56.3% and 43.8% respectively for the socially phobic males and females, and 54% and 46% respectively for the normal males and females (overall $\chi^2 < 1$, d.f. = 2, $P > 0.50$, NS). The groups of agoraphobics and social phobics were comparable in terms of mean age: 32.9 years for both groups. However, they were significantly younger than the normal controls, whose mean age was 41 (overall $F = 9.38$, d.f. = 2, $P < 0.001$). The influence of age on the outcome of the data analysis will be examined closely below.

The EMBU

At the item-level, the EMBU comprises 14 aspects of parental rearing types of behaviour and attitudes: abusive,

depriving, punitive, shaming, rejecting, over-protective, over-involved, tolerant, affectionate, performance oriented, guilt engendering, stimulating, favouring subject and favouring siblings (Perris *et al*, 1980). These a priori aspects have been shown to reduce to four replicable and invariant dimensions: rejection, emotional warmth, over-protection, and favouring subject (e.g. Arrindell & van der Ende, 1984). Since there is some evidence indicating that the favouring subject factors are specific to Dutch samples – that is, they are not generalisable to a number of national groups other than the Dutch (Arrindell *et al*, 1986a; Arrindell *et al*, 1986b) – these were deleted from the present investigation.

A brief outline of the correspondence between the EMBU and the PBI is in order. The EMBU rejection and emotional warmth dimensions correspond to the PBI care dimension in that the latter involves one pole defined by affection, emotional warmth, empathy and closeness, and the other defined by emotional coldness, indifference and neglect. The EMBU over-protection dimension overlaps with the PBI over-protection dimension since the latter has one pole defined by control, over-protection, intrusion, excessive contact, infantilisation and prevention of independent behaviour, and the other defined by items that suggest allowance of independence and autonomy. A critical examination of the validity of content of the EMBU (Arrindell & van der Ende, 1984) revealed that the ingredients judged to be salient in measuring the major components of parental rearing (Rollins & Thomas, 1979) are fairly well represented in the questionnaire. In fact, Liotti (1986) has recently asserted that the EMBU is informationally (i.e. in terms of validity of content) superior to the PBI in this respect.

It is important to note that the background variables mentioned earlier (including age, for which the present patient samples differed from controls) have generally been found to be uncorrelated or only negligibly so with rearing aspects (e.g. Arrindell *et al*, 1983a, 1986a; cf. also Fishbein, 1984, pp. 73–77). This observation holds for the present in-patient samples as well (Arrindell *et al*, 1989). In addition, the EMBU scales have been reported to be negligibly associated with social desirability (Arrindell *et al*, 1983a). The questionnaire was completed by the patients as part of both a diagnostic and a research programme before the start of treatment.

Statistical analyses

One-tailed univariate *t*-tests were performed throughout. Where evidence for non-homogeneity was clearly marked ($P \leq 0.01$, two-tailed tests), *t*-values adjusted for unequal variances were calculated.

The influence of age on the outcome of the data analysis was examined, and analyses of covariance (ANCOVAs) were performed for each variable for those comparisons that involved agoraphobics or social phobics against normal controls, since the former two groups differed meaningfully in terms of age from the latter group (agoraphobics and social phobics were comparable in terms of mean age). In the ANCOVAs, the influence of age on the results was partialled out. The findings obtained from these analyses were compared with those obtained from the multiple *t*-tests conducted without elimination of any age effects. The working α was set at 0.05.

Where data are missing (because individuals had no brothers or sisters or because they gave ratings for only one parent) the values of *N* in the different analyses inevitably differ, but only slightly so, from those given in the Subjects section above (see the appropriate tables).

Results

Preliminary analyses

In both patients and normal controls, correlations between age and the EMBU variables were negligible (i.e. very close to zero) and of magnitudes comparable to those reported in Arrindell *et al* (1989). The results obtained with and without partialling out for the influence of age did not differ appreciably: identical conclusions were obtained across these analyses. Therefore, the simple *t*-tests are reported below.

Main analyses

Table I summarises the means and standard deviations for ratings for each group for each dimension, including the general ratings of strictness and consistency, for each parent.

Agoraphobics or social phobics v. normal controls

The one-tailed *t*-test comparing agoraphobics with normal controls on each of the EMBU scales showed the former group to differ significantly, and in the expected direction, from the control group, for the fathers' emotional warmth ($t = -3.33$, d.f. = 136, $P < 0.001$), the mothers' rejection ($t = 2.46$, d.f. = 61, $P < 0.01$) and emotional warmth ($t = -4.05$, d.f. = 137, $P < 0.001$) scales.

Social phobics rated both their fathers and their mothers as more rejective than normal controls rated theirs (*t*-values respectively 3.17, d.f. = 16, $P < 0.01$, and 4.93, d.f. = 110, $P < 0.001$). In addition, the social phobics rated both parents significantly lower on emotional warmth than the controls rated theirs (*t*-values respectively -4.19 , d.f. = 109, and -5.25 , d.f. = 110, P -values $<< 0.001$). Both groups could be distinguished from each other in terms of protection as well, the socially phobic group having rated both their parents as more protective than the control group rated theirs (*t*-values respectively 1.85, d.f. = 109, $P = 0.03$, and 2.03, d.f. = 110, $P = 0.02$).

The following picture emerged with respect to the consistency and strictness ratings: compared with normal controls, the agoraphobic in-patients reported both their parents as having brought them up in a less consistent fashion than the normal controls reported theirs as having raised them (*t*-values for the fathers and the mothers were respectively 2.42, d.f. = 132, $P = 0.01$, and 3.34, d.f. = 56, $P < 0.001$). In addition, the agoraphobics reported their fathers as having been less strict than the normal controls reported theirs as having been ($t = 2.08$, d.f. = 133, $P = 0.02$).

As a group, social phobics rated the rearing behaviour of both their fathers and their mothers as less consistent

TABLE I
Ratings for each parental rearing measure, for each subject sample*

	Rejection	Emotional warmth (Over-)protection	Inconsistency	Lack of strictness
Ratings for fathers				
Agoraphobics				
Mean	36.70	43.67	32.72	2.14
s.d.	9.87	11.29	9.14	0.68
Social phobics				
Mean	45.06	37.75	35.31	2.13
s.d.	13.49	12.77	9.87	0.62
Normal controls				
Mean	34.11	50.43	31.77	1.86
s.d.	7.16	10.93	6.56	0.60
Ratings for mothers				
Agoraphobics				
Mean	41.12	44.81	34.98	2.48
s.d.	13.85	12.50	8.95	0.89
Social phobics				
Mean	48.63	38.44	38.88	2.50
s.d.	11.14	11.27	7.63	0.89
Normal controls				
Mean	35.39	52.88	34.98	1.98
s.d.	9.75	10.01	7.04	0.55

*N (EMBU subscales): agoraphobics, 43; social phobics, 16; normal controls, 95–96. N (EMBU general ratings): agoraphobics, 42; social phobics, 16; normal controls, 92–94.

Note. Theoretical ranges for consistency and strictness ratings are 1 (very consistent or very strict style) to 4 (very inconsistent or totally non-strict style of upbringing).

than normal controls rated the rearing behaviour of their parents (t -values respectively 1.62, $d.f.$ = 106, P = 0.05 and 2.26, $d.f.$ = 17, P = 0.02).

Agoraphobics v. social phobics

Comparison of agoraphobics with social phobics, on the EMBU subscales, showed clear differences in terms of both

the fathers' and the mothers' rejection ratings: social phobics rated both parents as *more* rejective than agoraphobics rated theirs (t -values respectively -2.61, $d.f.$ = 57, P < 0.01, and -1.94, $d.f.$ = 57, P = 0.03). In addition, significantly lower mean ratings were yielded for social phobics when compared with agoraphobics in terms of paternal and maternal affection: ratings of the fathers, t = 1.73, $d.f.$ = 57, P = 0.04; ratings of the mothers, t = 1.79,

TABLE II
Degree of relevancy of significant differences encountered between agoraphobics, social phobics, and normal controls in recollections of types of parental rearing behaviour and attitudes (Cohen's measure $|d|$ of effect size)

	Agoraphobics (A) v. normal controls (N)	Social phobics (S) v. normal controls (N)	Agoraphobics (A) v. social phobics (S)
Father's style			
Rejection	-	1.01 (S > N)	0.71 (S > A)
Emotional warmth	0.61 (A < N)	1.07 (S < N)	-
Over-protection	-	0.42 (S > N)	-
Inconsistency	0.44 (A > N)	0.44 (S > N)	-
Lack of strictness	0.38 (A > N)	-	0.52 (A > S)
Mother's style			
Rejection	0.48 (A > N)	1.26 (S > N)	0.60 (S > A)
Emotional warmth	0.71 (A < N)	1.35 (S < N)	-
Over-protection	-	0.53 (S > N)	-
Inconsistency	0.68 (A > N)	0.70 (S > N)	-
Lack of strictness	-	-	-

Note. For purposes of interpretation, Cohen (1977, p. 40) considers 0.20 *small*, 0.50 *medium*, and 0.80 *large*.

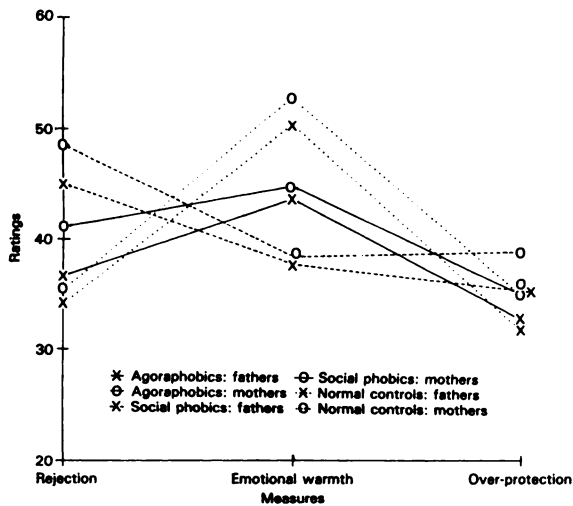


FIG. 1 EMBU subscale profile (based on mean ratings) of non-patient normal controls, and of agoraphobic and socially phobic in-patients.

d.f. = 57, $P=0.04$. No distinctions could be made between these groups in terms of parental protection: fathers' data, $P=0.17$; and mothers' data, $P=0.06$.

For the general ratings, the groups of patients differed in terms of paternal strictness only where social phobics rated their fathers' rearing style as more strict than agoraphobics rated theirs ($t=1.84$, d.f. = 56, $P<0.05$).

Table II gives, for each measure, a survey of the magnitudes of the statistically significant differences that were obtained. These were estimated, using Cohen's (1977,

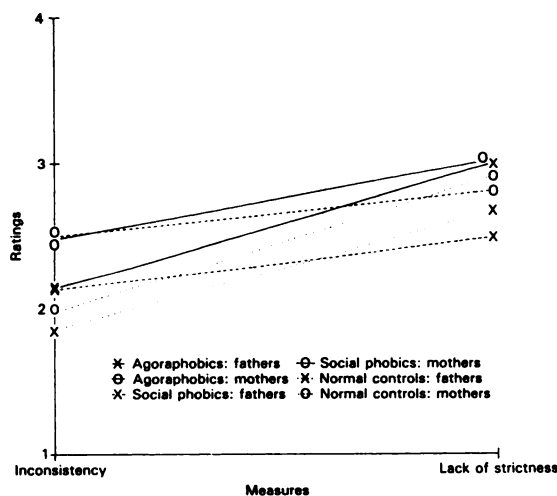


FIG. 2 EMBU consistency and strictness profile ratings (based on mean ratings) of non-patient normal controls, and of agoraphobic and socially phobic in-patients.

p. 40) measure *d* of effect size. Another way of clarifying the findings is to depict the means for each group for each variable graphically. This is done for the EMBU subscales in Fig. 1, while the means on the general ratings are given in Fig. 2.

Further analyses

For the variables dealing with consistency and strictness of parental upbringing, agoraphobics and social phobics differed in terms of paternal strictness only. To examine this difference more closely, the correlation between paternal strictness and each of the paternal EMBU dimensions was determined for each of the groups of patients and for the controls (see Table III). The overall picture that emerges from this table is that greater paternal strictness is associated with lower ratings for emotional warmth, and higher ratings for rejection and protection.

When the magnitudes of the effect sizes are taken into account (disregarding whether differences in correlations are statistically significant or not, which to a large extent depends on sample size), three notable differences emerge (Table III). The association between paternal strictness and

- (a) paternal rejection is more marked in the socially phobic group (72% of the variance in either of the two variables may be attributed to the variance of the other) than in the agoraphobic (34% shared variance) or normal controls sample (31%)
- (b) paternal affection is also more marked in the socially phobic group (29%) than in the agoraphobic (4%, a statistically non-significant correlation) or normal sample (10%)
- (c) paternal protection is not significant in the socially phobic group, moderately associated (12%) in the normal control sample, and sizeably so (37%) in the agoraphobic group.

TABLE III
The associations between paternal strictness and each of the paternal EMBU dimensions in each subject sample

	Agoraphobics N = 42	Social phobics N = 16	Normal controls N = 93
Father's			
Rejection	0.58**	0.85**	0.56**
Emotional warmth	-0.21	-0.54*	-0.32**
Over-protection	0.61**	0.20	0.34**

* $P \leq 0.05$, ** $P \leq 0.01$ (Pearson's *r*, one-tailed tests).
Note. For purposes of interpretation, Cohen (1977, p. 9) considers 0.10 small, 0.30 medium, and 0.50 large effect sizes. Strictness is rated here as 1 = not at all strict, and 4 = severely strict.

Discussion

Generalisability of previous findings

A total of 39 statistical tests were performed in the present investigation. The number of statistically significant findings that were produced (24) clearly exceeded what one would expect on the basis of chance alone (2).

The present findings obtained with in-patients formed an exact replication of those obtained with agoraphobics and social phobics who were treated on an out-patient basis, when compared with non-patient controls (Parker, 1979; Arrindell *et al.*, 1983b). Agoraphobic in-patients rated both their fathers and their mothers as having been less emotionally warm but only their mothers as having been rejective. The magnitudes of the differences found here were in close agreement with those obtained by Arrindell *et al.* (1983b). Socially phobic in-patients rated both their parents as having been rejective, as having lacked emotional warmth and as having been over-protective. The magnitudes of these differences were, for the rejection and emotional warmth dimensions, somewhat higher than the corresponding effect sizes reported in our previous study with out-patients. Thus, the findings obtained with socially phobic individuals were in line with expectations formulated by Parker (1979) and Arkin *et al.* (1986). Parker (1979) notes that,

“It would appear reasonable to suggest that a child exposed to parental characteristics of low care and overprotection, which inhibit the development of a satisfying parent-child bond, might subsequently experience greater difficulty in interpersonal situations and experience anxiety in social situations. Parental overprotection, by restricting the usual developmental process of independence, autonomy and social competence, might further promote any diathesis to a social phobia” (p. 559).

Although most clinicians share similar views with respect to the role of parental, particularly maternal, over-protection in the genesis of agoraphobia (cf. Mathews *et al.*, 1981, p. 35), the present controlled study, in which reliable and valid measures of the major dimensions of parental rearing style have been used, appears as the third in a row which fails to support such a contention. It does underscore the view that maternal rejection and lack of maternal warmth might be crucial factors in the genesis of agoraphobia (cf. Bowlby, 1980, e.g. p. 307). In addition, the possible role of the fathers' lack of an emotionally warm relationship with the recipient in the background of agoraphobia was highlighted.

Extension of previous findings

A secondary analysis of the findings of Arrindell *et al.* (1983b) showed that paternal rejection might be a factor distinguishing agoraphobic out-patients from socially phobic patients, the latter having the highest mean rating. This finding was replicated here too, the magnitude of the difference being larger for in-patients (0.71) than for out-patients (0.22). In addition, maternal rejection discriminated between the two groups of in-patients, the difference – social phobics having a higher average rating than agoraphobics – being of *medium* effect size.

As hypothesised, both agoraphobics and social phobics reported their fathers' and their mothers' style of upbringing as more inconsistent than normal controls indicated theirs to have been. Contrary to expectations, however, agoraphobics reported their fathers' rearing style as less strict (*small* difference) compared with controls. Maternal strictness did not differentiate patients from controls. The only variable out of four strictness and consistency measures that distinguished agoraphobics from social phobics was the latter's higher average rating for paternal strictness. Higher inconsistency ratings for both parents of socially phobic in-patients appeared to tally with the assertion of Arkin (1986) – based on work by Canavan-Gumpert (1977) and Teevan and McGhee (1972) – that a child punished when his/her behaviour does not meet high parental standards, and unrewarded when it does, may easily acquire an enduring 'fear of failure'. Our findings are also in close agreement with the contention of Arkin *et al.* (1986) that a reinforcement history that is insufficiently contingent might be of aetiological significance in psychological states and traits of social anxiety. Arkin *et al.* (1986) point out that:

“The individual who has suffered a chaotic or capricious reinforcement history may have difficulty discerning what rewards have been for, and may therefore view 'ill-gotten gains' as precarious and likely to be unattainable in the future. Even if abundant, the rewards are uninformative concerning one's competence. This set of circumstances would . . . place one's sense of self-worth at risk” (p. 196).

That inconsistency of parental rearing behaviour and attitudes is not only characteristic of social phobics but also typical of agoraphobics may relate to the fact that the latter, as is true of the former, have also been reported to be to some extent more socially anxious and less expressive than other patients and/or normal controls (cf. Chambless & Goldstein, 1980; Chambless, 1982; Arrindell & Emmelkamp, 1987).

Apparently, in line with descriptions of the parental background of socially phobic patients offered by Arkin *et al* (1986), paternal strictness and paternal rejection appeared in the present study as a distinguishing feature between the phobic types considered, in that

- (a) the sizeable correlation ($r=0.85$) that was observed between the two variables was clearly more marked in socially phobic than in both agoraphobic in-patients and normal controls, and
- (b) agoraphobics and social phobics could be distinguished on the basis of both variables.

More on specificity of factors

To date, straightforward empirical findings to indicate that certain aspects of upbringing are more specific for social phobia than for other phobias have been lacking in the research literature (Liebowitz *et al*, 1985). The present study found that ratings for paternal and maternal rejection and paternal strictness differentiated agoraphobics from social phobics, the latter group having the highest mean ratings in these terms. In addition, lower mean ratings were obtained for social phobics when compared with agoraphobics in terms of paternal and maternal affection. Further, greater paternal strictness was more effectively associated with more paternal rejection practices and greater lack of paternal affection (emotional warmth) in social phobics than in agoraphobics. Also, a more strict paternal rearing style was more strongly associated with greater paternal protection in agoraphobics than in social phobics, this association having appeared to be relatively non-existent in the latter group of subjects. Thus, one's own perceptions of one's parents' rearing behaviour appeared here to be *another* set of variables (see Amies *et al*, 1983; Liebowitz *et al*, 1985; Persson & Nordlund, 1985; Solyom *et al*, 1986) in which social phobia was distinguishable from the agoraphobic subtype. This finding underscores further the necessity of differentiating between the different phobic subtypes (Marks, 1969; Emmelkamp, 1982; Amies *et al*, 1983). However, compared with normal controls, higher ratings for the EMBU rejection and protection dimensions and lower ratings for the emotional warmth construct have been obtained for other (non-phobic) patient groups as well (e.g. Hoekstra *et al*, 1989; Emmelkamp & Heeres, 1988). Emmelkamp & Heeres (1988), for example, reported that drug addicts could be distinguished from normal controls in terms of paternal and maternal rejection, affection and protection, the

former group assigning ratings in a more negative direction than the latter. There are differences, however, between these different studies with respect to the magnitudes of the observed differences. For example, the magnitude of effect size for ratings of maternal emotional warmth in the comparison involving drug addicts and controls was *small*, whereas, in the present study, the corresponding difference between socially phobic in-patients and normal controls was *very large*. Thus, certain types of rearing behaviour and attitudes may have greater aetiological significance for one disorder than for another.

Final points

Parental rearing practices were not directly assessed here but were rated by the patient. It could be argued that such an indirect test may raise the possibility of one's memories producing a distorted view of one's parents' rearing behaviour rather than reflecting actual rearing practices. Wolkind & Coleman (1983) have suggested that any measure whose rating depends solely on the direct response of the subject may give misleading results; and that any study using such measures should be treated with caution. Wolkind & Coleman (1983) base their cautionary note on their empirical study which showed that while in a sample of young mothers an association was found between a depressed mood and the recall of poor parental relationships during childhood, among those women who had been depressed but had recovered by the time of questioning, no recalls of a poor relationship were given. In addition, a second retrospective measure of childhood experience, based on more factual details, was *unrelated* to current mental state. The findings of Wolkind & Coleman (1983) are, however, not in line with results from other investigations showing that retrospective reports made by adolescents and adults concerning their parents' behaviour and attitudes during childhood relate substantially to independent measures of these experiences (e.g. Bronson *et al*, 1959; Rosenthal, 1963; Solyom *et al*, 1976; Parker, 1984), thus implying that these self-histories may be interpreted as measures of the phenomenological impact of types of parental behaviour (Burger *et al*, 1975). In addition, Perris *et al* (1986, p. 174) have recently pointed out that, practically three decades ago, Ausubel avowed that what is relevant is not how rearing practices have really been, but how they were perceived by the subject undergoing such practices. Furthermore, it can be argued (Lewinsohn & Rosenbaum, 1987) that for clinicians the most important thing is how their clients construe their

past, not how it really was (see also Richman & Flaherty, 1987). Knowing which factors affect the quality of recall of parental rearing behaviour then becomes more important than obtaining corresponding independent objective indicators of such behaviour. Lewinsohn & Rosenbaum (1987), for example, have suggested that the endorsement frequencies of ratings of subjects on scales that assess recall of parental behaviour may depend on the negative or positive connotations of the items that make up such measures. They recommend that in future empirical studies independent raters evaluate the extent to which this is true. Further, one's memories may be distorted by mood – that is, one's memories may be 'mood-state dependent' (Bower, 1981). In line with many previous studies (cf. Blaney, 1986; Bower, 1981), Lewinsohn & Rosenbaum (1987) found empirical support for the hypothesis that the current depressive state of individuals, and not their past experiences with depression, influences the degree to which *negative* aspects of their parents (e.g. rejection) are recalled. However, they point out that future investigations should demonstrate that these negative aspects wax and wane with changes over time in the subjects' state of depression.

An additional issue is, of course, that the most secure knowledge in developmental psychology comes from large-scale, longitudinal study of groups of people over many years (e.g. Fishbein, 1984, p. 45). A final test of the developmental model awaits such a direct, prospective investigation. This, however, will be difficult to realise on practical grounds. In the mean time, the present findings point to the necessity of considering those parental rearing factors that have been replicated across cross-sectional studies in aetiological models of agoraphobia and social phobia. Because of the complex essential qualities of phobic disorders, such models (Mathews *et al*, 1981; Chambless, 1982; Emmelkamp, 1982; Foa *et al*, 1984; Hallam, 1985; Marks, 1987) are multifactorial in nature with attention necessarily directed to developmental, cognitive, conditioning, social and biological factors as well as the interdependence of these factors. Another reason for considering the relevancy of such data despite their retrospective character is that one's recalled early relationship with one's parents has been shown to be among the prognostic factors related to treatment outcome in phobic disorders in adulthood (Persson *et al*, 1984).

Further studies are needed to examine an aspect of parental rearing not considered here, but which is very likely to be related to the higher-order dimension of care (rejection v. emotional warmth), namely explicit or implicit threats of abandonment or suicide by one or both parents as

a way of disciplining a child. Such a factor has been implied by Bowlby (e.g. 1980, e.g. pp. 292–312) as one of the many different parental support factors that may be operative in the background of agoraphobia (Liotti, 1986, p. 115; but see Thyer *et al*, 1985).

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*W. A. Arrindell, PhD, *Clinical Psychologist, Faculty of Medicine of the Vrije Universiteit, Department of Psychiatry, Amsterdam Psychiatric Centre (The Valerius Clinic), Valeriusplein 9, 1075 BG Amsterdam, The Netherlands*; M. G. T. Kwee, PhD, *Clinical Psychologist, Joris Psychiatric Centre (Sint Joris Gasthuis), Department of Behavioural Psychotherapy, Sint Jorisweg 2, 2612 GA Delft*; G. J. Methorst, PhD, *Clinical Psychologist*; E. Pol, *Research Assistant*; B. J. M. Moritz, *Clinical Psychologist, Department of Clinical, Health and Personality Psychology of the University of Leiden, Hooigracht 15, 2312 KM Leiden*; J. van der Ende, *Research Psychologist, Department of Family Medicine, University of Groningen, Antonius Deusinglaan 4, 9713 AW Groningen*

*Correspondence