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An investigation of the personality, symptomatic, cognitive processing, and coping factors associated with the agoraphobia syndrome.

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AN INVESTIGATION OF THE PERSONALITY, SYMPTOMATIC, COGNITIVE PROCESSING, AND COPING FACTORS ASSOCIATED WITH THE AGORAPHOBIA SYNDROME

BY

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ABSTRACT

The purpose of the present study was an attempt to integrate a range of presenting difficulties found in the agoraphobia syndrome with the goal of identifying a set of factors which may predispose an individual to respond to stressors in an agoraphobic manner. It was hypothesized that a group of clinical subjects would differ from a nonclinical contrast group on selected variables. In particular, differences related to overall personality functioning, style of forming cognitive attributions related to somatic symptoms, and in patterns of coping with stressful situations were predicted.

The clinical subjects consisted of 50 male and female agoraphobics who had been referred for treatment on an outpatient basis. Each subject completed a set of questionnaires related to personality characteristics, patterns of fears, beliefs regarding the consequences of anxiety, measures of symptom expression, and styles of coping. The contrast group consisted of 50 subjects sampled from an undergraduate population who were matched with the clinical subjects according to age, sex, and marital status distributions. They were given the same set of questionnaires as the clinical sample so that group differences could be assessed.

The results suggested that a personality pattern consistent with passive withdrawal from stressors, diminished coping, the formation of dependent relationships, and a heightened fear of the effects of anxiety are associated with agoraphobia, and may act as factors predisposing an individual to become agoraphobic subsequent to an experience of high autonomic arousal.

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CHAPTER I

Introduction

Agoraphobia has been identified for over a century as a clinical syndrome, but it has only recently attracted considerable attention as a multifaceted disorder of relatively high incidence. Originally labelled as a "fear of the marketplace", it is increasingly seen as a complex phobic-anxiety neurosis involving a myriad of interacting factors. These are considered to include cognitive and physiological symptoms, underlying personality structures predispositional to an agoraphobic pattern of behaviour; an interchange between psychodynamic, learned, and cognitive factors in the development and maintenance of the disorder; and the individual's social, cultural, and familial contexts, as contributory aspects to the disability. This study reviews the current literature related to agoraphobia, and reports on some of the underlying personality, coping, cognitive, and symptom expression factors associated with the disorder. The overall goal is to integrate several aspects of the presenting difficulties to identify characteristics which may predispose some individuals to a pattern of behavioural and cognitive symptoms consistent with agoraphobia.

Agoraphobia has been defined in a variety of phenomenologically similar yet theoretically divergent manners, and considerable debate continues regarding its classification as reflecting either an underlying anxiety, phobic, depressive, or panic disorder. Hafner and Ross (1983) define agoraphobia operationally as the "... inability or reluctance to leave home, or to enter public places or vehicles, alone, or accompanied, because of anxiety or other unpleasant symptoms, or a fear of fainting,

falling, or otherwise losing control" (p. 376). Marks (1970) defines agoraphobia as a "...cluster of phobias centering around going into public places, accompanied by other non-phobic symptoms such as free-floating anxiety, mild depression, depersonalization, and mild obsessions and compulsions" (p. 552). These definitions focus on agoraphobia as primarily a phobic-anxiety disorder, although the object of the fear can be perceived as either the external location itself (e.g., public place), or the experience of the high anxiety (as some form of internalized discomfort arising from the cognitive and physiological symptoms associated with elevated autonomic nervous system activation). Similarly Silon (1984) defines agoraphobia as "...the rampant fear of the loss of control of one's body and mind," (p. 134), Goldstein and Chambless (1978) define it as a "fear of fear" (p. 51), and Snaith (1968) defines it as anxiety arising from being away from a designated place of safety, and thus in this manner agoraphobia is principally the absence of safety rather than the presence of a feared object.

Demographic Characteristics

Agoraphobia occurs with a relatively high frequency in the general population, with estimates ranging from six to eight per thousand (Agras, Sylvester and Oliveau, 1969; De Moor, 1985; Tearnan, Telch and Keefe, 1984), and is consistently found in higher proportion in women than in men (estimates range from 66 to 95% women, Marks & Hearst, 1970; Tearnan et al., 1984). In general phobic populations, agoraphobia is

reported to be the most commonly found fear constellation (De Moor, 1985; Foa, Steketes, & Young, 1984; Popler, 1977), with an average age at onset in the mid to late twenties (usually ranging from 18 to 35, Marks & Hearst, 1970; Tearnan et al., 1984). It is often reported to be associated with the experience of panic attacks, and to exhibit a chronic course in most individuals, although some people demonstrate a cyclic pattern characterized by remissions and relapses (Foa et al., 1984; Shafar, 1976). Hafner (1984) reported that female agoraphobics may experience up to five times the incidence of panic attacks relative to male agoraphobics, thus some sex differences in the experience of the disorder may exist. More recently, however, no sex differences have been found in age at onset, duration of phobia, socioeconomic status of the patient, responsiveness to treatment nor, in contradiction with Hafner's findings, in overall panic frequency (Chambless & Mason, 1986). Most agoraphobics are married (Marks & Hearst, 1970; Tearnan et al., 1984). Birth order has been found to have no significant correlation with the phobia's presence, although childhood fears and an increased incidence of agoraphobic-like symptoms in other family members has been detected (Bandura et al., 1980; Marks, 1970). Marks (1970) reviewed research findings related to agoraphobia and reported that it has been labelled previously in diverse manners (e.g., anxiety hysteria, street fear, phobic-anxiety depersonalization syndrome, anxiety syndrome, phobic-anxiety state, severe mixed psychoneurosis, and pseudoneurotic schizophrenia). We will now discuss agoraphobia in relation to (1) symptom expression, (2) cognitive processes, (3) coping styles, and (4) personality characteristics. For a further literature review please refer to APPENDIX K.

1. Symptomotology Associated with Agoraphobia

Agoraphobia is generally reported as involving a high level of subjective discomfort, arising from both the experience of physiological arousal associated with anxiety (and hence ANS activation), and from a series of cognitions focused on the potential outcome of these physical symptoms. De Moor (1985) describes agoraphobia as characterized by (1) avoidance behaviour, centered on the withdrawal from specific locations which are perceived as being a considerable distance from a place (such as home) or a person (such as one of the individual's family members) designated as "safe", and (2) by anticipatory anxiety, focussed on the worry over the possible consequences of the panic attack. He reported that the intensity of this anxiety was related to the individual's subjective evaluation of the likelihood an attack might occur; a greater probability would be associated with a higher level of anticipatory anxiety. Initial experiences of panic are generally perceived by the individual as arising suddenly without a precipitating event, and, therefore, are described as having a spontaneous quality. Similarily, Foa et al., (1984), Ost and Hugdahl (1983), Reiss et al., (1986), and Chambless and Goldstein (1981) identify cognitive, behavioural, and physiological components of the agoraphobic syndrome.

Popler (1977) developed a "multimodal" conceptualization of agoraphobia, based upon the "BASIC ID" assessment of possible contributory factors to a psychological disorder, as originally outlined by Lazarus (1973). Utilizing this format he described agoraphobia as involving

difficulties in: (1) Behaviour - in that as a result of the patient's avoidant pattern he/she is seriously restricted in their ability to shop, maintain employment, and engage in most daily activities away from their homes without considerable distress. (2) Affect - the experience of anxiety is central to the disorder (and, in addition, a significant level of depression is frequently reported by other authors, although not mentioned by Popler). (3) Sensations - physical symptoms (as outlined below) experienced during the panic attack due to high ANS arousal. (4) Images - focused on distressing events (such as memories of prior experiences of anxiety in public locations) which serve to reactivate fears of a recurrence of the anxiety. Butler and Mathews (1983), for example, postulate that agoraphobics have an increased set of "threat-related" memories which result in a heightened sensitivity to cues of potential anxiety in the environment, and to a tendency to interpret such input as threatening. (5) Cognitions - which often involve a series of irrational or unrealistic beliefs and expectations about the consequences of a panic attack (such as the possibility that they could cause a heart attack, death, mental illness, loss of control and subsequent public embarrassment), or center on the individual's perceived inability to function in an independent and adaptive manner (as related to the perceived loss of self-efficacy, as outlined below). (6) Interpersonal relationships are strongly affected by the individual's phobic anxiety and subsequent avoidance behaviour (e.g., the inability to shop, work, attend social functions). These relationships may in turn be responsible for helping to maintain the disorder (e.g., through

a spouse's conscious or unconscious pattern of rewarding the individual for staying at home as a means of control, or through the agoraphobic's potentially reinforcing secondary gain in not having to work). (7) Drugs: recent research indicates that antidepressant and antianxiety medication is of benefit to some agoraphobics in maintaining symptom control.

Agoraphobia is consistently associated with the experience of physiological symptoms arising from autonomic arousal, which at intense levels can result in a panic attack. These symptoms are reported to include heart palpitations, difficulty in breathing, dizziness, faintness, weakness in the limbs, hyperventilation (Foa et al., 1984) as well as chest pain/discomfort, hot and cold flashes, sweating, tingling in the hands and feet (De Moor, 1985), gastrointestinal upset, and tachycardia. These experiences are highly aversive, and hence provoke fear, particularly because the individual is not able to immediately attribute them to a cause. It is thus postulated that the agoraphobic pattern of avoidance originates as an attempt to remain away from situations in which the panic is associated (and thus could potentially recur), may later generalize to similar situations, and may eventually transform such that the avoidance is precipitated by fear of anxiety (and its potential effects) rather than fear of the anxiety-provoking location. Combing several variables, Silon (1984, p. 136) identified a series of common agoraphobic symptoms which were divided into physiological, cognitive, and emotional response categories. (See Table 1 for a replication of her symptom checklist).

Table 1

Symptomotology Associated with Agoraphobia

Physiological Response	Cognitive Response	Emotional Response
Feelings of warmth	I can't do it	Fear
Heart palpitations	What if I make a a fool of myself	Stark terror
Tightness in chest	People are looking	Trapped, no way out
Rapid, pounding heartbeat	I could faint	Worried
Butterflies in stomach	I might get sick	Uneasiness
Weakness	It's a heart attack	Feelings of impending doom/gloom
Rubbery, weak legs	I'm going to explode	Panic
Hyperventilation	I'm embarrassed to tell anyone	Isolated, lonely
Dizziness	No one will help me	Sad
Sweaty palms	I'm going crazy	Embarrassed
Sweaty all over	I'm trapped	Criticized
Dry mouth	Get me out of here	Rejected
Nausea	I'm not going out	Angry
Diarrhea	I can't go alone	Hopeless
Tremors	I'm going to die	Depressed
Confusion	I can't go on	Helpless

Strange, speeded-up thoughts

I've lost control

Suicidal

2. Cognitive Factors Associated with Agoraphobia

Coincident with the physiological arousal are a characteristic set of cognitively-based fears and expectations, which are reported to typically focus on anticipated negative consequences of anxiety, and include the fear that high anxiety may precipitate a heart attack which potentially could be fatal, that anxiety could be a sign of the possibility of going crazy, or that panic could result in the loss of control over one's self and hence the individual could become embarrassed, look foolish or be centered out in a public location (De Moor, 1985). Frequent cognitive symptoms also include periods of depersonalization and unreality during the panic attack (Foa et al., 1984). These fears, in combination with anticipatory anxiety (fear of fear) are thought to lead to the avoidance of any situations believed by the individual to have the power to elicit their recurrence. Hallam (1978), for example, postulated that agoraphobic fears are associated with cues in public locations (such as crowds, noise, waiting in lines), rather than fear of the location itself.

Bandura's (1977) "self-efficacy" theory may also be important in the cognitive processes involved in agoraphobia. His theoretical system is based on the postulate that an individual approaches a situation with an expectation or belief about their level of mastery in coping and performing there. These expectations of personal efficacy arise from a variety of sources (such as prior experiences in the situation, vicarious

experiences, verbal persuasion/influence from others about the consequences of certain actions in that situation, physiological factors (e.g., their arousal level can be seen as a measure of how well they are doing: "if I'm anxious I'm doing poorly"), and are related to the persistence with which an individual continues in that situation (e.g., doesn't withdraw and avoid as is commonly seen in agoraphobia) even though there may be some adverse qualities present. As applied to agoraphobics (Bandura et al., 1980), it is argued that anxiety experiences diminish their level of self-efficacy as they cause a perception of an inability to function in public situations without debilitating anxiety. As a consequence agoraphobics will approach these situations with limited persistence, and may become dissatisfied (and therefore depressed) if their level of performance is discrepant with their personal standards for performance (e.g., they feel they should be able to do better).

Cognitive factors also contribute through an increased sensitivity and focus of attention on bodily sensations as cues of anxiety. Reiss, et al., (1986), for example, distinguish between (i) "anxiety expectancy", as the process by which associations are formed between stimuli and anxiety responses (CS-CR conditioning) and (ii) "anxiety sensitivity", as the belief system which perpetuates the fear of the effects of anxiety (e.g., death, embarrassment, heart attack, mental illness). They state that agoraphobics have characteristic cognitive patterns of anxiety sensitivity; therefore, this disorder may involve heightened attention to bodily cues as warnings of anxiety due to the perceived

high potential cost of an attack, and a distortion in the meaning attributed to those sensations. Consequently, agoraphobics may develop a pattern of avoidance of situations in which it is feared the anxiety may recur.

In general, there appear to be several interrelated factors which interact to increase the likelihood of the development of an agoraphobic pattern of phobic-avoidance, centering on coping styles or preferences for handling stressors, underlying personality dynamics and dysfunctional social/interpersonal interactional patterns. These are reviewed in the next sections.

3. Coping Styles

There is little consensus on the relationship between specific predispositional factors and the onset of agoraphobia, although a variety of situational psychosocial stressors have been identified as frequently present prior to or at the onset of the agoraphobic's initial anxiety attack. These stressors have frequently been reported to include the recent death or illness of a significant other, an episode of severe physical illness, marital dysfunction or interpersonal conflict, pregnancy and/or delivery of an infant, stress/exhaustion related to work, sexual disorders, residential moves, financial distress, or involvement in an accident (De Moor, 1985; Last, Barlow, & O'Brien, 1984; Marks, 1970; Ost & Hugdahl, 1983; Shafar, 1976). One or more stressors are estimated to be present in 60-96% of the agoraphobic population (prior to the onset of the disorder). Bandura et al., (1980) speculate that agoraphobia may be precipitated in one of two manners:

(i) either as a consequence of an acute distress, or (ii) as the accumulation of minor problems resulting in a diminished overall ability to cope with stressors.

Although the association between these stressors and the onset of agoraphobia is unknown, it can be speculated that these traumatic events may lower the individual's ability to cope with further adversity. The experience of an anxiety attack may contribute to the person becoming overwhelmed, and subsequently lead to the withdrawal and avoidance of an aversive situation, rather than with persistence despite high anxiety. As applied to agoraphobia, therefore, these individuals are less likely to cope with the panic attack and may become debilitated by it whereas an individual who was without significant stress would not be as severely affected. In addition, the presence of these stressors may act to elevate ANS arousal and make the occurrence of an initial attack or the recurrence of further anxiety more likely.

A related area of theoretical interest and applied research focuses on the style of coping responses individuals employ in dealing with stressful situations. Although this body of literature has not been applied primarily to agoraphobia, it is likely that particular patterns of coping with anxiety may act as predisposing factors in the development of the disorder. Folkman and Lazarus have investigated coping styles in clinical and nonclinical populations, and have proposed that an individual reacts to a stressful situation by initially appraising whether that situation poses a threat, determining if anything can be done to minimize the potential harm and/or maximize the possible

benefit associated with the stressor, and then employing one of several coping strategies (such as active problem-solving, avoidance, seeking social support) to activate a response. They define "coping" as "... the cognitive or behavioral efforts made to master, tolerate, or reduce external and internal demands and conflicts among them" (Folkman & Lazarus, 1980, p. 223).

These coping strategies are thought to fall into one of two global classes: (1) those employing an active problem-solving component, and (2) those which act to reduce or control emotional distress. Although most individuals (98%) react with a balance between both styles in daily situations (Folkman & Lazarus, 1980), work-related stressors, and those which are perceived as within the individuals power to change were associated with a heavier reliance on problem-solving coping strategies, whereas health-related stressors, or those perceived as unchangeable were associated with more emotion-based coping styles (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). No significant sex differences were consistently found in preferences for emotion-based versus problem-solving based coping styles (Folkman & Lazarus, 1980).

Few studies have systematically examined the possible relationship between coping styles, as described above, and personality variables, although a positive relationship has been found between depression and "wishful thinking" as a coping style, and a negative relationship between depression and the use of problem-solving coping. As well, positive relationships were found between anxiety and the tendency to utilize wishful thinking and to seek social support, whereas a negative

relationship was found with the use of problem-solving techniques (Vitaliano, Russo, Carr, Maiuro, & Becker, 1985). Mitchell and Hodson (1983) found diminished self-esteem and heightened depression associated with the increased use of avoidance in a sample of physically-abused women.

Applied to an agoraphobic population, it can be speculated that given that these individuals (1) perceive their situations as focused on health-related concerns (e.g., anxiety may precipitate a heart attack), they (2) feel somewhat powerless to change their lifestyles on their own, and they (3) experience heightened levels of depression and anxiety, and they may tend to rely on emotion-based coping strategies to deal with the stressors associated with their phobic disorder. For example, they may cope by heavy reliance on social support (related to increased dependency), avoidance and wishful thinking, and with less use of problem-solving strategies relative to a general population.

4. Personality Characteristics

With few exceptions, there is a paucity of research systematically examining the role of personality variables in agoraphobia; however, many authors have reported on personality styles based upon clinical experience. In general, agoraphobics are described as having a passive dependent personality style, with a concomitant history of depressive illness (Breier, Charney & Heninger, 1984; De Moor, 1985; Fisher & Wilson, 1985; Foa et al., 1984; Hallam & Hafner, 1978; Hand & Lamontagne, 1976; Shafar, 1976; Tearnan et al., 1984; Vandereycken, 1983).

Bennun (1986) speculates that an agoraphobic's feelings of "...isolation and dependency can lead to depersonalization and fragmentation because the patient's self-image and identity is dependent on others for its validity and existence" (p. 186). They likely feel more helpless and powerless relative to normals (Fisher & Wilson, 1985). As well, they are reported to be perfection-seeking, analytical, hardworking, competent, sensitive to criticism and rejection, overly concerned about losing control and being embarrassed (Silon, 1984), and have a diminished ability to connect emotional responses to appropriate causes (Goldstein & Chambless, 1978). Buglass et al., (1977) report that agoraphobics fear illness in an increased incidence in comparison to normal controls (even in situations involving physical difficulties which are not usually perceived as anxiety-provoking), Marks and Hearst (1970) found higher levels of social timidness and anxiety in agoraphobics, and Foa et al., (1984) found a correlation between agoraphobia and the presence of hypochondriasis. In opposition to these theoretical positions and research findings, however, is a recent review by Rapp and Thomas (1982) in which they conclude that a large proportion of agoraphobics have "normal" personality structures.

In comparison to patients with other phobic and psychological disorders, Rapp and Thomas (1982) conclude that within a group-setting, agoraphobics fail to behave in a characteristically neurotic manner; they are supportive of fellow group members and are able to form constructive relationships with each other. It is argued, therefore, that agoraphobia should not be considered as an "anxiety neurosis"

because other clinical groups with neurotic labels have been found to exhibit higher levels of interpersonal conflict within a group setting (and hence are not able to meet each other's needs).

Hallam and Hafner (1978) found that relative to general phobics, agoraphobics were found to be more depressed, demonstrate a higher incidence of somatic symptoms, and exhibit more death/illness fears associated with the outcome of their bodily sensations. Amies, Gelder and Shaw (1983), however, failed to find differences between agoraphobics and social phobics in the incidence of anxiety or obsessional symptoms or medical problems, or in level of depression. The agoraphobic population was older, had a higher proportion of women, a later age at onset, and had experienced more complaints of depersonalization symptoms relative to those with social phobias.

Fisher and Wilson (1985) failed to find differences between agoraphobics and normal controls in the level of ANS arousal, but did find a higher incidence of overrating anxiety and physical symptoms in the phobic group, which lead them to conclude that the "fear of fear" phenomenon was more cognitively than physiologically-based. In an attempt to explain the consistently reported age (early adulthood) at onset found across most studies, Foa et al., (1984) speculate that the development of agoraphobia may partially be a response to the expectations of lessened dependency upon parental figures associated with early adult personality development. Therefore, issues related to poor resolution of dependency conflicts may reemerge at this time, and may be exacerbated by the presence of background stressors (such as loss/illness of a

significant other, or other factors as outlined above).

There have been extensive studies utilizing factor analytic techniques to explore underlying personality structures associated with agoraphobia. Most, however, have not included general personality measures (e.g., have only factor analyzed a fear inventory) or have failed to utilize clinical subjects (and hence completed an analogue study, usually with American college undergraduates). Most researchers (Gulas, McClanahan, & Poetter, 1975; Landy & Gaupp, 1971; Meikle & Mitchell, 1974; Rothstein, Holmes, & Boblit, 1972; Rubin et al., 1968; Wade, 1978; Wolpe & Lang, 1964) who used a fear survey alone (of which Wolpe's (1964) Fear Survey Schedule is the most common) on a phobic or analogue population typically report finding 4 or 5 significant factors representing fear groups generally labelled as:

(i) fear of small animals

(ii) fear/dislike of interpersonal conflict, aggression, or rejection

(iii) fear of sexual activity, or of the violation of social moral standards

(iv) fear of physical illness, death, or medical procedures

(v) fear of isolation/loneliness/alienation

Other smaller factors typically reported have been related to fears of noises, water, and natural destructive phenomena (e.g., lightening, thunder).

Other studies (Mermaum & Sticker, 1972; Bernstein & Allen, 1969; Braun & Reynolds, 1969) have completed separate analyses for men and women and have generally found few consistent sex differences although

the relative ordering of factors (e.g., fear of animals versus fear of aggression as the first rather than second factor) demonstrates some variation. Utilizing a general "neurotic" population, Bates (1971) found a significant correlation between a Fear Survey factor, labelled "Interpersonal Concerns" with the Pt, D, Si, and Sc scales of the M.M.P.I., and found Fear Survey total scores correlated significantly with the D, Mf, Pt, Sc, and Si scales. In addition, Jacobson et al., (1978) found nine factors (Depression, Anger, Fatigue, Confusion, Friendliness, Anxiety, Somatization, Fear, and Guilt) using the Fear Survey Schedule with a psychiatric outpatient population. Of particular interest was the presence of independent factors associated with Depression, Anxiety, Somatization, and Fear, which should theoretically emerge within an agoraphobic population.

Several studies have completed factor analytic investigations utilizing an agoraphobic population. Mavissakalian (1986) found an "agoraphobia" factor independent of other Fear Survey factors, suggesting that agoraphobia may exist as an independent specific syndrome, and not as a particular combination of general fears; while Neiger, Atkinson, & Quarrington (1981) failed to find a specific "agoraphobia" factor using a sample of female agoraphobics, Hafner and Ross (1984) found two higher order factors which they labelled: (1) agoraphobia - with fears focused on travel, claustrophobia, going shopping, being on the street or in open places, and crowded stores; and (2) a general symptoms group centering on miscellaneous items including social fears, and fear of criticism.

Hallam and Hafner (1978) found a distinct agoraphobia factor in a study utilizing general phobic and agoraphobic subjects, which lead these authors to conclude that the disorder occurs in a syndrome-like (all or none, without a gradient of severity) fashion. The agoraphobic patients' data revealed ten factors representing fears of social situations, animals, travel, general anxiety or depression, illness/ death, shopping and crowds, height and deep water, sleeplessness/dizziness/ fear of criticism, blood/injury, and remaining miscellaneous items (thought to represent areas not usually feared by this population, such as fear of dogs or cats). These factors were postulated to be unique to agoraphobia, and different from the patterns which emerge in non-agoraphobic samples, for whom fears focused on areas such as travelling were subsumed on more general factors associated with social anxiety rather than as a specific area of concern.

In a similar manner, Johnston et al., (1984) found an agoraphobic factor distinct from claustrophobia, and Arrindell (1980) proposed a "factorial definition of agoraphobia" in which he identified three higher order factors: (1) general social anxiety and somatization, (2) a factor which loaded on Fear Survey items (such as fears of being alone, crossing streets, journeys, and enclosed spaces), and (3) an agoraphobic specific factor (with items centered on fears of open spaces, travelling, uneasiness in crowds, fainting in public). He also postulated that agoraphobia was "not reducible to a different subset of fears" (p. 238), and therefore, is found in an all or none fashion.

In summary, while personality factors appear largely speculative

due to the paucity of studies employing general personality measures along with fear surveys and cognitive attributional evaluations, most authors tend to make some consistent assumptions: (1) that agoraphobia tends to occur in a syndrome fashion, and does not simply constitute a particular subset of general fears; (2) that agoraphobics have a unique personality profile characterized by a heightened incidence of passive, depressive, dependent, and nonassertive coping styles; and (3) that consistent sex differences between agoraphobic patients have not been demonstrated.

Interpersonal - Current familial/marital functioning

The role of familial and marital factors in agoraphobia has been speculated on for several years within a variety of theoretical perspectives. Behaviour therapists, for example, have recognized the potential secondary gain of the disorder (in the sense that attention, and/or not having to work and maintain daily social expectations may be rewarding for some individuals), while family therapists have centered on the role that the phobia may play in the family's interpersonal dynamics (e.g., as a symptom of a disharmonious marital relationship), and psychodynamic theorists have examined agoraphobia from the viewpoint of reflecting an underlying developmental failure between the agoraphobic and their parental figures to resolve issues related to dependency. Systematic research has, however, failed to find a consistent pattern of interpersonal dysfunction.

Bennun (1986) states that the interpersonal aspects of agoraphobia

are important as these patients often show excessive dependencies in their relationships, and because significant others often play a "safety signal" role (in that agoraphobics can often function in feared situations provided they are with a specifically-designated "trusted other"). Similarily, Goldstein and Chambless (1978) found that the majority of their agoraphobic subjects demonstrated interpersonal conflicts, and that their spouses may act to reinforce dependency and discourage autonomous behaviour.

Some studies (Buglass et al., 1977; Fisher & Wilson, 1985) report no evidence of marital conflict, whereas others (Hafner, 1984; Vandereycken, 1983) have identified patterns of complementary interaction between spouses focused on maladaptive expression of hostility, attachment, and autonomy, or report general pathology in marital interactional patterns, although the exact nature of these difficulties remains unknown (Arrindell & Emmelkamp, 1985; Bland & Hallam, 1981; Goldstein & Swift, 1977; Milton & Hafner, 1979). Hafner (1984) reports that the husbands of female agoraphobics adjust to having their wives dependent on them, and tend to either (1) become supportive of their spouses' difficulties, and repress feeling of anger (and consequently exhibit difficulties with the changes in their spouses' behaviour concomitant with treatment); or (2) tend to be unsupportive and critical of their spouses' inability to function in an adequate manner (and thus continue in a critical mode in their interactions even after treatment, as the focus of criticism shifts to a new area).

In addition, there is evidence to suggest that there are differences

in the families of agoraphobics depending on whether the patient is male or female such that family interaction patterns, and the personality profiles of family members demonstrate differences according to whether the agoraphobic is the wife/mother versus husband/father family member (Mlott & Vale, 1986). When the effect of including the spouse either as a "cotherapist" in a treatment program, or as a patient in a "couple-oriented" treatment format was investigated, some research supported spouse involvement (Vandereycken, 1983; Hafner and Ross, 1983), other studies found little effect of involvement in treatment outcome (Cobb et al., 1984), while Bland and Hallam (1981) report a negative correlation between treatment outcome and the overall dissatisfaction on the part of the agoraphobic toward their spouse (thus suggesting that outcome is related to marital issues, and consideration to the marital relationship is warranted).

In summary, by the nature of the phobic disorder the individual's pattern of interpersonal relationships will be affected. The extent to which marital or familial factors play a role in the etiology or maintenance of the disorder remains unclear, as does the format for or necessity of involvement of a treatment program at a marital and/or familial level.

Sex Differences in the Symptomotology of Agoraphoia

Extensive research has been conducted examining whether there are sex differences in agoraphobia; again, however, few consistent findings emerge. These potential differences are of interest in two aspects:

(1) there is a much higher incidence of agoraphobia in women; and (2) it is speculated that women may be more susceptible to agoraphobia because the disorder can be seen as exemplifying sex-role stereotyped differences (in that agoraphobics are seen as nonassertive, passive, avoidant, dependent as are women in North American stereotypes). Mavissakalian (1985) failed to find consistent differences between male and female agoraphobics on personality differences, symptomotology, or in cognitive attributional styles. Similarily, Chambless and Mason (1986) found no sex differences on demographic factors, age at onset, duration of disorder, socioeconomic status, panic frequency, on responsiveness to treatment, or in susceptibility to dropping-out of treatment programs. They did, however, find that men tended to report higher levels of depression, whereas women tended to score higher in anxiety. As well, inconsistent findings have been reported on the relative intensity of the phobic symptoms. Geer (1965), and Farley and Mealiea (1971), for example, found higher total scores in women on a fear inventory, whereas Thyer et al., (1985) failed to find a statistically significant difference on the same measure using a different sample (although they do acknowledge a higher trend in general in women on fear surveys). Overall, these findings suggest that no major sex differences exist; however, it can be speculated that a passive dependent personality style in either a man or woman may lead to increased susceptibility to an agoraphobic-like disorder. The higher incidence in women may, therefore, reflect sex-differences in the general population, in that women may be more likely to exhibit a passive

dependent personality style relative to men.

In summary, the findings remain inconclusive, with some studies reporting sex differences on some personality variables. The findings of a markedly higher incidence of agoraphobia in women have been accounted for in a variety of manners, including (1) differences in cultural standards - society does not encourage women to be "competent, instrumental, and assertive" (Chambless & Mason, 1986, p. 234), as well as nurturant and expressive; (2) male agoraphobics tend to withdraw and avoid many public locations but continue to force themselves to work out of financial need. Consequently their overall functional level of disability is less severe (and thus they do not seek treatment, and hence disort the incidence data); (3) in addition, Rapp & Thomas (1982) also suggest that male agoraphobics may rely more heavily on drugs and alcohol to control their anxiety symptoms (and thus are less motivated to attend treatment), and (4) that women experience a higher incidence of endogenous anxiety (and are thus more susceptible to developing an anxiety disorder).

Summary of the Review of the Literature and Purpose of the Current Study

In summary, agoraphobia can be seen as a complex anxiety/phobic disorder of relatively high frequency. Components affecting an individual's susceptibility to agoraphobia may include the presence of background psychosocial stressors, a personality constellation associated with a passive dependent form of interaction, diminished coping abilities, and a style of cognitive beliefs and attributions

related to fears of the experience of anxiety.

It is evident however, that further research is needed in several areas. A better delineation of the interactive role of early developmental experience and current psychosocial stressors in the predisposition toward an agoraphobic pattern of behaviour is necessary. As well, there is a paucity of research focused on the presence of personality factors associated with the disorder despite extensive theoretical speculation.

The general foci of the present study are twofold: (1) to determine whether evidence can be found to support the position that the agoraphobia syndrome is associated with a characteristic personality profile (which may have acted to predispose an individual to be susceptible to a phobic/anxiety disorder, and which may have helped to perpetuate the presence of that disorder and thus act to maintain it (at least in an indirect manner). (2) to integrate several areas related to an individual's functioning (e.g., personality variables, coping styles, cognitive characteristics, and agoraphobic symptom expression) which have only been considered independently in previous research. Although previous studies have investigated discrete aspects of agoraphobia, no prior research has included a wide variety of personality, cognitive, coping, and symptom description measures simultaneously to allow the exploration of a composite of variables. The current research study, therefore, will combine several theoretically related areas of functioning to examine the agoraphobia syndrome, and will thus allow the exploration of underlying factors associated with the disorder as a whole.

Based upon a review of the literature, it may be postulated that agoraphobics have characteristic personality and cognitive attributes which have acted to predispose the development of the disorder. For example, he/she may tend to interact passively when faced with stressful situations, form maladaptive dependent relationships, and evaluate the experience of anxiety as highly aversive. These factors may interact such that the individual presents themselves as highly fearful, with multiple symptoms focused on elevated somatic concerns, depression, and generalized phobic-anxiety. This constellation of difficulties may be further perpetuated by the use of maladaptive styles of coping with stressors.

Hypothesis

The previous discussion and review of the literature leads to the following hypothesis:

It is hypothesized that a group of agoraphobic patients will differ from a contrast group of normal individuals on a variety of (1) personality, (2) symptom description, (3) cognitive, and (4) coping measures. The agoraphobic group should exhibit higher levels of depression, anxiety, concern over and focus upon bodily symptoms, and social isolation and withdrawal. More frequent general and agoraphobic-specific fears and heightened concerns regarding the consequences of anxiety experiences may be exhibited relative to a set of normal controls, as well as a pattern of coping with stressors in a maladaptive manner.

This hypothesis will be specifically tested through the following measures:

1. personality measure: Minnesota Multiphasic Personality Inventory;
2. symptom description measures: Beck Depression Inventory,
   Brief Symptom Inventory
   Fear Survey Schedule
3. cognitive measures: Agoraphobic Cognitions Questionnaire,
   Body Sensations Questionnaire,
   Internal-External Locus of Control Scale
4. coping measure: Ways of Coping Checklist (modified version)

As an area of additional interest, it is predicted that within the agoraphobic sample, there will not be any overall sex differences in the presentation of symptoms, or in the personality profile of the subjects. This prediction is based upon a review of the literature which generally has failed to find consistent differences as a function of the subject's sex when personality or symptom indices are considered separately.

CHAPTER II

Method

The purpose of this study was to investigate the underlying personality characteristics associated with the Agoraphobia syndrome, with the goal of helping to develop a model of it's etiology. This chapter will discuss the methodology and procedure used to test the experimental hypothesis, which stated that differences on several measures would be found between a group of agoraphobic patients and a comparison group of normal subjects.

A group of agoraphobic patients referred to an outpatient psychology department for treatment formed the clinical group. They were compared with a second set of subjects (who acted as a normal contrast group) on a variety of dependent measures, including a general personality inventory, a fear survey schedule, and questionnaires assessing the individual's level of depression, set of cognitive beliefs related to the experience of anxiety, and concerns related to bodily sensations. In addition, a measure of locus of control was given to assess the degree to which the agoraphobic sample differed from the contrast group according to that dimension, and a questionnaire related to preference of particular coping strategies in dealing with stressful situations was completed.

Subjects

Fifty subjects who were referred for treatment on an outpatient basis for agoraphobia comprised the clinical sample. They were asked to complete a series of questionnaires as part of an assessment and

treatment evaluation package at three intervals: (1) prior to the commencement of a therapy program (as a pretest), (2) immediately after its completion, and (3) after a six-month treatment follow-up period. As the current study is focused on the personality characteristics associated with agoraphobia, only the pretest data were used. Each of the agoraphobic subjects was interviewed to determine whether he/she was appropriate for treatment, and to ensure that he/she met the diagnostic criteria consistent with the Diagnostic and Statistical Manual of Mental Disorders (3rd edition; American Psychiatric Association, 1980) category of Agoraphobia with panic attacks (300.21). (See Appendix A for the exact criteria). In general, the agoraphobics presented with phobic/anxiety symptoms (which had been occurring over a relatively lengthy period) and were avoiding situations in which feared an aversive level of anxiety might recur. In addition, the agoraphobic sample was assessed as demonstrating the phobic disorder as its area of primary concern (and thus not secondary to other difficulties).

The contrast group was recruited from undergraduate students at the University of Windsor who were enrolled in psychology courses. They were matched such that the overall group was approximately equivalent to the clinical group according to age, sex distribution, and marital status. These demographic variables were selected on the basis of a review of the literature which indicated that agoraphobics differ from other general psychiatric and phobic populations according to these dimensions. They were offered experimental bonus points as renumeration for participation, and were given the opportunity to receive some

general feedback related to the study findings if they desired it.

The demographic characteristics of the sample are given in Table 2. No significant difference was found between the clinical and contrast group in their mean ages (F = 0.09, n.s.). Also, no significant differences in the marital statuses & sex distributions between the clinical and contrast groups was found. The female: male ratio (4:1) in the clinical sample is approximately equivalent to that reported in the general literature for agoraphobic (in which approximately 66-95% of all agoraphobics are women).

Procedure

The clinical subject data were gathered as part of an on-going assessment, research, and treatment program currently established in the Department of Psychology at the Windsor Western Hospital Centre. Each subject was asked to complete a series of questionnaires as part of their clinical assessment, to help clarify his/her presenting difficulties, and to ensure that he/she would be suitable in a cognitive-behavioural treatment program. With the exception of the coping styles questionnaire, each of the measures was given prior to the commencement of a treatment program. As the coping checklist was not part of the original test battery, it was completed by the clinical subjects either during their therapy period, or after the completion of the treatment program. Therefore, interpretation of the results of this measure needs to take into account the fact that it was completed after the treatment program had been initiated.

Table 2

Demographic Characteristics of the Sample

	Clinical Group	Contrast Group
Number of Women	40	38
Number of Men	10	12
Mean Age (S.D.) of Women	34 (5.6)	37 (11.6)
Mean Age (S.D.) of Men	33 (6.2)	31 (5.8)
Marital Status		
Percent Married	72	64
Single	14	16
Divorced	14	20

The contrast group subjects were tested in small groups of 10-15 people. Demographic data collected at the time of testing included the subject's age, sex and marital status. The subjects were asked to complete a series of questionnaires anonymously.

Psychometric Instruments

To test the hypothesis that group differences would be found between the clinical and contrast group samples, subjects were asked to complete a series of questionnaires related to: (1) general personality (2) symptom expression (3) cognitive beliefs related to the experience of anxiety, and (4) styles of coping.

I. General Personality Measure: MMPI

Subjects in the clinical and contrast groups were asked to complete the MMPI. This measure is of interest because it addresses personality variables related to clinical areas, and is widely accepted across North America as a reliable and valid personality inventory (and thus allows comparisons of this study with other related research). In addition, it has a series of validity scales which help to control for biasing response sets on the part of the subject. The administration of the MMPI also allows the subjects to complete the items for the social alienation and somatic complaints subscales (Harris & Lingoes; 1955). (See APPENDICES B and C for the Social Alienation (Sc 1a) and Somatic complaints (Hy 4) subscales respectively).

II Symptom Description Measures

1. Measure of Depression

In addition to the Depression scale of the MMPI, the Beck Depression Inventory (Beck et al., 1961) was administered to each subject to assess the overall quality and level of depressive feelings they were experiencing. This scale was included because it is a widely used and accepted measure of depression, and therefore allowed the results of this study to be compared with other related research. The Beck Depression Inventory consists of 21 items which are given in four statement groups and are completed in a "forced-choice" format, such that the individual selects the statement which is most applicable to themselves. This measure was developed utilizing clinically derived items which were validated against external criteria (psychiatric interviews). The split-half reliability (Spearman-Brown) was found to be 0.93. (See APPENDIX D).

2. General Fears Inventory

To assess the level and types of phobias experienced by the subjects, they were administered the Fear Survey Schedule III (Wolpe and Lang, 1964). This measure consists of a list of 72 areas of potential phobia, and the individual is asked to rate the degree to which the selected object/location is fear provoking. This questionnaire was also chosen because it is a widely used general fear instrument, and thus will allow comparison between the current study and other research related to agoraphobia (See APPENDIX E).

3. Brief Symptoms Inventory

In addition to the above instruments, the subjects were also asked to complete the Brief Symptom Inventory (BSI) (Derogatis, 1975). This questionnaire consists of 53 items which the subject is asked to rate on a four-level scale according to the degree to which the identified symptom applied to themsleves. The inventory is divided into three global indices (global indices (global severity index, positive symptom distress, and positive symptom total) and nine primary dimensions (somatization, obsessions-compulsions, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, and paranoid ideation). This measure is appropriate as it contains several subscales (particularly somatization, interpersonal sensitivity, depression and phobic anxiety) which should be theoretically relevant to agoraphobic patients. (See APPENDIX F).

III Cognitive Measures

1. Measure of Locus of Control

The subjects were also asked to complete a questionnaire designed to assess the degree to which they perceived their locus of control as primarily internal versus external. This is of theoretical interest as it has been postulated that agoraphobics tend to perceive themselves as helpless victims of their anxiety, and thus would likely experience a tendency toward an external locus. To assess this trait, the subjects were administered the Internal-External Locus of Control Scale (Rotter,

1966). This measure consists of 29 items presented in pairs of statements, one consistent with an internal locus, and the other consistent with an external locus. The subject is required to select the statement which most applied to himself. Test-retest reliabilities were found to range from 0.49-0.83, and measures of internal consistency, using a Kuder-Richardson technique, were found to have coeffients varying between 0.70 to 0.76. In addition, some evidence is presented by Rotter (1966) demonstrating the measure to have constant validity. (See APPENDIX G).

2. Agoraphobic Cognitions Questionnaire

The subjects also completed the Agoraphobic Cognitions Questionnaire (Chambless et al., 1984). This measure is designed to assess the cognitions experienced by agoraphobics related to the potentially negative consequences of anxiety. The subject is asked to rate the degree to which they experience 15 distressing cognitions according to a five-level scale. This measure was found to have a high test-retest reliability coefficient (0.86) for the overall scale, as well as for the individual items (Kendall tau b correlation ranged .49 to .87, with a reported median of .74), was found to demonstrate construct and content validity and was internally consistent (alpha = 0.80). This instrument was included because it has been argued that agoraphobia involves a characteristic set of maladaptive cognitions related to fears of the experience of anxiety (e.g., fear of fear). (See APPENDIX H).

3. Body Sensations Questionnaire

The subjects were also asked to complete the Body Sensations Questionnaire (Chambless et al., 1974). This is a 17 item scale which requires the individual to rate the degree to which they are frightened by the experience of selected bodily sensations experienced during autonomic arousal according to a five-level intensity. It has a high internal consistency (Cronbach alpha = .87), a test-retest reliability of .67, with demonstrated construct and content validity (See APPENDIX I).

IV. Coping Measures

1. A Modified Version of the Ways of Coping Checklist

The subjects also completed a modified version of the Ways of Coping Checklist (Folkman et al., 1986). This is a 50 item Likert-format questionnaire which is modified through factor analytic techniques from an earlier 68 item checklist, and currently is divided into 8 subscales (confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful-problem solving, and positive reappraisal) which are thought to reflect different means of coping with stressors. There is some evidence for acceptable reliability and construct validity for the checklist (Vitaliano et al., 1985), and measures of internal consistency (alpha coefficients) have ranged from .61 to .79, with relatively low intercorrelations between the subscales (ranging from .01 to .39). The subscales can be summated to obtain global scores of the tendency toward problem-solving versus emotion-focused overall patterns of coping. (See APPENDIX J).

Statistical Analyses

A series of analyses of variance tests were completed to determine whether hypothesized differences could be detected between the clinical and contrast samples on the dependent measures. As well, a multivariate analysis of variance (MANOVA) was calculated to determine whether an overall difference between the groups could be found when the set of dependent measures was considered in its entirety.

A preliminary factor analysis was also conducted to determine whether underlying factors could be found which were consistent with the presence of an agoraphobia syndrome.

As a subsidiary analysis a series of analysis of variance tests, and a MANOVA were also conducted to determine whether significant sex differences could be detected on the dependent measures within the clinical group.

CHAPTER III

Results

The purpose of the study is to investigate underlying factors associated with the Agoraphobia syndrome. This chapter reports the results of the data collection and statistical analyses used to test the hypothesis that group differences would be found between the Agoraphobic and non-clinical samples, and to examine whether sex differences exist in the symptomotology associated with Agoraphobia.

Scores on the Dependent Measures and Differences Between Groups

The mean scores and standard deviations for each of the dependent variables for the clinical and contrast groups are given in Table 3. A multivariate analysis of variance was conducted to determine whether overall significant differences could be detected between the groups. This analysis was necessary as the procedure of computing multiple ANOVAs may inflate the chance of finding significant group differences erroneously (e.g., through an inflated risk of a Type I error). The MANOVA was conducted using the entire set of dependent measures with the scores reflecting scale totals removed (e.g., BSI total). A significant overall difference between the two groups was found (F (24, 78) = 28.9; $p < .0001$).

The dependent measures were classified into four general categories (general personality, symptom description, cognitive processes, and coping questionnaires). To further examine group differences separate MANOVAs were calculated for each category of the questionnaires. A series of one-way ANOVAs were conducted to locate the differences on the

individual measures. The results of the ANOVA tests are reported in Table 3.

I. General Personality Measure

1. MMPI

A MANOVA found significant overall group differences (F (13, 86) = 23.89; $p < .0001$). On the ANOVAs, significant differences were found on the Hypochondriasis (HS.), Depression (D.), Hysteria (Hy.), Psychopathic Deviate (Pd.), Schizophrenia (Sc.), and Social Introversion (Si.) clinical scales of the MMPI. Although significant differences were found on all but one (Mania; Ma.) of the clinical scales, an examination of the F ratios and variance estimates from the ANOVA procedure suggests that the largest group differences were found on the Depression, Hysteria, Psychasthenia, and Social Introversion scales. The clinical subjects were found to score significantly higher on these scales, and thus they are likely more depressed, anxious, and socially introverted relative to the contrast subjects. As well, the agoraphobics may tend to react to stressors in a maladaptive manner with a greater intensity and frequency in comparison to the nonclinical subjects, based upon the pattern of elevated MMPI scores. The original MMPI profiles for the patient and contrast groups are given in Figure 1. Significant differences were also found on the Social Alienation and Somatic Concerns subscales of the MMPI. The clinical subjects scored higher on both measures, and thus are likely to feel more socially alienated from others, and to report a higher number of physical symptoms relative to the subjects in the contrast group.

Table 3

Mean scores and standard deviations for the clinical and contrast groups; tests for between-group differences:

Measure	Clinical Group		Contrast Group		F
	Mean	S.D.	Mean	S.D.	
General Personality Measure: MMPI					
Hs.	70.2	13.1	51.5	8.1	71.8**
D.	77.7	13.2	50.5	9.1	150.5**
H.	72.2	10.9	52.0	6.7	122.32**
Pd.	65.8	14.5	55.1	10.3	17.44**
Mf.	49.2	10.6	55.7	10.9	11.79**
Pa.	65.2	11.8	53.0	8.7	34.39**
Pt.	75.9	10.7	50.3	10.2	156.60**
Sc.	71.3	14.3	53.9	9.2	52.18**
Ma.	53.6	10.9	53.9	10.8	3.24
Si.	67.7	11.2	45.7	5.8	150.3 **
L.	51.8	6.4	48.8	7.3	4.55
F.	62.1	11.3	54.0	8.0	16.93**
K.	51.5	8.5	50.6	5.9	0.43
SA.	6.2	3.9	3.6	2.3	17.26**
SO.	7.9	3.3	3.2	1.9	83.82**
Symptom Description Measures					
BECK	16.1	14.5	4.4	4.7	30.87**
FSSTOT	222.3	50.2	159.4	35.1	54.39**
FSSAG	41.9	10.9	22.1	5.7	148.42**
BSI-Total	78.7	31.4	26.9	23.1	87.78**
BSI-Dep	8.5	6.2	3.1	4.4	24.3 **
BSI-ISS	6.4	4.2	2.8	2.8	25.57**
BSI-Som	11.1	6.5	2.2	3.4	81.58**
BSI-PA	12.8	5.4	0.9	1.6	250.10**
Cognitive Processes Measures					
ACQ	36.0	7.9	17.7	7.8	135.77**
BSQ	41.4	12.6	21.4	12.2	61.82**
IE	11.2	4.3	9.0	3.8	7.62*

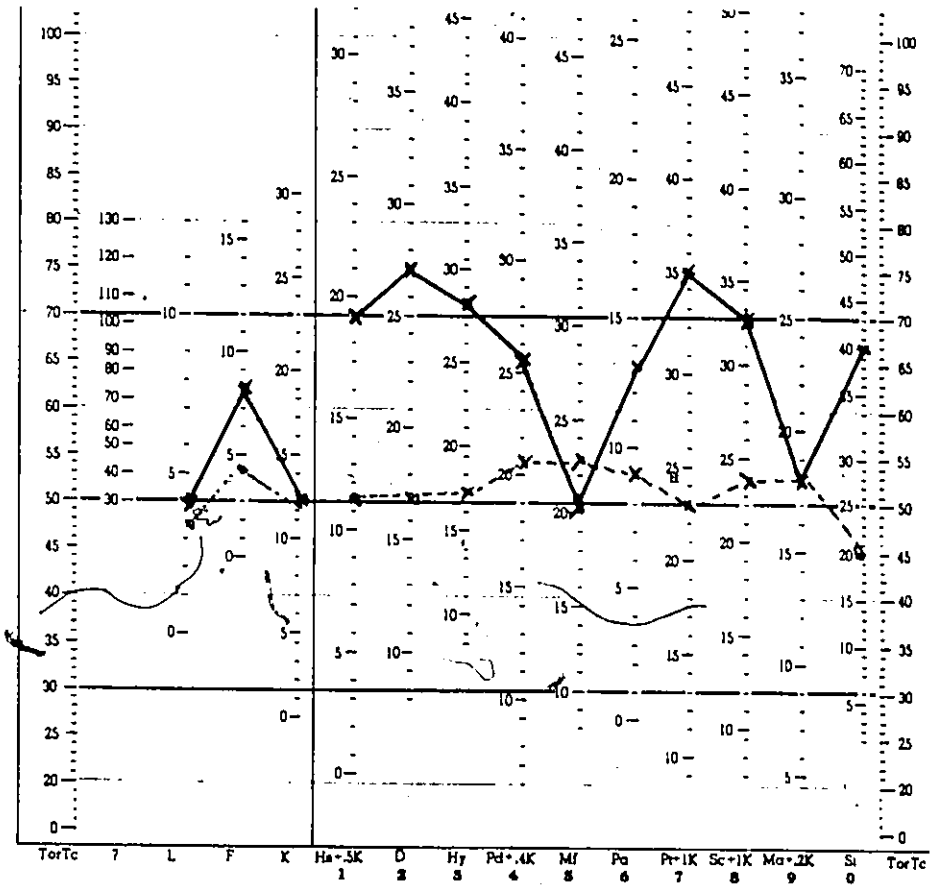
Coping Scales

CONFRONTATION	7.8	3.9	9.2	3.8	2.77
DISTANCING	5.3	2.4	4.8	4.0	0.47
SELFCON	8.9	2.4	9.7	3.9	1.09
SOCSUPP	4.3	1.8	9.2	4.3	39.58**
ACCRES	2.9	2.4	4.9	6.9	2.81
ESCAVO	5.3	2.4	5.5	4.5	0.07
PROBSOL	7.6	3.6	10.0	3.9	8.09*
POSRE	6.5	4.9	9.3	6.2	4.95
PROB	15.41	6.5	9.2	6.2	7.41
EMOT	28.9	9.9	34.3	16.5	2.90

** $P < .001$
* $P < .01$

Note: For all measures except the coping scales, n=50 for each group. For the coping measures, n=50 for the contrast group, and n=34 for the clinical group.

Figure 1: Group Profiles for T Scores



_____Clinical Group

- - - -Contrast Group

II. Symptom Description Measures

Significant overall group differences were found on the symptom description measures, (F (8, 91) = 29.24, $p < .001$). ANOVA results are reported as follows for each measure:

1. Beck Depression Inventory

Consistent with the significant difference found on the Depression Scale of the MMPI, significant differences were also detected between the clinical and contrast groups on the Beck Depression Inventory (F (1, 98) = 30.87, $p < .001$). This result indicates that the clinical subjects are more depressed than the contrast group subjects, and is consistent with an elevated depression score on the Brief Symptom Inventory (as reported below).

2. Fear Survey Schedule

On the Fear Survey Schedule, the agoraphobic sample was found to demonstrate higher overall fear scores (F (1, 98) = 54.39; $p < .001$) as well as higher scores on the agoraphobia factor (F (1, 98) = 148.42; $p < .001$) relative to the contrast group. Therefore, the clinical population was both more fearful in general, and also tended to endorse more fear-related items which were agoraphobic in nature (such as related to fears on enclosed spaces, or travel).

3. Brief Symptom Inventory

On the Brief Symptom Inventory, the clinical subjects scored higher

than the contrast subjects in the overall total symptoms reported, (F (1, 98) = 87.78; $p < .001$) and on the Depression, Interpersonal Sensitivity, Somatization, and Phobic Anxiety subscales. These findings suggest that relative to the contrast group, the agoraphobic patients are more depressed and sensitive to social rejection. They may attend to bodily sensations to a higher degree (~~or~~ experience them to a greater frequency), and report a heightened number of phobic anxiety symptoms (such as anxiety when away from home).

III. Cognitive Processes Measures

Significant overall group differences were found on the measures related to cognitive processing (F (3, 96) = 46.98, $p < .001$). ANOVA results are reported as follows for each measure:

1. Internal - External Locus of Control Scale

A significant difference was found on the Internal-External Locus of Control Scale (F (1, 98) = 7.62; $p < .01$). The patient sample was found to score higher than the contrast subjects, and thus the agoraphobic individuals may tend to be somewhat more likely to assign an external locus of control when determining the responsibility for daily events.

2. Agoraphobia Cognitions Questionnaire and Body Sensations Questionnaire

On the Agoraphobia Cognitions Questionnaire, the agoraphobic subjects scored significantly higher (F (1, 98) = 135.77; $p < .001$) than the contrast subjects. This finding suggests that the clinical patients

tended to experience a heightened number of cognitions during episodes of high anxiety related to fear of potentially deleterious effects of that arousal (e.g., "I'm having a heart attack", "I'll act foolish"). Similarly, the agoraphobic subjects scored significantly higher (F (1, 98) = 61.82; $p < .001$) on the Body Sensations Questionnaire, and thus relative to the contrast group are more likely to attend to the physical symptoms associated with anxiety, to rate them more intensely, and to be more concerned by them (such as by the experience of heart palpitations, or nausea).

IV Coping Measures

Significant overall group differences were found on the coping scales (F (8, 75) = 6.67 $p < .001$). ANOVA results are reported as follows for each subscale:

The agoraphobics were found to score lower than the contrast group on the social support (SOCSUPP), problem-solving (PROBSOL), and positive reappraisal(POSRE) coping scales, and on the problem-focused composite scale (PROB) (see Table 3). This suggests that the agoraphobics rely less heavily on utilizing social relationships to enable them to cope with stressors, are less likely to reframe (and hence change their cognitive attribution/set) during a stressor, and, as well, are less likely to generate problem-solving strategies in those situations.

As a general trend was noted suggesting the agoraphobics utilize fewer coping mechanisms in general (and thus in effect cope less), a total coping score was calculated as the sum of the individual coping

scales combined. A significant difference was found between groups, (F (1, 83) = 10.49, $p < .0017$), with a mean total coping score for the clinical sample of 48.67 (SD = 15.2) and 62.67 (SD = 21.9) for the contrast group. This finding supports the hypothesis that the agoraphobics utilize less overall coping in general, and thus in effect appear to fail to cope.

In addition, to further compare the coping styles of the clinical subjects with the contrast sample, the number of different coping styles (as reflected by the different coping scales) utilized by the agoraphobics was compared with the normal group. The clinical sample had a mean number of coping strategies employed (as measured by added the number of coping scales in which any item was endorsed) of 5.28, in comparison to a mean of 7.52 for the contrast group. An analysis of variance found a significant difference between groups (F (1, 83) = 17.40, $p < .0001$), suggesting that the agoraphobics also use fewer different types of coping strategies.

Interrelationships Between Dependent Measures

A series of correlations were calculated between the dependent measures to examine the pattern of relationships between them and to determine whether evidence could be found to demonstrate convergence between measures of theoretically related constructs. The overall correlation matrix for the entire data set (clinical and contrast groups

combined) is given in APPENDIX J. Correlations for the dependent measures for the clinical group and for the contrast group have not been included, although they are available from the author upon request. They were, however, examined and found to have similar patterns of intercorrelations between measures.

1. Measures of Depression

In examining the measures which theoretically are designed to assess depression, each of the three scales (the Depression scale of the MMPI, the Beck Depression Inventory, and the Depression subscale of the Brief Symptom Inventory) correlate with each other significantly, and thus demonstrate convergent validity for a Depression construct.

2. Measures of Somatic Concern

Similarly, the measures which theoretically should assess the presence of somatic concerns (the Hypochodriasis scale of the MMPI, the Somatic Concerns subscale of the MMPI, the Somatization subscale of the Brief Symptom Inventory, and the Body Sensations Questionnaire) correlate with each other significantly, and thus offer evidence of convergent validity for a somatic concerns construct.

3. Measures of Agoraphobic Fear/Anxiety

The measures which theoretically should assess phobic-anxiety symptoms (the agoraphobic factor on the Fear Survey Schedule, the Agoraphobic Cognitions Questionnaire, and the Phobic-Anxiety subscale

of the Brief Symptom Inventory) correlate with each other significantly, and thus demonstrate convergent validity for a phobic-anxiety symptoms factor. The correlations for each of these symptom constellations is given in Table 4.

Analyses of Covariance Results with the ACQ and BSQ as Covariates

An examination of the correlation matrix indicated that the Agoraphobic Cognitions Questionnaire (ACQ) and the Body Sensations Questionnaire (BSQ) were highly correlated with several of the dependent measures. This finding is of theoretical interest as these were specifically designed to detect agoraphobic patterns of beliefs and concerns related to the disorder. To determine the effect of removing the variability accounted for by these questionnaires, a series of analysis of covariance (ANCOVA) procedures were conducted with the ACQ and BSQ as covariates. This was intended to determine whether group differences could be found when the "agoraphobic-specific cognitive patterns" (as reflected by these measures) was removed. The results of these analyses are given in Table 5.

These results demonstrate that significant differences exist between the groups on several dependent measures when the variability due to the ACQ and BSQ is removed. In particular, on the MMPI, the Depression, Hysteria, Psychasthenia, and Social Introversion scales have the largest F ratios, and thus reflect the largest group differences. This finding may be indicative of the presence of underlying personality differences between the contrast and clinical subjects

Table 4

Correlations for the Depression, Somatic Concerns, and Phobic-anxiety Symptoms Measures

	Depression Measures (n=100)	
	Beck Dep I.	BSI-Dep
MMPI D	.58	.57
Beck Dep. I.		.61

	Somatic Concerns Measures (n=100)		
	SO	BSISOM	BSQ
MMPI HS	0.71	0.70	0.60
SO		0.74	0.58
BSISOM			0.61

	Phobic-anxiety Symptoms Measures (n=100)	
	BSIPA	ACQ
FSSAG	0.85	0.70
BSIPA		0.74

Note: $P < .001$ for all correlations

Table 5

LS Means and F Values for the ANCOVA with the ACQ and BSQ as covariates

Measure	Clinical Group LS Mean	Contrast Group LS Mean	F
General Personality Measure: MMPI			
HS	67.12	54.6	14.67**
D	78.51	49.63	64.95**
HY	70.62	53.60	38.17**
PD	62.94	57.95	1.64
Mf	50.73	54.11	1.03
PA	64.09	54.13	9.34*
PT	72.98	53.31	37.95**
SC	67.16	58.11	6.29
MA	48.40	59.08	11.41*
SI	65.98	47.43	44.10**
SA	5.43	4.42	1.13
SO	7.08	4.08	14.29*
Symptom Description Measures			
BECK	11.71	9.13	0.66
BSITOT	67.55	41.37	7.53*
BSIDEP	6.27	5.35	0.33
BSIISS	5.43	3.77	2.27
BSIPA	11.34	2.33	56.25**
BSISOM	8.64	4.66	6.98*
FSSTOT	207.49	174.19	6.43
FSSAG	38.28	25.70	24.14**
Cognitive Processes Measure			
IE	10.11	10.04	0.00

Coping Scales

CONFRON	5.61	10.71	17.12**
DIST	5.00	5.02	0.00
SELFCON	8.08	10.31	3.66
ACCRES	1.15	6.12	6.83*
ESCAVO	3.65	6.68	5.85*
PROBSOL	5.76	11.26	19.36**
POSRE	3.36	11.43	18.34**
PROB	11.36	21.97	28.67**
EMOT	21.24	39.56	15.62**

** $p < .001$
* $p < .01$

Note: For all measures except the coping scales, n=50 for each group. For the coping measures, n=50 for the contrast group and n=34 for the clinical group.

independent of the cognitive/attributional characteristics associated with agoraphobia, as the variability due to those characteristics should have been largely removed by the ANCOVA procedure.

Of additional interest in comparing the ANOVA and ANCOVA results is the finding that significant differences emerged through the ANCOVA on the confrontation (CONFRON), accepting responsibility (ACCRES), escape-avoidance (ESCAVO) and emotion-focused (EMOT) composite scales. These findings suggest that the ACQ and BSQ may have been acting as suppressor variables, and that through their removal underlying group differences could be found, as evident through a comparison of the respective least-squares means and standard group means.

Factor Analytic Results

To determine whether underlying dimensions associated with agoraphobia could be found, a principal components analysis with orthogonal rotations was performed on the correlation matrix of dependent measures. Based upon an examination of the resulting eigenvalues, a four factor solution which accounted for 73% of the total variability was selected. See Table 6 for the eigenvalues of the correlation matrix and Table 7 for the rotated factor pattern.

The first factor appears to represent a dimension of agoraphobic personality and symptomatic elements. The Hypochondriasis, Depression, Hysteria, Psychasthenia, and Social Introversion scales of the MMPI, in addition to the Fear Survey Schedule Total and subscales, the Somatic

Table 6

Eigenvalues of the ten largest factors for the factor analysis of all dependent measures

Factor Level	Eigenvalue	Proportion of variance explained	Cumulative Proportion of variance explained
1	13.445727	0.4337	0.4337
2	3.274543	0.1056	0.5394
3	1.876305	0.0605	0.5999
4	1.470581	0.0474	0.6473
5	1.208382	0.0390	0.6863
6	1.109176	0.0358	0.7221
7	0.999261	0.0322	0.7543
8	0.856842	0.0276	0.7820
9	0.747946	0.0241	0.8061
10	0.657567	0.0212	0.8273

Table 7

Rotated factor pattern for the dependent measures

Measure	Factor 1	Factor 2	Factor 3	Factor 4
		General Personality Measure: MMPI		
HS	740	416	028	-127
D	741	343	238	114
HY	731	357	-188	-147
PD	375	735	-058	-047
MF	-474	441	-306	119
PA	576	567	-010	049
PT	804	354	-080	-120
SC	590	710	060	-053
MA	130	559	326	082
SI	845	161	135	-070
SA	459	602	094	-006
SO	799	223	-054	096
		Symptom Description Measures		
BECK	615	514	061	019
FSSTOT	816	102	068	103
FSSAG	902	-015	-055	-031
BSITOT	814	193	-002	064
BSIDEP	696	352	039	140
BSIIS	740	232	089	086
BSISOM	839	143	035	022
BSIPA	900	080	187	043
		Cognitive processes Measures		
ACQ	828	115	053	067
BSQ	731	148	176	012
IE	458	317	009	208

Coping Scales

CONFRON	-073	321	716	026
DIST	088	089	062	755
SELFCON	-011	-049	154	859
SOCSUPP	-474	-042	642	-175
ACCRES	048	-132	597	030
ESCAVO	193	078	630	232
PROBSOL	-175	-063	461	529
POSRE	-070	094	595	351

concerns subscale of the MMPI, the Agoraphobia Cognitions Questionnaire, and the Body Sensations Questionnaire have the heaviest loadings on this factor.

The second factor may be interpreted as reflecting a social acting-out/impaired relationship dimension. The psychopathic deviate and Schizophrenia scales of the MMPI, and the social alienation subscales had heavy loadings on this factor, and moderate loadings were found for the Mania and Paranoia scales.

The third factor is primarily comprised of the Confrontation, Social Support, Accepting Responsibility, Escape-Avoidance, and Positive Reframing coping scales. This factor resembles previous factor analytic findings reported in the literature, and may reflect a dimension representing emotion-based coping strategies. The fourth factor has the heaviest loadings with the Distancing, Self-control, and Problem-solving coping scales, and may reflect an underlying dimension consistent with a tendency toward problem-focused coping with limited affective involvement (e.g., as seen in the Distancing and Self-control scales). This two-factor division of the coping scales is consistent with earlier factor anaytic studies (Folkman & Lazarus, 1980).

Subsidiary Analysis: Sex Differences Within the Agoraphobic Sample

A series of multivariate analyses of variance were conducted to determine whether sex differences could be found between subjects in the agoraphobic sample. Although a MANOVA could not be calculated

using each of the dependent measures together due to insufficient error degrees of freedom, three multivariate analyses of variance were conducted with groups of measures to partially examine overall sex difference. A MANOVA conducted with the MPI scales failed to find a significant effect due to sex (F (15,34) - 1.67, n.s.). Similarly, significant differences were also found on the non-MMPI, noncoping measures (MANOVA F(11,38) - 1.92, n.s. and between the men and women on the coping scales (MANOVA F (12,37) = 1.53, n.s.).

Although overall effects were not found, a series of ANOVAs were conducted to examine differences on individual measures based on apriori reasons from a review of the literature. Means and ANOVA results are in Table 8. Significant differences were found such that men scored higher than the women on the Depression scale of the MMPI, and lower on the BSI Somatization and Phobic Anxiety scales, on the Fear Survey Schedule agoraphobia scale, and on the Somatic concerns subscale of the MMPI. Significant differences were not found on any of the remaining measures. These results indicate that some differences in the symptom presentation exists between men and women, although taking the data set in it's entirety the overall differences appear minor.

Summary of the Results

In summary, there appear to be significant differences between the agoraphobic and normal contrast subjects on a variety of measures assessing symptomatic (as would be expected), personality and cognitive variables. This finding suggests that there may be certain specific

Table 8

Means and ANOVA results for sex differences in the clinical sample

Mesure	Mean Female	Mean Male	F
General Personality Measure:MMPI			
HS	70.4	69.2	0.07
D	75.8	85.3	4.47*
HY	72.5	70.9	0.18
PD	65.3	67.4	0.16
Mf	45.6	63.5	42.13**
PA	64.8	67.1	0.31
PT	74.7	81.2	3.11
SC	70.6	74.3	0.53
MA	54.6	49.3	0.53
SI	68.3	65.5	0.48
L	51.9	51.4	0.05
F	62.1	62.2	0.00
K	50.9	53.8	0.90
SA	6.36	5.8	0.16
SO	8.6	5.7	6.80*
Symptom Desciption Measures			
BECK	17.2	13.4	0.54
FSSTOT	288.8	196.0	3.60
FSSAG	44.2	32.6	10.87*
BSITOT	82.0	65.6	2.24
BSIDEP	8.8	7.1	0.61
BSIIS	6.5	6.1	0.07
BSISOM	12.4	5.8	9.60*
BSIPA	13.8	8.9	7131
Cognitive Processes Measures			
ACQ	36.8	32.8	2.10
BSQ	41.4	39.9	0.12
IE	11.6	9.5	1.92

Coping Scales			
CONFRON	6.0	9.0	0.17
DIST	3.8	7.5	2.07
SELFCON	8.2	8.0	0.00
SOCSUPP	4.2	4.5	0.01
ACCRES	1.4	2.5	0.40
ESCAVO	4.2	3.0	0.49
PROBSOL	8.2	4.5	1.03
POSRE	5.8	3.5	0.52
PROB	15.6	14.2	0.20
EMOT	29.6	25.4	0.75
TOTCOP	49.4	44.4	0.45
COPNUM	5.7	3.7	2.37

* $p < .01$

Note: n=10 for the male agoraphobics, and n=40 for the female agoraphobics.

characteristics associated with the experience of agoraphobia. In addition, differences were found in both the pattern of coping responses to stressors, and in the amount and range of coping types used by the clinical subjects. Factor analytic results indicate that certain dependent measures group together suggesting a possible set of personality and symptomatic variables associated with the phobic-anxiety disorder. Consistent with earlier studies, there appear to be two major dimensions of coping patterns, one of which focuses on emotion-based responding, whereas the other reflects a problem-solving (and affective distancing) style. The current study failed to find substantial overall effects in the personality or symptomotology between the sexes within the clinical sample.

CHAPTER IV.

DISCUSSION

The purpose of the current study is twofold (1) to investigate the presence of underlying personality correlates associated with the Agoraphobia syndrome to attempt to identify factors which may act to predispose an individual to have a heightened susceptibility to reacting to stressors in a phobic-anxiety fashion, and (2) to combine measures of personality, cognitive attribution, symptom expression, and coping to develop a unified model of the possible developmental factors in agoraphobia.

Findings related to the Experimental Hypothesis

Related to the experimental hypothesis predicting differences on several measures, an initial examination of the group comparisons between the agoraphobic sample and contrast subjects suggests that significant differenences exist on the dependent measures indicative of characteristic personality, cognitive, symptomatic, and coping styles associated with agoraphobia. Examining the overall profile currently demonstrated by the agoraphobic subjects indicates significant elevations relative to the normal contrast sample on measures specifically designed and/or theoretically constructed for the disorder (e.g., the Fear Survey Schedule Agoraphobia Scale, the Agoraphobia Cognitions Questionnaire, Bodily Sensations Questionnaire, and the phobic-anxiety subscale of the Brief Symptom Inventory) suggesting that the clinical group can be distinguished from the normals. Therefore, the original interviews used to identify the agoraphobics were likely correct in their diagnoses.

Summary of Factors Associated with Agoraphobia

Based upon the findings of the current study, it can be suggested that several interrelated factors may act to predispose an individual to react to stressors and develop an agoraphobic disorder. As reported in the review of the literature, it is postulated that a conditioning model may explain several aspects of the early development of agoraphobia, with cognitive factors acting to maintain it's presence. Of interest currently, however, is the identification of the components of an individual's personality or historical experience which create a set of conditions conducive to developing an agoraphobic pattern of difficulties.

The present study suggests that multiple factors may be involved. Personality measures suggest that agoraphobics may tend to withdraw from stressors, perceiving themselves as unable to function in situations associated with anxiety. Concomitant with behavioural withdrawal appears to be the willingness to form highly dependent relationships, a heightened sensitivity to physical symptoms in combination with an active internal cognitive system to monitor levels of arousal as cues of anxiety.

Cognitive factors appear to play a central role in the disorder, as individuals who fear physical illness, and who have developed beliefs related to highly negative consequences of those illness may be more likely to become threatened and hence withdraw from perceived anxiety. Initial experiences of anxiety, which might be ignored by others, may therefore be focused upon, the possibility of further occurrences highly feared, and thus attempts may be made at avoidance.

The style of limited coping is consistent with passive withdrawal

and a subsequent increased reliance upon others for assistance. These factors are also likely related to a tendency toward believing oneself generally powerless to effect change over one's own life or over the environment, and thus may contribute to a pattern of diminished self-efficacy and helplessness resulting in the potential for significant depression. Of additional interest is that these presenting aspects of agoraphobia (personality facilitating withdrawal, feelings of helplessness, intense anxiety associated with the mere thought of targetted locations) likely act to prevent the individual from attempting to resolve his/her difficulties, and thus the factors involved in predisposing an individual may also act to maintain the disorder.

These distinct categories of functioning (personality, symptom expression, cognitive processing styles, and coping preferences) can be integrated into an overall model, identifying factors which may increase the likelihood an individual could develop an agoraphobic disorder. For example, personality patterns consistent with a tendency toward forming dependent relationships and passive withdrawal likely are related to diminished levels and ranges of coping. In addition, a heightened fear of the consequences of anxiety may further reinforce passivity and limited coping behaviour.

The current study cannot truly identify predisposing factors as might be possible in experimental design (e.g., the random selection of subjects from the population, assignment of them to a patient or non-patient group, and the creation of the conditions for the development of agoraphobia), which is the case in most studies employing a clinical

sample. However, the postulate that limited coping resources, the formation of dependent relationships, established patterns of withdrawal from stressors, a heighten focus upon physical symptoms, and susceptibility to depression are primary factors predisposing an individual to agoraphobia has some support in the clinical observation of patients. In addition, their self-reports suggest a developmental history consistent with these factors. For example, agoraphobic patients have reported that as adults they continue to recognize implicit and explicit messages from their parents suggesting withdrawal and retreat from confrontation (in relation to a wide range of stressors) as opposed to a more active approach to problem resolution. Similarly, agoraphobics have reported feelings of a pervasive nonassertiveness prior to treatment, and to an excessive reliance upon others to assist in relatively minor daily tasks (such as shopping), with statements related to their unhappiness with such dependency in contradiction to their apparent behavioural and attitudinal set perpetuating their difficulties.

In the next sections, the findings pertaining to each category of functioning are discussed in greater detail.

1. Personality Factors Associated with Agoraphobia

The personality profile associated with the Agoraphobic sample is marked by elevations and highly significant group differences on the Depression, Hysteria, Psychasthenia, and Social Introversion scales of the MMPI. This configuration (D/Pt "2-7") has been reported to be associated with anxious personality disorders (avoidant types) (Vincent

et al., 1984), with increased reports of experiences of somatization, self-blame, withdrawal, feelings of inferiority and inadequacy, and with the presentation of physical complaints without the use of this presentation as a means of anxiety reduction (Dahlstrom & Welsh, 1960). These individuals are reported to experience increased anxiety as a function of these somatic complaints, as might be predicted in a conditioning model of agoraphobia.

Greene (1980) describes the 2-7 profile as being associated with individuals "... who can become obsessively preoccupied with their personal deficiencies despite frequent evidence of their personal achievements" (p. 126), and are likely to interact passively through forming dependent relationships. "They are well adept at inspiring others to take care of them and protect them from their cruel fate" (Greene, 1980, p. 127). These descriptions are consistent with clinical observations made of agoraphobic patients. In addition, elevations of both the Depression and Hysteria scales ("2-3") are reported to be associated with a tendency to become accustomed to chronic difficulties and to function in an impaired manner for a considerable duration. The elevations on these scales suggests that the agoraphobics are experiencing considerable depression and anxiety, are extremely limited in their social interactions and function in a restricted manner (as reflected in the elevated Social Introversion scores), overreact to stressors, and present several somatic complaints (as reflected in the elevated Hysteria and Hypochrondriasis scale scores).

Applied to an agoraphobic population, these findings suggest that they possess a personality style conducive to passive withdrawal, tolerance of multiple physical symptoms and feelings of diminished self-worth, and to the formation of dependent relationships. This finding is consistent with a review of the literature in which it has been hypothesized that agoraphobics form maladaptive styles of interpersonal attachment with a depressive component to their symptom presentation (Breier, Charney & Heninger, 1984; De Moor, 1985; Fisher & Wilson, 1985; Foa et al., 1984; Hallam & Hafner, 1978; Hand & Lamontagne, 1976; Shafar, 1976; Tearnan et al., 1984; Vandereycken, 1983). Similarly, Buglass et al.'s (1977) report that agoraphobics fear illness in an exaggerated fashion is consistent with Dahlstrom and Welsh (1960) who state that elevations on the Hypochondriasis, Depression and Psychasthenia scales of the MMPI are associated with the presentation of diffuse physical complaints arising in frequent medical consultations. The current study, therefore, supports earlier findings suggestive of the presence of maladaptive personality configurations associated with agoraphobia.

2. Symptom Expression Measures

Although the MMPI contains several scales typically thought of as related to symptom expression (e.g., HS, D, PT) the current study also included several other measures related to depression, somatization, anxiety, phobias, and interpersonal functioning which appear related to the presenting difficulties associated with agoraphobia.

As a group of dependent measures related to the expression of physical complaints, the HS scale of the MMPI, Brief Symptom Inventory Somatization scale, and somatic concerns subscale of the MMPI demonstrated significant positive correlations, and highly elevated scores relative to the contrast group. Taken together, these findings illustrate the high degree to which agoraphobics focus on physical symptoms (as is also reflected through the BSQ), and suggests a possible sensitivity to these concerns as an important underlying factor in agoraphobia. Similarly, the pattern of positive intercorrelations and elevations on measures of depression (Depression scale of the MMPI, Beck Depression Inventory, Brief Symptom Inventory Depression scale) suggests this construct is also involved as playing a central role. Considered together, the presence of somatic concerns and depression may interact to lessen the energy and motivation an individual has to cope with stressors (as related to Bandura's self-efficacy and Seligman's learned helplessness theories) and may foster the perception that there is little he/she can do to effect change, thus strengthening a passive mode of interaction and dealing with the disorder.

The Fear Survey Schedule total score, the agoraphobia scale score, and the Brief Symptom Inventory Phobic-anxiety score demonstrated marked elevations and intercorrelations. The highly significant difference noted between the clinical and contrast group, particularly on the agoraphobia scale, suggests that the agoraphobics are exhibiting a pattern of fears consistent with items which are related to being in

situations in which immediate departure is impeded, and in which anxiety has previously occurred. This finding lends support to a conditioning model of agoraphobia in which phobic-anxiety is associated with specific target locations, and is heightened by the absence of an available escape route. (This is postulated to be anxiety producing as escape would act to decrease arousal and thus provides a paradigm involving negative reinforcement for retreat and punishment for being forced to remain).

3. Cognitive Symptom/ Locus of Control Measures

The Agoraphobia Cognitions Questionnaire, and Body Sensations Questionnaire are considered measures of an individual's tendency toward attributing meaning or experiencing concern related to the presence of physical symptoms, and subsequent worries about the effects of anxiety. The significant elevations on these scales for the clinical sample suggests they may harbour an elevated number of distressing cognitions related to the potentially negative consequences of anxiety, and an increased degree of worry over the experience of somatic symptoms, relative to the contrast group. The agoraphobics, therefore, report these experiences as more intense, aversive, and frightening, although objective measures suggest they do not necessarily experience anxiety or physical symptoms more intensely than nonagoraphobics (at least during initial stages of the development of the disorder).

Exhibiting a tendency toward an external locus of control, agoraphobics may attribute external factors as being responsible for

events occurring to them (such as the experience of anxiety) and as having a high degree of control over them. It may thus be speculated that the high degree of sensitivity toward physical symptoms, believing a serious risk of injury is associated with anxiety, a tendency toward passive withdrawal from stressors, and a failure to perceive themselves as potent in effecting change may interact so as to allow agoraphobics to fail to attempt to cope adaptively, and hence result in the development of a self-perception of helplessness, facilitating the formation of a dependency upon others.

These study findings are consistent with current literature suggesting that anticipatory anxiety may play a significant role in agoraphobia. De Moor (1985) suggests that the worry over the possible consequences of a panic attack may result in an individual avoiding locations where it is feared an attack may recur. This concept of anticipatory anxiety is supported by the elevated scores on the Agoraphobia Cognitions Questionnaire which contains several items focused on fears such as not being able to control one's self, going crazy, having a stroke, screaming, becoming paralyzed by fear, choking to death, and looking foolish. The tendency toward perceiving control as external, in combination with the fears of anxiety as reflected by the ACQ and BSQ lends support to Bandura's self-efficacy theory (1977) in that agoraphobics may fail to attempt to change their circumstances, and generate and utilize fewer coping mechanisms (as was found in the diminished levels of coping in the clinical population) and also supports

Seligman and Johnson's (1973) postulate that the perception of helplessness is associated with significant levels of depression. Reiss et al's (1986) discussion of "anxiety sensitivity" (referred to as the belief system which perpetuates the fear of the effects of anxiety) in which it is speculated that the role of cognitive mediation and interpretation of symptoms is an important component of agoraphobia is further supported by the current study's finding of significantly elevated scores on the Internal-External Locus of Control Scale, ACQ, and BSQ, in combination with a personality structure conductive to withdrawal and a coping pattern characterized by few attempts to deal with stressors.

4. Coping Measures

The clinical group was found to exhibit significantly less coping, as measured by the total amount of reported coping attempts and number of different types of strategies utilized, relative to the contrast group. This finding is of theoretical interest as it suggests that a possible component to the disorder is the absence of activity on the part of the individual to lessen their difficulties despite intense reported levels of discomfort as evidenced by their pattern of responses on the dependent measures. This is consistent, however, with other aspects of agoraphobia as discussed above. For example, it might be expected that diminished coping might arise in individuals who interact with stressors in a passive dependent manner, exhibit diminished perceptions of self-efficacy, harbour feelings of helplessness and

depression, and who focus on their physical symptoms and fears regarding its potential effects.

On the coping scales, the agoraphobics scored lower than the contrast group on the social support, problem-solving, and positive reappraisal measures. This finding suggests that the clinical subjects are less able to utilize their relationships with others to master stressful situations, and is of interest given the tendency found in agoraphobic populations toward forming strong dependencies. This suggests that although agoraphobics form intense attachments, they may be unable to utilize them adaptively (e.g., the relationships discourage mastery of the anxiety or feared location due to possible dependency needs on the part of the patient or spouse) whereas nonagoraphobics may find significant others a support toward self-mastery. The lowered scores on the problem-solving and positive reappraisal scales suggests that the agoraphobics may fail to generate as many active (e.g., problem-solving) coping strategies during stressful situations, and may tend not to modify their perceptions (reframe) of their presenting difficulties into terms which might allow them to be adequately managed (e.g., by perceiving the situation as less intense than it could be). This is consistent with other reported findings suggesting that agoraphobics focus tremendous attention on their differences with little constructive resolution (as evidenced by the significant energy given to the meanings of symptoms, fears of anxiety, with little beneficial change resulting in a long-term chronic course).

Although the coping scales typically have been found to demonstrate

few correlations with measures of personality, some associations have been noted between styles of coping (problem-solving, seeking social support, wishful thinking) and reports of depression and anxiety. The current study found a series of significant negative correlations between seeking social support and measures of depression (e.g., the Depression scale of the MMPI, Depression scale of the Brief Symptom Inventory, and the Beck Depression Inventory) as well as negative correlations with anxiety-related measures (e.g., the Psychasthenia scale of the MMPI, the Phobic-Anxiety scale of the Beief Symptom Inventory, and the Agoraphobia Cognitions Questionnaire). This finding suggests that significant depression and anxiety appear to be consistent with the tendency to fail to utilize social relationships as aids to coping (although these relationships may play a role in functions other than helping with adaptive problem resolution). In addition, problem-solving as a coping mechanism was found to be negatively correlated with the Depression and Psychasthenia scales of the MMPI, and with the Phobic-Anxiety scale of the Brief Symptom Inventory. Although significant correlations were not found with other anxiety/depression measures, the current study suggests a trend towards a diminished level of problem-solving associated with these difficulties. These results are also consistent with Folkman and Lazarus (1980) who reported a negative correlation between depression, anxiety, and problem-solving, although it contradicts their finding of a positive association between anxiety and seeking social support.

These findings are also related to Folkman and Lazarus' (1980) discussion of coping as involving multiple steps: (1) an initial appraisal whether the situation poses a threat (agoraphobics would likely perceive threats in targetted locations involving anticipated anxiety); (2) a determination whether anything could be done to alleviate the situation, and (3) the activation of a selected coping response. Agoraphobics likely decide there is little they can do to effectively deal with the situation, given the patterns of personality and cognitive features they exhibit (and thus may withdraw as outlined above).

The coping scales were administered after treatment had been initiated for the clinical group. As these individuals had received some intervention and nevertheless demonstrated differences relative to the contrast group, these differences may have been even more pronounced had the scales been administered prior to treatment.

Sex Differences Between Agoraphobic Patients

The current study is consistent with previous research (Chambless and Mason, 1986; Mavissakalian, 1985) indicating that there are few reliable sex differences in the expression of the disorder, or in the personality correlates associated with the population. Of interest, however, were the findings of increased levels of depression seen in male agoraphobics found on the Depression scale of the MMPI, but not on the Brief Symptom Inventory Depression scale, nor on the Beck Depression Inventory. This lack of convergence fails to suggest a strong effect due to sex, which is contrary to Chambless and Mason (1986)*

who reported elevated levels of depression in male agoraphobics. Their finding of an increased level of anxiety in women relative to men was supported by the current study in which women were significantly higher on the Brief Symptom Inventory Phobic-Anxiety scale.

Factorial Dimensions of Agoraphobia

The current study found a four-factor structure consistent with the presence of underlying dimensions representing a personality/ cognitive processes aspect, an impaired interpersonal relationships factor, and two smaller factors related primarily to approaches to coping.

The first factor, with it's heaviest loadings with the Hypochondriasis, Depression, Hysteria, Psychasthenia, and Social Introversion scales of the MMPI, the Fear Survey Schedule scales, Brief Symptom Inventory scales, the ACQ and BSQ reflects a primary psychological, cognitive, and phobic-symptoms factor, and it's presence may be considered as lending support to theorists postulating that agoraphobia should be considered as a syndrome, as opposed to a subset of general fears. It is comprised of a set of interrelated personality constructs (depression, and a pattern of passive dependency), a cognitive processing style, and a constellation of phobic-anxiety difficulties which are theoretically consistent (as outlined above).

The second factor is comprised primarily of the Psychopathic Deviate and Schizophrenia scales of the MMPI, and the Social Alienation subscale of the MMPI (which itself is a subset of the Schizophrenia

scale). Moderate loadings were also found with the Mania and Paranoia scales. This factor appears to reflect a dimension involving impaired social relations, and may be associated with interpersonal difficulties as reported above. In particular, clinical observation with agoraphobic patients suggest considerable social impairments at multiple levels, such as between the individual and significant others (spouse, children, friends, parents), as well as in their general capacity to utilize relationships adaptively. In this sense, the grouping of the Paranoia, Mania, and Psychopathic Deviate scales suggests the potential for acting-out within a social context (such as through the exhibition of passive aggressive or manipulative behaviour) as opposed to the more typical antisocial activity usually associated with that cluster of MMPI scales.

The third factor was comprised primarily of the confrontation, social support, accepting responsibility, positive reframing and escape-avoidance scales, with a moderate loading by the problem-solving measure. This pattern is suggestive of a dimension reflecting a social/affective oriented group of coping strategies. The fourth factor is primarily comprised of the distancing and self-controlling measures, with a moderate loading by the problem-solving measure, and is suggestive of a coping dimension characterized by a response to stressors marked by a strong problem-solving emphasis with a degree of emotional control (e.g., distancing, self-control). This finding is consistent with earlier studies finding a two-factor structure with the Ways of Coping Checklist.

General Summary

The purpose of the current study is to identify personality correlates associated with agoraphobia which may act to predispose an individual to be susceptible to the disorder, and to attempt to integrate various aspects of the presenting difficulties to present an unified model of the personality, cognitive, coping, and phobic-anxiety symptom often found in agoraphobic populations.

The current study found several measures upon which the agoraphobic sample differed from a contrast group of normal subjects. In particular, an identifiable pattern of personality variables was associated with the clinical group focusing on maladaptive patterns of interpersonal relationships, significant depression, and a style of responding to stressors. Consistent with this personality structure were cognitive aspects related to a heightened degree of monitoring of internal sensations, as well as the tendency to perceive themselves as helpless and as a victim of external circumstance. Symptom groups were found to focus in three areas: significantly elevated levels of depression, a constellation of phobic-anxiety symptoms, and a heightened concern related to somatic sensations (through anxiety as autonomic nervous system arousal) with a heightened fear of the possible consequences of those experiences.

A factor analysis suggested four underlying dimensions reflecting personality/cognitive/phobic-anxiety aspects of the disorder, significant impairments in interpersonal functioning, and two patterns of coping with stressors related to social/affective versus problem-

solving emphases. In summary, it can be speculated that the experience of agoraphobia appears to have identifiable underlying factors both predisposing an individual to this disorder, and acting to maintain the presence of these difficulties in that the factors allowing someone to be susceptible appear intimately related to making the disorder difficult to change without external assistance.

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Appendix A

DSM III CRITERIA FOR AGORAPHOBIA

WITH PANIC ATTACKS

DSM III Criteria for Agoraphobia

with Panic Attacks

A. The individual has marked fear of and thus avoids being alone or in public places from which escape might be difficult or help not available in case of sudden incapacitation, e.g., crowds, tunnels, bridges, public transportation.

B. There is increasing constriction of normal activities until the fears or avoidance behavior dominate the individual's life.

C. Not due to a major depressive episode, Obsessive Compulsive Disorder, Paranoid Personality Disorder, or Schizophrenia.

Appendix B

THE SOCIAL ALIENATION SUBSCALE (SC 1A) FROM THE SCHIZOPHRENIA CLINICAL SCALE

The Social Alienation subscale

T 1. I am sure I get a raw deal from life

T 2. At times I have very much wanted to leave home

T 3. No one seems to understand me

T 4. If people had not had it in for me I would have been much more successful

T 5. I prefer to pass by school friends, or people I know but have not seen for a long time, unless they speak to me first

T 6. I believe I am being plotted against

T 7. I feel I that I have often been punished without cause

T 8. My people treat me more like a child than a grown-up

T 9. I dream frequently about things that are best kept to myself

T 10. Once in a while I feel hate toward members of my family whom I usually love

T 11. Even when I am with people I feel lonely much of the time

T 12. I dislike having people about me

T 13. I have never been in love with anyone

T 14. The things that some of my family have done have frightened me

T 15. I have been afraid of things or people that I knew could not hurt me

T 16. People say insulting and vulgar things about me

F 17. I loved my father

F 18. I loved my mother

F 19. I enjoy children

F 20. I get all the sympathy I should

F 21. I seem to make friends about as quickly as others do

Appendix C

SOMATIC COMPLAINTS (HY 4) SUBSCALE OF THE HYSTERIA CLINICAL SCALE

Somatic complaints subscale

T 1. There seems to be a lump in my throat much of the time

T 2. I am troubled by attacks of nausea and vomiting

T 3. Much of the time my head seems to hurt all over

T 4. Once a week or oftener I feel suddenly hot all over, without apparent cause

T 5. Often I feel as if there were a tight band about my head

T 6. I frequently notice my hand shakes when I try to do something

F 7. My hands and feet are usually warm enough

F 8. I am almost never bothered by pains over my heart or in my chest

F 9. I have little or no trouble with my muscles twitching of jumping

F 10. I have never had a fainting spell

F 11. I seldom or never have dizzy spells

F 12. I can read a long time without tiring my eyes

F 13. I have very few headaches

F 14. I have had no difficulty in keeping my balance in walking

F 15. I hardly ever notice my heart pounding and I am seldom short of breath

F 16. I have few or no pains

F 17. My eyesight is as good as it has been for years

Appendix D

THE BECK DEPRESSION INVENTORY

The Beck Depression Inventory

Select the statement from each item set which most applies to yourself

1. a. I do not feel sad
   b. I feel blue or sad
   c. I am blue or sad all the time and I can't snap out of it
   d. I am so sad or unhappy that I can't stand it

2. a. I am not particularly pessimistic or discouraged about the future
   b. I feel discouraged about the future
   c. I feel I have nothing to look forward to
   d. I feel that the future is hopeless and that things cannot improve

3. a. I do not feel like a failure
   b. I feel I have failed more than the average person
   c. I feel that I have accomplished very little that is worthwhile or that means anything
   d. I feel that I am a complete failure as a person

4. a. I am not particularly dissatisfied
   b. I don't enjoy things the way I used to
   c. I don't get satisfaction out of anything anymore
   d. I am dissatisfied with everything

5. a. I don't feel particularly guilty

   b. I feel bad or unworthy a good part of the time

   c. I feel quite guilty

   d. I feel as though I am very bad or worthless

6. a. I don't feel I am being punished

   b. I have a feeling that something bad may happen to me

   c. I feel I am being punished or will be punished

   d. I want to be punished

7. a. I don't feel disappointed in myself

   b. I am disappointed in myself

   c. I am disgusted with myself

   d. I hate myself

8. a. I don't feel that I am worse than anybody else

   b. I am very critical of myself for my weaknesses or mistakes

   c. I blame myself for everything that goes wrong

   d. I feel I have many bad faults

9. a. I don't have any thoughts of harming myself

   b. I have thoughts of harming myself but I would not carry them out

   c. I feel I would be better off dead

   d. I would kill myself if I could

10 a. I don't cry any more than usual

b. I cry more now than I used to

c. I cry all the time now. I can't stop

d. I used to be able to cry but now I can't cry at all even though I want to

11 a. I am no more irritated now than I ever am

b. I get annoyed or irritated more easily than I used to

c. I feel irritated all the time

d. I don't get irritated at all at the things that used to irritate me

12 a. I have not lost interest in other people

b. I am less interested in other people than I used to be

c. I have lost most of my interest in other people and have little feeling for them

d. I have lost all my interest in other people and don't care about them at all

13 a. I make decisions about as well as ever

b. I am less sure of myself now and try to put off making decisons

c. I can't make decisions anymore without help

d. I can't make any decisions at all any more

14 a. I don't feel I look any worse than I used to

b. I am worried that I am looking old or unattractive

c. I feel that there are permanent changes in my appearance and they make me look unattractive

d. I feel that I am ugly or repulsive looking

15 a. I can work about as well as before

b. I don't work as well as I used to

c. I have to push myself very hard to do anything

d. I can't do any work at all

16 a. I can sleep as well as usual

b. I wake up more tired in the morning than I used to

c. I wake up 1-2 hours earlier trhan usual and find it hard to get back to sleep

d. I wake up early every day and can't get more than 5 hours sleep

17 a. I don't get any more tired than usual

b. I get tired more easily than I used to

c. I get tired from doing anything

d. I get too tired to do anything

18 a. My appetite is no worse than usual

b. My appetite is not as good as it used to be

c. My appetite is much worse now

d. I have no appetite at all any more

19 a. I haven't lost much weight, if any, lately

b. I have lost more than 5 pounds

c. I have lost more than 10 pounds

d. I have lost more than 15 pounds

20 a. I am no more concerned about my health than usual

b. I am concerned about aches or pains or upset stomach or constipation or other unpleasant feelings im ny body

c. I am so concerned with how I feel or what I feel that it's hard to think of much else

d. I am completely absorbed in what I feel

21 a. I have not noticed any recent change in my interest in sex

b. I am less interested in sex than I used to be

c. I am much less interested in sex now

d. I have lost interest in sex completely

Appendix E

INTERNAL VS. EXTERNAL LOCUS OF CONTROL SCALE

Internal vs. External Locus of Control Scale

Choose the statement of each item pair which most reflects your belief

1. a. Children get into trouble because their parents punish them too much

   b. The trouble with most children nowadays is that their parents are too easy with them

2. *a. Many of the bad things in people's lives are partly due to bad luck

   b. People's misfortunes result from the mistakes they make

3. a. One of the major reasons why we have wars is because people don't take enough interest in politics

   *b. There will always be wars, no matter how hard people try to prevent them

4. a. In the long run people get the respect they deserve in this world.

   *b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries

5. a. The idea that teachers are unfair to students is nonsense

*b. Most students don't realize the extent to which their grades are influenced by accidental happenings

6. *a. Without the right breaks one cannot become an effective leader

b. Capable people who fail to become leaders have not taken advantage of their opportunities

7. *a. No matter how hard you try some people just don't like you

b. People who can't get others to like them don't understand how to get along with others

8. a. Heredity plays the major role in determining one's personality

b. It is one's experiences in life which determine what one is like

9. *a. I have often found that what is going to happen will happen

b. Trusting to fate has never has never turned out as well for me as making a decision to take a definite course of action

10 a. In the case of the well prepared student there is rarely it ever such a thing as an unfair test

*b. Many times exam questions tend to be so unrelated to course work that studying is really useless

11 a. Becoming a success is a matter of hard work, luck has little or nothing to do with it

*b. Getting a good job depends mainly on being in the right place at the right time

12 a. The average citizen can have an influence in government decisons

*b. This world is run by the few people in power, and there is not much the little guy can do about it

13 a. When I make plans, I am almost certain that I can make them work

*b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow

14. a. There are certain people who are just no good

b. There is some good in everybody

15. a. In my case getting what I want has little or nothing to do with luck

*b. Many time we might just as well decide what to do by flipping a coin

16 *a. Who gets to be the boss often depends on who was lucky enough to be in the right place first

b. Getting people to do the right thing depends on ability, luck has little or nothing to do with it

17 *a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control

b. By taking an active part in political and social affairs the people can control world events

18 *a. Most people don't realize the extent to which their lives are controlled by accidental happenings

b. There is really no such thing as "luck"

19 a. One should always be willing to admit mistakes

b. It is usually best to cover up one's mistakes

20 *a. It is hard to know whether or not a person really likes you

b. How many friends you have depends on how nice a personn you are

21 *a. In the long run the bad things that happen to us are balanced by the good ones

b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three

22 a. With enough effort we can wipe out political corruption

*b. It is difficult for people to have much control over the things politicians do in office

23 *a. Sometimes I can't understand how teachers arrive at the grades they give

b. There is a direct connection between how hard I study and the grades I get

24 a. A good leader expects people to decide for themselves what they sould do

b. A good leader makes it clear to everybody what their jobs are

25 *a. Many times I feel that I have little influence over the things that happen to me

b. It is impossible for me to believe that chance or luck plays an important role in my life

26 a. People are lonely because they don't try to be friendly

*b. There's not much use in trying too hard to please people, if they like you, they like you

27 a. There is too much emphasis on athletics in high school

b. Team sports are an excellent way to build character

28 a. What happens to me is my own doing

*b. Sometimes I feel that I don't have enough control over the direction my life is taking

29 *a. Most of the time I can't understand why politicians behave the way they do

b. In the long run the people are responsible for bad government on a national as well as on a local level

Appendix F

FEAR SURVEY SCHEDULE III

Fear Survey Schedule III

Rate the following items according to the degree to which you are disturbed by them, using a 5 level scale:

	Not at all	A little	A fair amount	Much	Very Much
1. Noise of vacuum cleaners					
2. Open wounds					
3. Being alone					
4. Being in a stange place					
5. Loud voices					
6. Dead people					
7. Speaking in public					
8. Crossing streets					
9. People who seem insane					
10. Falling					
11. Automobiles					
12. Being teased					
13. Dentists					
14. Thunder					
15. Sirens					
16. Failure					

17. Entering a room where other people are already seated
18. High places on land
19. People with deformities
20. Worms
21. Imaginary creatures
22. Receiving injections
23. Strangers
24. Bats
25. Journeys a. train
    b. bus
    c. car
26. Feeling angry
27. People in authority
28. Flying insects
29. Seeing other people injected
30. Sudden noises
31. Dull weather
32. Crowds
33. Large open spaces
34. Cats
35. One person bullying another
36. Tough looking people
37. Birds

38. Sight of deep water
39. Being watched working
40. Dead animals
41. Weapons
42. Dirt
43. Crawling insects
44. Sight of fighting
45. Ugly people
46. Fire
47. Sick people
48. Dogs
49. Being criticized
50. Strange shapes
51. Being in an elevator
52. Witnessing surgical operatins
53. Angry people
54. Mice
55. Blood a. Human
    b. Animal
56. Parting from friends
57. Enclosed places
58. Prospect of a surgical operation
59. Feeling rejected by others
60. Airplanes
61. Medical odors

62. Feeling disapproved of

63. Harmless snakes

64. Cemeteries

65. Being ignored

66. Darkness

67. Premature heart beats (missing a beat)

68. (a) Nude men

    (b) Nude women

69. Lightning

70. Doctors

71. Making mistakes

72. Looking foolish

Appendix G

BRIEF SYMPTOM INVENTORY

BRIEF SYMPTOM INVENTORY

Rate the degree to which the items listed below have given you any discomfort over the past two weeks, by listing the severity rating number beside each item:

Severity Rating	Descriptor
0	Not at all
1	A little bit
2	Moderately
3	Quite a bit
4	Extremely

1. Nervousness or shakiness inside
2. Faintness of dizziness
3. The idea that someone else can control your thoughts
4. Feeling others are to blame for most of your thoughts
5. Trouble remembering things
6. Feeling easily annoyed or iritated
7. Pains in heart or chest
8. Feeling afraid in open spaces
9. Thoughts of ending your life
10. Feeling that most people cannot be trusted
11. Poor apetite

12. Suddenly scared for no reason
13. Temper outbursts that you could not control
14. Feeling lonely even when you are with people
15. Feeling blocked in getting things done
16. Feeling lonely
17. Feeling blue
18. Feeling no interest in things
19. Feeling fearful
20. Your feelings being easily hurt
21. Feeling that people asre unfriendly or dislike you
22. Feeling inferior to others
23. Nausea or upset stomach
24. Feeling that you are being watched or being talked about by others
25. Trouble falling asleep
26. Having to check and doublecheck what you do
27. Difficulty making decisions
28. Feeling afraid to travel on buses, subways, or trains
29. Trouble getting your breath
30. Hot or cold spells
31. Having to avoid certain things, places, or activities because they frighten you
32. Your mind going blank
33. Numbness or tingling in parts of your body
34. The idea that you should be punished for your sins

35. Feeling hopeless about the future
36. Trouble concentrating
37. Feeling weak in parts of your body
38. Feeling tense or keyed up
39. Thoughts of death or dying
40. Having urges to beat, injure, or harm someone
41. Having urges to break or smash things
42. Feeling very self-conscious with others
43. Feeling uneasy in crowds
44. Never feeling close ot another person
45. Spells of terror or panic
46. Getting into frequent arguments
47. Feeling nervous when you are left alone
48. Others not giving you proper credit for your achievements
49. Feeling so restless you couldn't sit still
50. Feelings of worthlessness
51. Feeling that people will take advantage of you if you let them
52. Feelings of guilt
53. The idea that something is wrong with your mind

Appendix H

THE AGORAPHOBIC COGNITIONS QUESTIONNAIRE

THE AGORAPHOBIC COGNITIONS QUESTIONNAIRE

Below are some thoughts or ideas that may pass through your mind when you are nervous or frightened.

1. Indicate how often each thought occurs when you are nervous. Rate from 1-5 using the scale below.

    1. THOUGHT NEVER OCCURS
    2. THOUGHT RARELY OCCURS
    3. THOUGHT OCCURS DURING HALF OF THE TIMES I AM NERVOUS
    4. THOUGHT USUALLY OCCURS
    5. THOUGHT ALWAYS OCCURS WHEN I AM NERVOUS

2. Circle the three ideas which occur most often when you are nervous.

_____ I am going to throw up

_____ I am going to pass out

_____ I must have a brain tumor

_____ I will have a heart attack

_____ I will choke to death

_____ I am going to act foolish

_____ I am going blind

_____ I will not be able to control myself

_____ I will lose control of my bladder or bowels

_____ I will hurt someone

_____ I am going to have a stroke

_____ I am going crazy

_____ I am going to scream

_____ I am going to babble or talk funny

_____ I will be paralyzed by fear

_____ Other ideas not listed

Appendix I

THE BODY SENSATIONS QUESTIONNAIRE

THE BODY SENSATIONS QUESTIONNAIRE

Below is a list of specific body sensations that may occur when you are nervous or in a fearful situation. Please mark down how afraid you are of these feelings. Use a five point scale from not worried to extremely frightened. Only rate sensations you have personally experienced.

1. Not frightened or worried by this sensation
2. Somewhat worried by this sensation
3. Moderately frightened by this sensation
4. Very frightened by this sensation
5. Extremely frightened by this sensation

_____ 1. Heart palpitations

_____ 2. Pressure or a heavy feeling in chest

_____ 3. Numbness in legs or arms

_____ 4. Tingling in the fingertips

_____ 5. Numbness in another part of your body

_____ 6. Feeling short of breath

_____ 7. Dizziness

_____ 8. Blurred or distorted vision

_____ 9. Nausea

_____ 10. Having "butterflies" in your stomach

_____ 11. Feeling a knot in your stomach

_____ 12. Having a lump in your throat

_____ 13. Wobbly or rubber legs

_____14. Sweating

_____15. A dry throat

_____16. Feeling disoriented or confused

_____17. Feeling disconnected from your body: only partly present

_____18. Other _____

Appendix J

CORRELATIONS BETWEEN THE DEPENDENT MEASURES

FOR THE ENTIRE SAMPLE

Correlations between the dependent measures for the entire sample

	D	HY	PD	MF	PA	PT
HS	.7394	.8617	.5441	- .2025	.5927	.7334
D		.7740	.4903	- .1206	.6285	.8474
HY			.5441	- 2009	.6119	.7607
PD				- .0766	.5884	.6115
MF					- .1468	- .2122
PA						.6337

	SC	MA	SI	L	F
HS	.7150	.2209	.6066	.1867	.4948
D	.4603	.0400	.7910	.2328	.4693
HY	.7040	.12675	.6125	.2412	.4185
PD	.6878	.3628	.4294	-.0287	.7096
MF	- .1157	- .0385	- .2803	.0112	- .1143
PA	.7670	.2622	.5369	.0672	.6503
PT	.8053	.1883	.7978	.0270	.5846
SC		.4003	.6417	- .0177	.7360
MA			.0425	- .1004	.4134
SI				.0719	.5061
L					- .1443

	HS	D	HY	PD	MF	PA
K	- .0249	- .0515	.1016	- .1718	- .0355	- .0681
BECK	.6612	.5880	.5646	.5718	- .1205	.6299
BSIT	.6421	.6077	.5965	4162	- .3223	.5064
BSIDEP	.5451	.5684	.5227	.4804	- .2542	.5346
BSIIS	.4492	.5968	.3977	.3869	- .1993	.5378
BSISOM	.7030	.5412	.6187	.3357	- .3409	.4129
BSIPA	.6637	.6572	.7003	.4261	.3721	.5321
SA	.4515	.4553	.4094	.5794	- .0588	.5799
SO	.7084	.6265	.7125	.4694	- .3378	.5789
ACQ	.5816	.5556	.6050	.3883	- .2733	.4272
BSQ	.6017	.4865	.6147	.3992	- .3325	.4103
IE	.3420	.3226	.2657	.2736	- .1653	4242
FSSTOT	.5733	.6062	.5757	.4124	- .2887	.4748

	PT	SC	MA	SI	L	F
K	- .0704	- .1604	- .3111	- .3076	.3590	- .3868
BECK	.5778	.6651	.3404	.6121	.0559	.6612
BSIT	.6595	.5714	.2502	.6824	.0016	.4515
BSIDEP	.6115	.5849	0.3314	.5967	0.0290	.5133
BSIIS	.5818	5198	.2107	.6598	.0575	.4582
BSISOM	.5946	.5151	.2657	.5885	.1217	.4106
BSIPA	.7331	.5923	.1486	.7258	.1431	.4444
SA	.5256	.7028	.2482	.5412	- .2077	.6437
SO	.6287	.5845	.2018	.6242	.1784	.4418
ACQ	.6740	.5803	.2257	.6615	.0505	.5229
BSQ	.6093	.5519	.2316	.5251	.1844	.4171
IE	.3327	.3708	.2636	.3727	.0595	.3473
FSSTOT	.6110	.4785	.0966	.6551	.0441	.4042

	HS	D	HY	PD	MF	PA
FSSAG	.6562	.5762	.6401	.3366	- .3780	.4298
CONFRON	.0573	- .1147	- 0543	.2036	- .0095	.0673
DIST	.0306	.0692	.0738	.1047	0642	.1357
SELFCON	.0945	- .1366	- .1619	.0087	- .0068	.0007
SOCSUPP	- .3491	- .4228	- .4209	- .2987	.0201	- .2820
ACCRES	- .0139	- .0786	- .0976	- 0549	- .1366	.0244
ESCAVO	.1293	.0213	- .0297	.1480	- .1720	.1413
PROBSOL	- .2175	- .3274	- .2721	- 2201	- .0354	- .0894
POSRE	- .0088	- .1570	- .1027	- .1124	- .0144	.0508
PROB	- .0965	- .2652	- .1959	- .0108	- .0270	- .0136
EMOT	.0099	- .1047	- .1080	- .0017	- .0903	.0807

	PT	SC	MA	SI	L	F
FSSAG	.6747	.4922	.1334	.6650	.1725	.3452
CONFRON	- .0529	.1905	.2305	- .0763	- .1978	.2855
DIST	.0911	.1206	.1006	.0147	.0276	.1574
SELFCON	- .1476	- .1010	.0430	- .0536	.1889	.0781
SOCSUPP	- .4239	- .2709	.0023	- .4195	- .3102	- .0767
ACCRES	- .0268	- .0244	.0236	- .0374	- .0215	.0175
ESCAVO	.2193	.1719	.3348	.0728	- .1631	.1916
PROBSOL	- .3000	- .0925	- .0005	- .2502	.0142	.0081
POSRE	- .0678	.0485	.3661	- .1743	- .0822	.0717
PROB	- .2119	.0580	.1371	- .1959	- .1094	.1751
EMOT	.0058	.0603	.2807	- .0759	- .0340	.1419

	K	BECK	BSIT	BSIDEP	BSIIS	BSISOM
CONFRON	- .2446	.2004	- .0346	.0433	.0510	.0301
DIST	- .0107	.0845	.1318	.0865	.1396	.0729
SELFCON	- .1225	0226	0171	.1023	.0262	- .0185
SOCSUPP	- 1240	- 2745	3640	- .2949	- .2829	- .3714
ACCRES	- .1443	.0537	- .0031	.0179	1203	- .0208
EXCAVO	- .2244	.0914	.1863	.1401	.2644	.1778
PROBSOL	- .1262	- 0790	- .1679	- .0133	- .0853	- .1366
POSRE	- .1355	.0740	- .0142	.0263	- 0009	- .0215
PROB	- 2218	.0720	- .1216	.0178	- 0209	- .0641
EMOT	- .2014	.1004	.0769	.0988	.1551	.0425

	BSIPA	SA	SO	ACQ	BS	IE
BECK	.5728	4722	.5744	.5742	.4717	.3878
BSIT	.7389	.4633	.5836	.5866	.5821	.4667
BSIDEP	.6162	.5461	.5768	.5279	.4599	.5200
BSIIS	.6103	.5059	5484	.4819	.3813	4013
BSISOM	.8064	.4125	.7447	6689	6090	.4474
BSIPA		.4584	.7147	.7397	.6085	.4383
SA			5419	.4610	.3052	.3893
SO				.6326	.5757	.4398
ACQ					.7089	.3267
BSQ						.2827

	K	BECK	BSIT	BSIDEP	BSIIS	BSISOM
BECK			.5719	.6062	.5737	.6276
BSIT				.7510	.7036	.7190
BSIDEP					.7396	.6315
BSIIS						.5782

	BSIPA	SA	SO	ACQ	BS	IE
CONFRON	- .1564	.2630	- .0131	.0862	.1800	.0834
DIST	.1153	- .0379	.1433	0844	.1503	.0759
SELFCON	- .0239	- 0020	.0477	.0270	.0052	.1027
SOCSUPP	- .5416	- .1870	- .4517	- .4600	- 2934	- .2072
ACCRES	- .0929	.0019	- .0529	- .0050	.0012	- .0921
ESCAVO	.0597	.1749	.2110	.1521	.2344	.1241
PROBSOL	- .2340	.0139	- .1304	- .0224	- .0249	0589
POSRE	- .1426	- .0722	- 0892	.0411	.0640	.0009
PROB	- .2339	.1652	- .0862	.0379	.0923	.0851
EMOT	- .0571	.0074	.0432	.0810	.1249	.0390

	CONFRON	DIST	SELFCON	SOCSUPP	ACCRES
FSSAG	- .0892	.0700	- .0772	- .4505	0.0151
CONFRON		.1463	.1447	.4220	.3907

	ESCAVO	PROBSOL	POSRE	PROB	EMOT
FSSAG	.1043	- .1923	- .0674	- .1688	.0040
CONFRON	.2898	.3948	.3054	0.8337	.4211

	SELFCON	SOCSUPP	ACCRES	ESCAVO
DIST	.5371	- .0203	.1081	.2512
SELFCON		.0471	.2360	.3085
SOCSUPP			.2573	.2399
ACCRES				.3114

	PROBSOL	POSRE	PROB	EMOT
DIST	.2448	.2702	.2344	.5809
SELFCON	.4530	.2825	.3586	.6490
SOCSUPP	.2770	.3360	4182	.2845
ACCRES	.2032	.1386	.3552	.6071
ESCAVO	.1506	.4540	.2634	.7001
PROBSOL		.4402	.8365	.4625
POSRE			.4467	.7124
PROB				.5291

Note: $p < .01$ for correlations between measures (other than coping scales). When $r > .254$; between measures including a coping scale when $r > .283$.

Appendix K

ETIOLOGICAL, PHYSIOLOGICAL, AND TREATMENT COMPONENTS OF AGORAPHOBIA

Etiological, Physiological, and Treatment Components of Agoraphobia

The focus of the current study centers on factors which may have acted to increase the likelihood an individual may react to stressors in an agoraphobic manner. However, etiological aspects related to conditioning/learning models, treatment of the disorder, and physiological correlates have been reviewed and are thus reported as an appendix to provide additional background information.

Etiological Aspects of Agoraphobia

Although considerable uncertainty remains related to the existence of physiological, personality, and contextual predispositional factors of agoraphobia, there is emerging a general consensus among researchers that classical and operant learning paradigms likely play a role in the early development of the disorder. Psychodynamically-oriented theoreticians have also focused on the contributory roles of unresolved developmental conflicts (chiefly Oedipal) (Deutsch, 1929), loss and bereavement (Evans & Liggett, 1971), pregenital fixations (Rhead, 1969), and narcissistic injury (Stamm, 1972); however, agoraphobia is most frequently described in terms of the role of classical conditioning in forming phobic-anxiety associations between specific locations and fear responses, with operant conditioning playing a possible factor in the maintenance of avoidant behaviour. Avoidance is seen as continuing in that approach to a feared object/location results in an elevated level of anxiety; withdrawal lowers the anxiety level (and thus avoidance is negatively reinforced as in an escape learning paradigm).

Such a two-stage conceptualization of phobic-anxiety avoidance behaviour is generally considered as a derivation of Mowrer's (1960) Two-Factor Theory. In this model, agoraphobia would be seen as involving multiple stages:

(i) the experience of high anxiety or panic (UCR) becomes associated with the location in which it occurs, such that the individual, via classical conditioning, forms a CS-CR connection. At this stage the conditioned stimuli (CS) are the specific locations in which anxiety has occurred (such as a shopping mall). An initial panic attack has been thought to be caused by a wide range of potential factors (as reviewed below) which could include background stress, a physiological abnormality, or as arising from an anxiety-provoking misattribution of a physical problem (e.g., stomach aches or chest pains misinterpreted as signs of a heart attack, headaches as a possible brain tumor).

Ost & Hugdahl (1983) report that triggering events which could cause conditioning experiences were found in 81% of their agoraphobic population.

(ii) Out of fear of a recurrence of the anxiety attack, the individual tends to avoid the location in which it occurred. In addition, an anticipatory anxiety pattern may develop in which heightened autonomic nervous system arousal may occur in proximity to this location, or to similar locations. In this manner, stimulus generalization may play a contributing role

in increasing the number of locations which have the power to elicit anxiety (and hence new CS-CR associations are formed).

(iii) At a later stage a complete phobic-avoidance pattern develops in which the agoraphobic (a) approaches, or thinks about approaching feared locations, (b) experiences conditioned anxiety (as a fear of the consequence of an anxiety attack), (c) withdraws from the location, or cancels plans involving contact with the situation, (d) experiences lessened anxiety (and thus is negatively reinforced for withdrawal, punished for thoughts of approach). Fear is seen as having a motivating quality, and is elicited by the presence of "danger" signals which act to warn that the anxiety-provoking situation is impending (From Rachman, 1976).

Although the Two-Factor theory, as outlined above, is consistent with the experience agoraphobics report clinically, numerous theoretical and practical issues emerge which have been used to discount its role in the development and maintenance of agoraphobia. Rachman (1976), and Rachman and Hodgson (1974) reviewed phobic response patterns and described three "systems" of fear: physiological, behavioural, and subjective/cognitive, and found that in situations with moderate to low arousal the three response channels often failed to demonstrate synchrony. Such a finding is not accounted for by the Two-Stage theory, although Hodgson and Rachman (1974) note that high levels of motivation can allow an individual to overcome behavioural avoidance despite considerable ANS arousal and subjective experience of fear (and

thus the association between the three channels is complex and multi-determined). As well, these findings of desynchrony typically occur only at low to moderate arousal levels, whereas the panic experienced by most agoraphobics typically involves intense ANS activity. Seligman and Johnson (1973) also argue against the Two-Factor theory by reporting instances of the presentation of the CS (e.g., the individual approaches and remains in the feared location) without the onset of high anxiety (and hence the CS occurs without the CR). Theoretically, in learning models, such an experience, if repeated, constitutes an extinction paradigm in which the fear should gradually diminish. In agoraphobia, however, such experiences have not been found to typically result in a lessening of the anxiety-avoidant behaviour. Harlow (1954) also indirectly argues against a Two-Factor theory by postulating that fear cannot be a significant behavioural motivator as human energy is motivated toward positive rather than negative goals. As well, Ost and Hugdahl (1983) state that this theory fails to account for the unique and consistent pattern of phobic-avoidant locations associated with agoraphobia, and for the frequently reported finding that the avoidant behaviour occasionally begins after a single episode of panic (and thus doesn't have the opportunity for several repeated CS-CR pairings necessary to form a typical conditioned association).

Despite these contrasting viewpoints it is believed that the Two-Factor theory can be used to explain important aspects of the early development of agoraphobia, if the contribution of cognitive factors

is taken into consideration in the maintenance of the disorder. Goldstein and Chambless (1978) argue that after an anxiety attack the individual heightens their sensitivity to internal anxiety cues. Over time, these "cues", either as bodily sensations, or as cognitions become conditioned stimuli themselves in that they have the power to elicit further ANS arousal (as a CR). This allows the agoraphobic to generalize their anxiety rapidly as their phobic disorder becomes increasingly internal and "portable" (p. 55). In this manner, the CS-CR association can continue without continued exposure to the actual feared locations, and thus this effect may explain the failure of the anxiety to extinguish without repeated exposure. In further defense of the Two-Factor theory, Mowrer (1960) argued that agoraphobics may develop a set of "safety" signals which are associated with nonanxiety (such as being at home, or with a significant other who could look after them in the event of an attack). Agoraphobia, therefore, may be partially maintained by threats of separation from those "safety" signals, and hence may involve the absence of safety as well as the presence of real or potential danger (e.g., threat of attack). For agoraphobics the occasional nonoccurence of anxiety in the feared location may also be seen as a partial reinforcement schedule (Malmo, 1957), (which is associated with slower rates of extinction), and these nonoccurences may also be dismissed by the individual as due to the presence of a safety signal. Such signals could be a significant other, or, as well, could be perceived through the presence of an extraneous factor (e.g., an antianxiety medication could be relied

upon to control the level of anxiety, and thus allow the individual to function in the situation without believing that the anxiety has truly disappeared, as the medication is only seen having the power to control it). In addition, nonoccurences of anxiety could be dismissed through cognitive rationalizations (e.g., I can function today because I can leave the uncrowded mall quickly, but I couldn't function on a crowded day). Similarly, Hallam (1978) stated that agoraphobic fears were associated with cues in specific locations (e.g., the crowd, noises) rather than the location itself. With respect to Ost and Hügdahl's (1983) criticisms (related to why the specific pattern of phobias emerge and can develop after a single CS-CR pairing), it is feasible that a common underlying factor is present which connects the specific phobic clusters. For example, the inability, or perception of an impediment to leaving an anxiety-provoking location quickly to return to a point of safety may connect the fears of travel, crowds, and line-ups etc... In addition, Garcia and Koelling (1966) reported instances in which CS-CR associations have been formed after relatively few pairing exposures provided that the individual is predisposed in some way to the formation of such an association. It is possible, therefore, that because of their early history, experience of psychosocial stressors, personality profile, or physiological abnormality (as outlined below) agoraphobics have an increased susceptibility to the formation of these associations, and thus make them readily.

Physiological Correlates

Due to the high incidence of physical symptoms associated with agoraphobia (as experienced during a panic attack), a variety of physiological correlates have been investigated; however, no direct causal associations have been established. De Moor (1985), for example, postulates that agoraphobics may have an overly active autonomic nervous system thus increasing their susceptibility to anxiety symptoms, and Foa et al., (1984) reviewed several physical difficulties which could cause anxiety-like symptoms (and thus could provide an initial experience of panic, to which a behavioural pattern of conditioning could develop). These physiological factors have been reported to include hypoglycemia, bad drug experiences, a recent hysterectomy (leading to endocrine changes), adrenal disorders, such as pheochromocytoma, (causing palpitations, tachycardia, chest pains, and nervousness), sodium lactate infusion abnormalities, or mitral valve prolapse syndrome (causing chest pain, tachycardia, faintness, difficulty in breathing, and fatigue). Mitral valve difficulties in particular are found in abnormally high incidence in agoraphobics (estimates range 44-50%) in comparison to a normal population (9%). While this physical abnormality (or other physiological difficulties) may not directly cause agoraphobia, its symptoms resemble anxiety (or a potential heart attack or cardiac problem) which may interact to cause a heightened level of fear of recurrence in individuals with a personality structure conducive to responding to stressors in an anxious/avoidant manner (with other factors such as nonassertiveness also playing a contributory role).

Treatment of Agoraphobia

Although not the major focus of this paper, a brief review of treatment research is warranted in that an examination of what constitutes therapeutic change may offer some insight into the etiology of agoraphobia.

In general, behavioural approaches appear to be the treatment form of choice (Popler, 1977). Drop-out rates, however, are reported to be high (e.g., 33%) for behaviourally-based programs, and although some authors (Liddell et al., 1986) argue that these patients should be considered as treatment failures, others suggest that lack of success may be due to the tendency of some individuals to organize their lives with the focus of avoiding aversive stimuli rather than obtaining positives, thus these "failures" are not due to a lack of treatment potency (Marzillier & White, 1978) (unless motivation for change is considered a component of therapy). Although considerable debate continues regarding the efficacy of various forms of behavioural intervention (e.g., in-vivo desensitization versus flooding versus imaginal desensitization) few consistent differences are found in outcome evaluation research to specify a best "behavioural-technique" of choice (James, Hampton, & Larsen, 1983).

Studies which matched personality characteristics or anxiety response styles with a particular form of treatment have also found few benefits of one intervention approach over another (Ost, Jerremalm, & Jansson, 1984). Although Michelson (1986) found better treatment gains for subjects who were matched for response styles and therapeutic

approach, this occurred only after a follow-up period subsequent to treatment termination, but not at the immediate completion of the program. Therefore, the effects of subject to treatment matching may be delayed, but beneficial.

In a review of treatment outcome research, Hafner and Ross (1983) concluded that long-term follow-up studies generally found therapeutic gains were maintained over time, although Jansson, Jerremalm & Ost (1984) argue for the need to incorporate a maintenance component into the active treatment program. Most treatment approaches appear to utilize an in-vivo component, which typically involves the patient practicing learned coping strategies (such as anxiety management through relaxation) in the actual locations in which they fear a panic attack may recur (Gray & McPherson, 1982; Mavissakalian, & Marchione, 1985). Few studies, however, have systematically compared medication versus behavioural treatment programs including a follow-up period (Gray & McPherson, 1982). The efficacy of an in-vivo component is apparent as it is incorporated under diverse treatment approaches. Silon (1984), for example, reports on an Adlerian group therapy program which focuses on the role of a social support system in encouraging its members to experience direct contact in their targetted feared locations.

Despite the apparent effectiveness of behavioural approaches, Hafner (1976) reported on a relatively high incidence of new symptoms developing after treatment. These emergent or remaining (but secondary) difficulties were found to reflect problems not directly addressed by

the therapy programs; instead, they were often suggestive of interpersonal turmoil (such as a conflict in the marital relationship). This finding, therefore, suggests that factors beyond a strict conditioning model of agoraphobia (such as characterologic or interpersonal dysfunction) may need to be taken into consideration in the etiology of the disorder.

While most researchers appear to advocate a behaviourally-based approach, their focus remains largely atheoretical (in that they tend to report therapeutically potent factors, with less consideration given to why these factors may have a positive effect). It can be postulated, however, that these treatment forms are focused on the lessening of anxiety experiences and on the cessation of the individual's avoidance behaviour through mastery experiences in the feared locations, which, in turn, act to change the cognitive attributional system of the individual. These effects in principle are consistent with a cognitive-behavioural model of agoraphobia in that treatment lessens the associations an individual has been specific cues and anxiety (breaks the CS-CR connections), and redirects the individual away from a focus on bodily sensations and fears, onto methods of anxiety management and heightened perceptions of self-efficacy.

VITA AUCTORIS

Garry W. Fisher was born in September, 1957 in Toronto, Ontario. He graduated with the Bachelor of Arts degree in 1982 from McGill University, and graduated with the Master of Arts degree in 1984 from the University of Windsor. He is married to Paula C. Battle, and has one son.