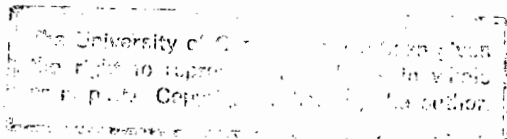


FEMALE ALCOHOLIC SUBTYPES: SOME CLINICAL
AND SOCIAL IMPLICATIONS

CECILIA KAY ROBINS

A thesis submitted to the Psychology Department, University of Cape Town, in fulfilment of the requirements for the degree of Master of Social Science.



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To my late and very dear friend Tim

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CONTENTS

	<u>Page</u>
ABSTRACT	
SUMMARY	i
<u>INTRODUCTION</u>	1
Definition of alcoholism	3
Moral and medical models of alcoholism	9
Disease concept of alcoholism	11
Society and alcohol	15
Women and alcohol	16
The literature dealing with the female alcoholic	21
The hypothesis of greater disturbance among women	25
An evaluation of measures of psychology in literature	27
The assumption of heterogeneity in research into alcoholism	36
Classification of female alcoholism	40
Rationale	47
Experimental hypotheses	50
<u>METHOD</u>	
Design	51
Subjects	52
Experimental procedure	56
Patterns of drinking	57
Psychological trends	58
<u>RESULTS</u>	73
The 16 Personality Factor Questionnaire	73
The Hostility Direction of Hostility Questionnaire	82
The Semantic Differential	92
The symptom Sign Inventory	99
The age of onset of excessive drinking	101
<u>DISCUSSION</u>	
Interpretation of psychological tests	103

	<u>Page</u>
Case Histories of a Gamma, a Delta and an Intermediate female alcoholic subject	110
Age of onset of excessive drinking as related to Gamma and Delta Alcoholism	117
Social norms and alcoholism among women	119
Conclusion	121
REFERENCES	123
Appendices	135
Appendix I	135
Appendix II	137
Appendix III	142
Appendix IV	146
Appendix V	149
Appendix VI	152
Appendix VII	161
Appendix VIII	162

ABSTRACT

Classifying subtypes is widely accepted in alcoholics research on males. Female alcoholics are largely investigated as a homogenous group. Furthermore, the literature indicates that female alcoholics are more psychologically disturbed than male alcoholics. The present study was set up to investigate these issues.

Twenty-nine white female alcoholic in-patients at a specialist hospital for alcoholics were tested on Cattell's 16 Personality Factor Questionnaire (16 PF), the Hostility Direction of Hostility Questionnaire (HDHQ) and the Semantic Differential (SD). Subjects were mostly from the lower-middle class with a mean age of 45.45. Subjects were assigned to one of three groups: Gamma, Delta and Intermediate as defined by Jellinek (1960) using Walton's criteria (1968) of Gamma/Delta alcoholism. It was hypothesized that there would be intergroup differences on all of the above measures. The Symptom Sign Inventory (SSI) was used to compare the degree of psychological disturbance on the above groups with an age-matched sample of male alcoholic in-patients on criteria of neuroticism, psychoticism and personal disturbance.

The female gamma group had a higher Total Hostility ($p < .01$) Extrapunitiveness ($p < .01$) and Intrapunitiveness score ($p < .05$) than the female delta group. However, the three female subgroups did not differ from each other on the personality factors (16 PF), nor on measures of the perceptions

of self (SD). In addition, no differences were found between the sexes in the manifestation of psychological disturbance, although a high proportion of subjects revealed psychological disturbance (SSI).

S U M M A R Y

1. INTRODUCTION

The concept of alcoholism has only recently been defined as a medical disorder (Jellinek, 1960; Galtt, 1973; Keller, 1972). Prior to that it was largely construed from a moralistic perspective (Hudolin, 1973).

In addition to the medical conceptualization of the disorder, there exists a social conceptualization of alcoholism. This largely embodies aspects of the social unacceptability of alcoholic behaviour which are manifested in bias and negative attitudes towards the alcoholic. Implicit in this is stigmatization.

With respect to the female alcoholic, excessive drinking has low social acceptance (Stafford, & Petaway, 1977; Gomberg, 1974; Litman, 1975). Stated differently there exists a double standard of attitudes towards male and female alcoholism. This is evidenced in the sanctions against women drinking excessively. These sanctions have had the effect of making the female alcoholic less visible both socially and in public treatment centres. In public treatment centres the proportion of female to male alcoholics is low (1:6) (Snyder, 1970), whereas in private practice the estimated proportion is approximately equal (Lindbeck, 1972).

It has been hypothesized that the low acceptance of alcoholism

has the effect of exposing the potential female alcoholic to a greater degree of psychological disturbance (Jellinek, 1960). This is used as the rationale for the widespread belief that women alcoholics are more psychologically disturbed than their male counterparts (Lisansky, 1957; Curlee, 1961; Rathod & Thompson, 1970). However, this observation must be evaluated in terms of (a) the biased samples from public treatment centres, and (b) the approach used in investigating female alcoholics.

With respect to the former, it has been suggested that only a more disturbed sample of female alcoholics present due to the social pressures which effectively keep women away from treatment (Lisansky, 1957). Thus this sample is not representative of the total population of female alcoholics.

With respect to the latter, there has been a tendency to investigate female alcoholics as a unitary and undifferentiated group. This may be said to have obscured possible subtypes that may exist in this population. A crucial implication of this approach lies in the investigation of psychological disturbance.

More recent trends in researching male alcoholics have attempted to classify male alcoholics into subtypes. One of the most useful approach in both research and clinical settings has been Jellinek's criteria of gamma and delta alcoholism (Jellinek, 1960). Various symptom clusters and alcohol related problems were differentiated between these

two groups (Walton, 1968; Stein, Niles and Ludwig, 1968; Abelsohn, 1973, 1978).

In research on the female alcoholic, no such systematic classification has yet been attempted. Some attempts have been carried out (Schuckit, Pitts, Reich, King and Winokur, 1969; Rimmer, Pitts, Reich and Winokur, 1971), using criteria of (a) prior diagnosis and (b) social class. However, these did not adequately cover the crucial criteria. The need to investigate subtypes of female alcoholics using more rigorous criteria has recently been emphasized (Beckman, 1976, 1977, Schuckit, 1976, Litman, 1976).

In the light of the foregoing, the aim of the present investigation is to apply Jellinek's criteria of gamma/delta alcoholism to a sample of female alcoholics in an attempt to elucidate subtypes. It is hypothesized that in accordance with findings on male research of this kind, gamma female alcoholics represent a more psychologically disturbed pattern of alcoholism from delta, and furthermore, that there is no difference in the degree of psychological disturbance between a sample of male and female alcoholics.

2. METHOD

2.1 Design

The data is analysed in two parts:

Part I: 29 female alcoholic subjects were subdivided into

three groups, gamma, delta and intermediate, using Walton's criteria of Jellinek's gamma/delta alcoholism. They were then compared on Cattell's 16 Personality Factor Questionnaire, the Hostility Direction of Hostility Questionnaire (Foulds) and the Semantic Differential (Osgood).

Part II: 29 age-matched male alcoholics were divided into the same three categories outlined above. They were then compared with the 29 female subgroups on the Symptom Sign Inventory (Foulds).

2.2 Subjects

The subjects were 29 female and 29 male alcoholic in-patients at a specialist alcoholic hospital, with a mean age of 46.37. This hospital serves the lower-middle class. The subjects were admitted over a period from July 1977 to August 1978.

Brain damaged and subjects who were intellectually unable to complete the test material were excluded. They were assessed on clinical records.

2.3 Procedure (for all female subjects)

Each subject was seen within 4 days of admission. The Experimenter (E) introduced herself as a part time psychologist routinely interviewing female in-patients. Subjects were informed that part of the information was for research purposes.

A structured interview drawn up by the E was used to elicit relevant background information. This was followed by the administration of the Symptom Sign Inventory. During the same time, on the following day, the subjects completed the remaining 3 tests. These were the 16 PF, the HDHQ, and the SD. These are all self-rating inventories and were administered in the presence of the E.

Procedure for males: A sample of male in-patients matched on age were individually tested on the SSI by the E. The E introduced herself as a part-time psychologist and the research orientation of the interview was mentioned.

2.4 Patterns of Drinking

Using clinical data from file material, the subjects were classified into one of three groups (gamma, delta and intermediate,) using Walton's criteria of Jellinek's classification. These were independently carried out by three members of the hospital staff and cross verified by the E.

Apparatus

Cattell's 16 Personality Factor Questionnaire

This is an objectively scorable self-rating inventory covering various basic personality traits isolated by Cattell. They include 16 independent primary factors. The test was included on its merit of effectively isolating personality

traits. The validity and reliability of this test has been widely explored on alcoholic samples but never on a sample of female alcoholics.

Hostility Direction of Hostility Questionnaire (Foulds)

This is a self-rating inventory which attempts to measure a range of hostility and punitiveness. It has 5 scales which yield four measures of hostility. These are: total hostility, direction of hostility, extrapunitiveness and intrapunitiveness.

This test has been widely used in research on alcoholism as hostility is considered to be a crucial component of alcoholism and a measure of psychological disturbance. In this study, it was used to give an aetiological dimension to disturbance.

Symptom Sign Inventory (SSI)

The Symptom Sign Inventory is a diagnostic test. It gives a broad diagnosis of Neurosis, Psychosis and Personal Disturbance in addition to 8 classes of differential diagnoses.

Its use in this study was to cover the broad psychiatric symptom clusters of male and female alcoholic samples. It is verbally administered.

Semantic Differential (SD) (Osgood)

The Semantic Differential is a rating procedure for the measurement of meaning. It consists of a 7 point scale

terminating in a set of 20 bi-polar adjectives. A "D" statistic is employed to calculate the distance between the profiles being measured. There are on each profile which is used in the measurement of a paradigm concept.

It was included in this study to ascertain the way the female alcoholic construes she is perceived by others as against her self-perception.

3. RESULTS

3.1 A Comparison of the Personality Traits of Gamma, Delta and the Intermediate Group on the 16 Personality Factor Questionnaire (16 PF)

The constraints of the statistical technique employed, required that 3 separate one-way multivariate analysis of variance be carried out. The 16 factors were therefore divided into 2 groups of 6 factors and one group of four factors.

The 3 Manova F-ratios were not significant at ,05 level of probability. This indicated that there were no significant differences between the gamma, delta and intermediate groups on any of the factors on the 16 PF.

3.1 A comparison of the Gamma, Delta and Intermediate Groups on 4 Variables of Hostility as measured by the Hostility Direction of Hostility Questionnaire (HDHQ)

The Manova F ratio on the 4 measures of hostility was significant ($p < ,05$). A Hotellings T^2 for independent samples

was carried out to ascertain which of the three groups differed from each other on the 4 variables.

Hostility	Gamma		Delta	
	X	SD	X	SD
Total hostility	28,5	4,83	20,09	6,6
Direction of Hostility	4,5	5,28	8,27	4,0
Extrapunitiveness	15,8	4,54	9	3,71
Intrapunitiveness	13,1	1,52	10,36	2,94

Key:

X = mean

SD = standard deviation

$$T^2 = 25,06$$

$$F = 5,28^*$$

$$DF = 4,16$$

$$* (P = <,01)$$

T^2 was significant only for the Gamma-Delta group comparison

Since T^2 was significant, t^2 were carried out to ascertain on which variables the gamma and delta groups differed from each other.

Vector of mean differences and standard errors

	Total Hostility	Direction of Hostility	Extrapunitiveness	Intrapunitiveness
Mean Differences	8,71	-3,77	6,8	2,74
Standard Errors	1,27	1,61	0,90	0,52
t ²	47,05	5,48	57,12	27,77

The t² was calculated to ascertain which of the variables discriminated between the two groups (gamma, delta).

The t² was significant for Total Hostility, Intrapunitiveness and Extrapunitiveness. Thus the gamma group differed significantly from the delta group on these variables.

3.3 A Comparison of the Gamma, Delta and Intermediate Groups on the Semantic Differential (SD)

Four profiles were drawn up for use with the SD. These were subjects perception of:

- (a) Self;
- (b) Significant others perception of self;
- (c) Society's perception of self;
- (d) Ideal self;

A one-way analysis of variance was carried out on the 6 comparisons of the four profiles. However, there were no

significant differences on the 4 profiles between the 3 groups as measured by the SD on the (a) (b) (c) (d) discrepancy.

3.4 A Comparison of the Distribution of 3 broad Psychiatric Symptom Clusters between Male and Female Gamma, Delta and Intermediate Groups

A Chi Squared (X^2) analysis of the distribution of the symptom clusters between male and female gamma, delta and intermediate groups was carried out. No differences in the distribution of symptom clusters were found between male and female gamma delta and intermediate groups.

3.5 A Comparison of the Age of Onset of Excessive Drinking between Gamma, Delta and Intermediate Groups

An analysis of variance was carried out between the three groups on the age of onset of excessive drinking.

Anova summary of age of onset of gamma, delta and intermediate groups

Source	Sum of Squares	Degrees of freedom	Mean squares within	F ratio
A	953,80	2	476,90	4,65*
Error	266,64	26	102,55	

*P = 0,05

The F ratio is significant at $P < 05$ thus there is a significant difference in the age of onset of excessive drinking between

the gamma, delta and intermediate groups. In order to find out where the difference lies, a Multiple Comparison was carried out using a Tukey's HSD statistic.

$$\text{Tukey's HSD} = 4,64^* \quad \text{DF} = 3,26$$

$$* p = < ,01)$$

The Tukey's HSD statistic revealed that there was a significant difference in the age of onset of excessive drinking between the gamma and the delta group.

4. DISCUSSION

The results reveal that there were significant differences between the gamma and delta groups on three measures of the HDHQ ($p < ,05$). These were Total Hostility, Extrapunitiveness and Intrapunitiveness. In accordance with Foulds, these reflect increased inability to maintain or establish mutual personal relationships. This he sees as reflective of greater psychological disturbance. The Intropunitiveness measure is of particular importance as it reveals aspects of self criticism and guilt as measures of psychological disturbance. These are considered to be particularly relevant to the female alcoholic due to the social unacceptability of alcoholism.

These findings concur with Abelson (1973) and Walton (1968) who found gamma to be more disturbed on the HDHW than the delta group.

The significant difference on the age of onset of excessive drinking is consistent with Abelson. These findings support the hypothesis that gamma represent a more disturbed pattern of alcoholism than delta.

Three case studies were analyzed. The observation of the gamma and delta cases, support, together with findings from the HDHQ, that a gamma pattern presents a more disturbed form of alcoholism.

These findings provide evidence in support of the idea of subtypes among female alcoholics.

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INTRODUCTION

The literature on the female alcoholic constitutes an adjunct to the main body of literature on alcoholism. In fact, the literature pertaining to the female is prefixed by 'female/woman', whilst that pertaining to the male is subsumed under the pronoun 'the' alcoholic. This implies a duality in the way alcoholism problems among men and women are perceived and researched.

In research, the female alcoholic has received less attention than her male counterpart, and furthermore, the methodological standard is inferior (Beckman, 1975, 1976; Litman, 1975). Recent reviews dealing with this problem have emphasized the need for more rigorous research (Beckman, 1975, 1976).

This neglect derives from the erroneous idea that the incidence of alcoholism among women is lower than it is among men. However, assumptions of this nature are based on estimates of the proportion of male to female alcoholics from public treatment centres (Snyder, 1965; Sclare, 1970; Gomberg, 1974). In private practice, the proportion of female alcoholics is closely approximating that of male alcoholic patients (Block, 1960; Lindbeck, 1972). This discrepancy reflects a central issue facing female alcoholics, namely the social unacceptability of alcoholism (Stafford & Petaway, 1977; Litman, 1976; Gomberg, 1974).

Implicit in this is the notion "that most Western societies limit drinking and drunkenness more in women than in men" (Gomberg, IN Franks and Burtle, 1974, p.171). The implication for the woman who exceeds the socially approved limits of alcohol consumption are evidenced in attempts on the part of the woman to mask and conceal the problem. These are manifested in (a) private and solitary drinking patterns and (b) seeking attention in private practice in favour of more specialized public treatment centres. One of the major implications lies in the samples that present at these respective centres. It is widely hypothesised that as a result of these pressures, only a more disturbed sample present in public treatment centres (Lisansky, 1957). In view of the fact that most research is based on the samples from public treatment centres, there has been a tendency to generalize findings to the total population of female alcoholics. Hence the widespread belief amongst professionals that women alcoholics are more psychologically disturbed than their male counterparts (Lisansky, 1957; Bechman, 1975; 1976; Litman, 1976).

However, this hypothesis must be questioned in terms of (a) biased sampling and (b) the approach in investigating female alcoholics. Until recently, researchers have tended to investigate female alcoholics as a single undifferentiated group. This has had the potential to obscure particular subtypes among female alcoholics. As a result, erroneous conclusions were drawn which further contributed to a retardation of research and understanding into many problems of alcoholism among women.

In the light of the above, the aim of the present study is to investigate subtypes of female alcoholics using Jellinek's criteria of gamma/delta alcoholism (1960). A further aim is to investigate the hypothesis of greater psychological disturbance among female alcoholics. In so doing, it is hoped that subtypes of alcoholism will be revealed and that this will ultimately yield greater understanding into some of the problems of alcoholism among women.

However, at this juncture the definition of alcoholism warrants review.

DEFINITION OF ALCOHOLISM

At the outset, it must be stated that the term "alcoholism" has been replaced by the term "alcohol dependence" in the latest International Classification of Diseases (ICD Section V). However, in most of the literature, the term alcoholism is still widely used. For the sake of brevity, the term "alcoholism" shall be used instead of alcohol dependence, throughout this review.

"No area in medicine is so bedevilled by semantic confusion as is the field of alcoholism." (Davies, 1969, p.18).

This quotation reveals two crucial issues surrounding the definition of alcoholism. These are (a) the validity of a purely medical conceptualization of alcoholism, and (b) the usefulness of definitions of the disorder to date. These

two issues ultimately derive from the absence of an agreed-upon aetiology of alcoholism (Glatt, 1973; Hudolin, 1973). This consequently renders any single conceptualization such as the medical approach questionable. These two issues need to be considered prior to any investigation in this area. The latter shall be dealt with first.

In the field of alcoholism, there exists a plethora of definitions, few of which have attained the status of a useful definition. One of the main reasons derives from the multi-dimensional and diversified nature of the disorder. Alcoholism encompasses an array of dysfunctions which range from the purely bio-chemical to the psycho-social. The combination and severity of these dysfunctions vary in degree from individual to individual. The role of definition in this context, is to facilitate diagnosis, but the individual variability presents difficulties in diagnosis itself. Thus the problems facing definition reflect the very diverse nature of alcoholism.

There are some widely used definitions of alcoholism. However in the light of the variability of the disorder, many of these ~~definitions~~ are unable to include all aspects characteristic of the disorder. Two widely accepted definitions shall be outlined. These are to be used as working definitions throughout this review.

The most recent definition of alcoholism (alcohol dependence) agreed upon by the World Health Organisation (WHO) is that

"it is a state, psychic and sometimes also physical, resulting from taking alcohol, characterised by behavioural and other responses that always include a compulsion to take alcohol on a continuous or periodic basis in order to experience its psychic effects, and sometimes to avoid the discomfort of its absence; tolerance may or may not be present" (WHO, ICD Section V).

This definition stresses psychological and physiological dependence upon alcohol and the pattern of alcohol consumption. However, it fails to stress the aspect of damage in the disease.

With respect to this, both Davis (1973) and Jellinek (1960) have pointed to the component of dependence as well as damage which is fundamental to any definition of alcoholism. This is expressed in:

- (a) an urge or compulsion and craving for alcohol;
- (b) actual withdrawal symptoms. These two constitute dependence, while
- ? (c) represents the harm, whether physical, mental, or social in the broadest sense, to the individual or to others (Davis, 1973, p.14).

A prior WHO definition does, however, include the dimension of damage. For this reason it shall be used in conjunction with this latest definition. Here, alcoholism is defined as: "Those excessive drinkers whose dependence on alcohol has

attained such a degree that they show a noticeable mental disturbance or interference with their mental and bodily health, their interpersonal relationships, their smooth economic functioning, or who show prodromal signs of such development. They therefore require treatment." (Kessel and Walton, 1969, p.18). In this definition, the concept of damage is adequately stressed.

The two WHO definitions will be seen in conjunction with each other in relation to the importance they attach to the term DEPENDENCE. In fact, a latest WHO publication on alcoholism stresses alcohol-dependency as central to alcoholism whilst the alcohol related disabilities (damage) can be seen in their own right. However, they stress that severe dependence will eventually imply damage (WHO, 1977).

"Dependence" implies the absence of choice in stopping drinking once it has started. It also implies the absence of control in the onset of drinking. According to Keller "at some time, under the impulsion of some cue or stimulus, which may be well outside his (her) conscious awareness, he (she) will drink" (Keller, 1972: p.160). This concept of dependence is fundamental to the medical conceptualization of alcoholism.

Finally, the notion of drinking patterns has only recently been considered by WHO as an important determinant in the "types of dependence" of alcoholism, but it is fundamental to Jellinek's definition of alcoholism (WHO, 1977, p.1088).

The second definition is that of Jellinek (1955, 1960) which was developed in two stages. He initially employed the concept "alcohol addict" to refer to those who were physically addicted or dependent on alcohol. He saw this as manifested in:

- (a) a particular drinking pattern (either an inability to abstain or a loss of control).
- (b) a craving for alcohol
- (c) an increased tissue tolerance to alcohol
- (d) withdrawal symptoms in response to abstinence (Jellinek, 1960).

However, he subsequently (1960) broadened his definition of alcoholism to "any use of alcoholic beverage that causes damage to the individual or to society" (Jellinek, 1960). Here, he introduces the dimension of damage into this expanded definition which now resembles those of WHO. Furthermore, the value of such a broad definition "forces us to single out species of alcoholics and to speak of them in stringent terms" (Ibid., p.36). He delineates 5 patterns of alcoholism consumption which vary in their respective degrees of damage and dependence. The definitions of WHO and Jellinek are similar in their attention to dependence, damage and drinking patterns. However, the specificity of Jellinek's definition lends itself more to an operational definition. For this reason it was included as a research tool in this investigation. The 5 patterns or species of alcoholism are; Alpha, Beta, Gamma, Delta and Epsilon.

Alpha basically refers to a mere psychological reliance on

the effects of alcohol for the relief of emotional pain. There is no evidence of physical dependence or any other aspects like loss of control or inability to abstain.

Beta represents the medical complications of alcohol consumption like polyneuropathy, gastritis, pancreatitis and cirrhosis of the liver without any psychological dependence. This form occurs most often when socially accepted customs of drinking are associated with poor nutritional habits.

Gamma represents the "epitome" of alcoholism, and is a form of chronic alcoholism with both physical and psychological dependence. Fundamental to this pattern is a "loss of control" over alcohol. This is evidenced by an inability to stop after the first drink; drinking continues to the point of intoxication. There is, however, an ability to abstain from drink for varying periods within bouts of drinking. Drinkers lying within this category have the greatest potential for disruption of interpersonal relations, the highest incidence of medical complications and the greatest social deterioration as a result of "loss of control". In addition, there exists a greater incidence of associated psychopathology.

Delta is characterised by an inability to abstain from drink rather than a loss of control over drink. Although the delta drinker cannot abstain from drink, he/she can control the amount which is consumed regularly. Here there is a continuous pattern of drinking, but not to the point

of intoxication as the gamma drinker. The incidence of medical complications is comparable to gamma drinkers, but the degree of associated pathology is less than amongst gammas. Further symptoms of withdrawal and physical dependence occur when an attempt is made to abstain.

Epsilon represents a form of bout drinking where physical dependence may or may not ensue. The dynamics of this pattern are least understood and this category is not usually used for diagnostic purposes.

These definitions, WHO and Jellinek, adequately cover the crucial criteria for a diagnostic definition of alcoholism. However, they warrant further conceptual investigation as they do not fully consider the social context of alcoholism. By this is meant the social definition and meaning of alcoholism outside of the medical paradigm. This raises the second point noted earlier, namely the usefulness of the medical conceptualisation of alcoholism.

MORAL AND MEDICAL MODELS OF ALCOHOLISM

"In drunkenness of all degrees of every variety, the church sees only the sin; the world the vice; the State the crime. On the other hand, the medical profession uncovers a condition of disease ..."
(Kerr, IN Davis, 1973, p.13).

It was not until the 1950's that the concept of alcoholism was "officially" rescued by the medical profession from the

realms of morality. This was formalized by the inclusion of alcoholism in the medical nomenclature of diseases. Essentially, this endorsed the right on the part of the alcohol abuser to seek help or treatment. This supposedly had the effect of freeing the alcoholic from bearing the consequences of his/her behaviour as wrong and hence unacceptable. Implicit in this was the place of responsibility in alcohol abuse. From a moralist perspective, the consequences of alcohol abuse were seen as a result of the responsibility, or rather, irresponsibility on the part of the abuser. This implied a degree of control, and choice in their determination of the problem. However, from a medical perspective, the consequences of alcohol abuse were in fact seen as an integral part of the disruptive effects of alcoholism over which the inebriate had no control. Thus, responsibility is de-centred, and the idea of "loss of control" becomes central to the medical position.

In this respect, the medical conceptualization is at variance with the legal conceptualization of alcoholism. Like the moral or sin-model, the legal conceptualization is largely based on the idea of responsibility and control in alcohol abuse. Restrictions are imposed on the quantity of alcohol consumed when in public. Exceeding these limits is seen as an offence and punishable by law. These offences apply mostly to drunken driving and drunkenness in the street. These are potentially disruptive to others and for this reason are (a) connected to responsibility and (b) punishable by law.

In dealing with such offenders, there is liaison between the law and the medical profession. For although the law enforces punishment (suspension from driving), it then hands over such offenders to the medical (psychiatric) profession for treatment.

So, in spite of the assumptions of responsibility, the legal model recognizes the loss of control and consequential need for medical treatment.

At this point the medical conceptualization and disease concept shall be outlined in some detail.

THE DISEASE CONCEPT OF ALCOHOLISM

As mentioned earlier, "dependence" and "loss of control" are central to the medical conceptualization of alcoholism. Furthermore, these are notions underlying most Anglo-american therapeutic goals of abstinence.

Jellinek's formulations of loss of control (LOC) and inability to abstain (a related phenomenon), are firmly anchored within a physiopathological framework. Jellinek saw these processes as sharing both increased tissue tolerance to alcohol and craving and withdrawal symptoms. Furthermore, they constitute the pharmacological basis for defining alcoholism as a disease. The idea that the pharmacological dynamics are pathognomic and hence synonymous with the concept of disease has been supported by various writers (Glatt, 1973;

Keller, 1972; Davis, 1973; Jellinek, 1960). However, some writers (Davis, 1973; Glatt, 1973; Mansell-Pattison, 1973) criticize Jellinek's uni-dimensional definition of LOC in favour of a multi-dimensional definition which includes psychological and social ramifications of the disease. It is this expanded conceptualization that makes sense of many assumptions of alcoholism and related disorders which would never make sense in Jellinek's strictly pharmacological definition (Glatt, 1973). In fact, it is this broadened view which links psychological research to patterns of alcoholism and hence the possibility of the present type of research.

It must, however, be emphasized that the enlargement of the concept does not invalidate the disease nature of the disorder (Glatt, 1973). It merely includes other levels which affect and are affected by the damage and disruption of alcohol. The expanded definition is best exemplified in the comprehensive and hence multi-disciplinary approach to treatment. This combines drug treatments as an adjunct to the psycho-social therapeutic programme. Thus the management of the alcoholic attempts to include three broadly related problem areas, namely medical, psychological and social.

However, many would agree (Glatt, 1973; Davis, 1973; Hudolin, 1973) that alcoholism is not the same as other psychological or somatic diseases. Although the problem areas are adequately catered for in treatment, there is an aspect which is omitted in the overall evaluation of the alcoholic. This is the social acceptability of alcoholism

as manifested in attitudes, prejudices and pre-conceptions of the alcoholic. Thus, the moral or sin model constitutes an important part of the perception and definition of alcoholism.

Some Implications of the Moral Conception of alcoholism

This issue will be briefly outlined using an analysis by David Fields (1974) on the social definition of certain illnesses. His main contention is that certain forms of illness invite bias and prejudice on the part of the "others". This has the effect of setting the individual concerned apart on account of some condition which is met with social disapproval. Fundamental to this dynamic is stigmatization.

In the context of alcoholism, stigmatization is constituted primarily in the disintegration of behaviour. This implies a failure to meet social expectations of what is considered normal, acceptable behaviour. This is further compounded by the presentation of inappropriate behaviour whereby the behaviour becomes a violation of social expectations. Thus the situational impropriety and inappropriateness of various manifestations of disorders, which are largely mental disorders (Fields), become determined by standards of normality or what is essentially considered acceptable behaviour.

Thus the behavioural disruptions that accompany alcoholism are interlaced with problems of stigmatization such as guilt. A detailed discussion of these problems falls outside of the scope of this investigation. However, it is appropriate

for our purposes to examine the problem of stigmatization
as it applies to the female alcoholic.

SOCIETY AND ALCOHOL

Broadly speaking, the intake of alcoholic beverages is institutionalized and sanctioned according to the acceptable cultural limits. In most Anglo-American societies, there are two broadly defined categories of alcohol consumption: social drinking and excessive drinking.

Social drinking appears to have three major characteristics:

- (a) it implies a moderate intake of alcohol;
- (b) it is public;
- (c) it usually includes both sexes.

Excessive drinking, on the other hand, implies exceeding the socially approved limits of alcohol consumption. In most Anglo-American societies, the norms of acceptable drinking include "maintenance of self-control, fulfilment of roles and rules of social drinking, such as 'holding one's liquor'" (Sergent, 1968, 1976). Exceeding these norms is regarded as deviant behaviour and is liable to labelling as such. Such a label is designated a social problem and in need of intervention, social or medical. Furthermore, an implication of such labelling involves stigmatization.

Essentially, the limits of acceptable excessive drinking are not the same for both sexes. They cut through the sexes both vertically and horizontally, setting different limits for each sex. Thus a double standard of drinking emerges;

the limits for women being more stringent than for men (Stafford and Petaway, 1977; Gomberg, 1974). Thus differential informal sanctions are invoked for men and women. Because the sanctions (to be discussed) for women in mixed public situations are more stringent, the alternative of a private pattern emerges for female excessive drinkers, whilst the "public" pattern is still retained for male excessive drinkers.

CLASS

In addition, this appears to transcend[^]barriers. Although most of the literature focuses on the middle-class female alcoholic, there is evidence to suggest that among the lower classes, the norms against women drinking excessively are more stringent than among men (Garret and Bahr, 1973). Thus the double standards of excessive drinking appear to be typical of most Anglo-American societies.

WOMEN AND ALCOHOL

"... we are only beginning to come to terms with the insidious double standard as ... we have always come down harder on drunken women" (Frazer, IN Stafford and Petaway, 1977, p.2110).

The assumption that society places greater moral stigma on the female than male alcoholic and the conviction of the double standards is found in most literature on women alcoholics (Gemberg, 1974; Litman, 1975; Stafford and Petaway, 1974).

From an early age there is far greater pressure on men to

participate in heavy drinking than there is on women. In fact, for men the institution of heavy drinking is characteristic of many social activities. Furthermore, a high intake of alcohol is often seen as a measure of manhood.

As a result of this, heavy drinking amongst men must be seen as intricately related to aspects such as the prevalence of drinking institutions and the availability of alcohol. Thus although excessive drinking is not met with social approval, heavy drinking is nevertheless sanctioned.

However, the situation is quite different among women. There are no socially prescribed drinking establishments or rituals which are either exclusive to women or predominated by women. Basically the ritual of drinking is situated in the context of male fellowship, its endorsement to women being an appendage of what is essentially a male right. In South Africa, the enfranchisement of drinking actually bars women from entering drinking houses. Women are only admitted to few drinking lounges which are characterised by social and moderate drinking. Thus, in South Africa the discrimination is overt.

However, there is suggestion in the literature (Wiesnak, 1973
Gomberg 1974) that attitudes towards female drinking are changing and drinking is becoming more permissible. Some authors attribute the increase in the incidence of female alcoholism to the impact of the Women's Liberation Movement, and to the changing sex roles of women. They see this impact in the "greater acceptance of the previously 'hidden'

alcoholic women and greater exposure of women to heavy-drinking situations" (Wilsnak, 1973). During recent years, the Women's Liberation Movement has had a growing impact on the social position of women. Although there have been changes in various spheres, the precise nature of the effect and degree of change in acceptability of drinking in women is not yet known.

One way of ascertaining these attitudes lies in reviewing some literature in this field. However, to date few studies have been carried out. These have focused largely on the laymen's perception of female alcoholics.

Some Lay Perceptions of Female Alcoholics

Many writers support the view that stigmatization is still current among women alcoholics, despite changing attitudes of social drinking (Gomberg, IN Frenkel & Burtle, 1974).

Litman, (1976) in a study using person-perception techniques, found that the layman tended to perceive the woman alcoholic negatively. A recent study by Cartwright and Spratley (1976) evaluated lay perceptions of male and female alcoholics by asking two questions on alcoholism:

1. What are the effects of someone drinking too much?
2. What are the particular effects of women drinking too much?

to a sample of lay outpatients. They found that males were perceived more in terms of the medical complications of the

illness, whilst women were perceived more in terms of the normative and moral connotations. These included sexual promiscuity and homosexuality which were considered as more unacceptable than anti-social behaviour among men. Moreover, social and psychological components like marital disruption and low self-esteem were perceived as characteristics of women alcoholics whilst medical complications like cirrhosis of the liver were perceived to be characteristic of male alcoholism.

With regard to sexual promiscuity, Kneysfer (cited in Gomberg 1974) in a study on attitudes towards female alcoholics, found that "female drunkenness and loose sexual behaviour are associated" (p.137). With regard to sexual promiscuity it has been suggested that alcohol affects men and women differently. Women are able to participate, or at least be more sexually available, after heavy drinking whereas men are likely to be rendered impotent by large amounts of alcohol.

This view implies a double standard. While alcohol's effects on male arousal are sanctioned, females are seen as promiscuous and this conception appears to be bound up with moralistic conceptions of indecorous behaviour (Litman, 1975; Gomberg, 1974).

A recent study using the Semantic Differential (Stafford and Petaway, 1977) investigated stigmatization of female and male alcoholics. There were no significant differences in support of the idea of greater stigmatization of women alcoholics as stigmatization was found to be the same for

both male and female alcoholics. The only evidence in support of greater stigmatization of women comes from the finding that women alcoholics were rated significantly more "hopeless" on the Semantic Differential than male alcoholics. Stafford et al see this as an implication of a low self esteem among women alcoholics which is related to the idea that women alcoholics may need greater social approval.

However, despite these meagre findings, they conclude that stigmatization as linked to hopelessness may be interpreted as social disapproval.

Although it would be of interest to evaluate the professional's perception of the female alcoholic, there is no literature in this area. There is, however, literature on the professional perceptions of alcoholics as a group distinct from other medical problems. It may be useful at this stage to briefly consider some research on professional attitudes towards alcoholics in general, as much of this inevitably applies to the female alcoholic. Fisher, Keeley, Mason, Fisher (1975) found that GP's rate alcoholics as "sicker, weaker and more hopeless" than average persons. Their data reveal that GP's judge alcoholics with "moralistic criteria in addition to medical criteria" (Ibid., 1975, p.631). A 3-year follow-up of attitudes towards alcoholics among professionals and social agencies revealed no change in attitudes, despite increased awareness of and concern for persons with alcohol problems (Darsch & Tallay, 1973).

Thus the implications of these findings is that the label of

alcoholic has connotations which have not altered significantly over the years despite the medical orientation in the management of alcoholism. Although no conclusions can be drawn regarding the perception of the female alcoholic, the overriding tendency to stigmatize the alcoholic is a factor to consider.

Thus it appears that the professional, whose working definition of alcoholism purports to be a disease concept, nevertheless in addition tends towards a moralistic perception of the alcoholic. The implications of this for the women are crucial and will be discussed in the light of the literature.

THE LITERATURE DEALING WITH THE FEMALE ALCOHOLIC

As mentioned earlier, there is a dearth of literature dealing with alcoholism among women. Of this, only a fraction deals exclusively with the female alcoholic, the rest focuses on comparisons between male and female alcoholics. Moreover, the methodological standard of much of the research is inferior to that on the male alcoholic (Beckman, 1975, 1976). This neglect has widespread implications for (a) the understanding and treatment of alcoholism among women, and (b) for the accuracy of estimates of the incidence. The incidence is widely underestimated.

Epidemiological Data

The rationale underlying the neglect of the female alcoholic

derives fundamentally from the estimates of the incidence of alcoholism among women. Most of these estimates are based on the proportion of female:male alcoholics in public treatment centres. These estimates range from 1:8 (Sclare, 1970); 1:6 (Jellinek, 1960); 1:3 (Parr, 1957) and 1:4 (Gomberg, 1974). In private practice, however, the percentage of female alcoholics is estimated to be between 33% and 50% of all alcoholic patients (Block, 1965; Lindbeck, 1972).

This discrepancy suggests (a) that the incidence of alcoholism among women is far more extensive than estimates from public centres reveal, (b) the tendency for women to seek private attention, thereby concealing the drinking problem.

It has been suggested that many alcohol problems among women go unnoticed in private practice. The conventional practitioner, knowing only the stereotype presentation of alcoholism, namely as among men (Gomberg) may overlook the diagnosis if the signs are not obvious. Furthermore, it has been suggested (Litman, 1976) that the primacy of the alcoholism has been overlooked in favour of some secondary diagnosis. This may, in addition, be compounded by the denial of alcoholism on the part of the women.

Thus the presentation of alcoholism among women in private practice has the potential to go unnoticed. This may apply particularly in the early stages of the disease.

This view implies that alcoholism among women should be accorded the attention which its real incidence warrants.

The Clinical Profile of the Female Alcoholic

In the research, there has been a tendency to investigate features of women alcoholics by comparing women with men alcoholics. Various differences have been found on certain clinical dimensions. As a result of this, there has been a tendency for many writers (Lisansky, 1957; Curlee, 1970; Rathod and Thompson, 1971; Sclare 1970, Rimmer, Reich and Winokur, 1972) to support the idea that women present a different clinical profile from men alcoholics.

The tendency to see the clinical symptoms differently is intricately related to the differing social situations of men and women. This has the potential towards stereotyping of women and hence the woman alcoholic.

Some characteristics of the "typical" female alcoholic will be briefly outlined.

1. Family Background Data: Sherfey (1955) found a family history of alcoholism among 68% of women alcoholics compared with 45% of men alcoholics. Lesansky (1957) noted that 54% of women compared with 34% of men had a parent who drank excessively. These findings have been confirmed by Winokur et al (1970) and Wood & Duffy (1966). Rosenbaum (1958) found that women alcoholics displayed greater emotional deprivation in childhood than men alcoholics.

Kinsey (1968) and Wood & Duffy (1966) found that a higher, though not significant, percentage of female alcoholics perceived

themselves to have had cold, severe domineering mothers and warmer gentle and often alcoholic fathers.

2. Psycho-Social Data: Curlee (1970) and Lisansky (1957) found excessive drinking in women to be more related to psychological stress and a specific precipitating factor. This has been linked with the "empty-nest" syndrome or middle-age crisis - when children leave home and roles of mother change. (Curlee (1969) and accounts for the later age of onset of excessive drinking reported among women (Lisansky, 1957; Rathod et al, 1971; Rimmer et al, 1971; Winokur et al, 1970). This is further related to the "telescoped" developmental pattern. This is evidenced in a shorter time between early problem drinking and the development of late stage symptoms (Guatt, 1961; Curlee, 1970, 1971) and a shorter duration of excessive drinking before referral to treatment (Lisansky, 1957; Rathad et al, 1971; Sclare, 1970). Furthermore, factors like premenstrual tension, menstrual tension and difficulties, post-partum depression and menopause (Wall, 1937; Wood & Duffy, 1966) have been reported in connection with a late age of onset among women alcoholics.

The literature abounds with evidence in support of the particular qualities of the female alcoholic. However, one of the most characteristic features in the literature is the widespread belief among professions that women alcoholics are much more abnormal and "show greater psychopathology and emotional maladjustment than do their male counterparts" (cited in Lisansky, 1957; Rathod et al, 1971; Sclare, 1970; Rimmer

et al, 1971).

Hence the idea of greater disturbance among women alcoholics. It is this central issue which is to be critically explored in this investigation.

THE HYPOTHESIS OF GREATER DISTURBANCE AMONG WOMEN ALCOHOLICS

The rationale for this hypothesis is linked to the idea that social norms against women drinking are so strong, that only a severe degree of disturbance would tolerate the expression of drinking. This is the basic principle underlying Jellinek's (1960) "vulnerability-acceptance hypothesis".

By "vulnerability-acceptance" is meant an inverse relationship between psychological vulnerability and social norms. Jellinek found that "... in societies which have a low degree of acceptance of large daily amounts of alcohol, only those will be exposed to the risk of addiction who on account of high psychological vulnerability have an inducement to go against the social standards. But in societies which have an extremely high degree of acceptance of large daily alcohol consumption, the presence of any small vulnerability, whether psychological or physical will suffice for exposure to the risk of alcoholism." (Jellinek, 1960, p.19).

This hypothesis was derived largely from the differing patterns of alcohol consumption and the prevalence of psychological disorders in France and the USA. In France,

where large amounts of alcohol are customary, there is a low incidence of related psychological disorders. But the converse holds for the USA.

With regard to the female alcoholic, the low acceptance of alcohol tends to support the hypothesis of greater disturbance. However, various factors have to be considered before this hypothesis may be accepted.

Firstly the concept of psychological disturbance must be clearly defined. Furthermore, the point has been raised that that men and women are not compared on the same norms of behaviour and that women alcoholics deviate "more from norms of what is considered 'feminine' behaviour than male alcoholics do from 'masculine' behaviour". (Litman, 1975, p.13; Lisansky, 1975). Broverman (1970) reveals that professionals adopt different criteria for judging "mentally healthy behaviour" (Ibid., 1970, p.1) among men and women, and that women are judged more in terms of moral standards.

Thus the hypothesis of greater disturbance among women alcoholics must be seen in connection with two points raised earlier. These are (a) the unacceptability of excessive drinking among women, and (b) and bias among professionals to perceive women alcoholics more negatively. So this problem must now be posed in terms of more objective and rigorous criteria of psychological disturbance.

Beckman (1975, 1976), Sclare (1971) and Litman (1976) stress the need for well and better controlled studies. Several

of these inadequacies are evident in an evaluation of the validity and reliability of parameters used in the measurement of psychopathology. In this light many findings may be seen as an artefact of methodological inadequacies rather than peculiarities among female alcoholics.

AN EVALUATION OF MEASURES OF PSYCHOPATHOLOGY IN LITERATURE

In the literature, measures of psychopathology derive from the following:

1. Number of psychiatric admissions;
2. Incidence of suicide attempts;
3. Marital instability;
4. Difficulty in treatment and poor prognosis.

1. Number of Psychiatric Admissions:

Curlee (1971) noted that women were more likely to be admitted as psychiatric patients, were admitted more often and for longer periods than were male alcoholics. In addition, she found that women displayed a higher incidence of depression accompanying alcoholism.

With regard to the latter, her measures of depression were based on the subject's reports. This was the only criterion used and it is felt that additional data like clinical history or psychiatric diagnosis were required before an adequate evidence of depression could be shown.

It is felt that the reliability of the number of psychiatric admissions is a rather equivocal measure of psychopathology in the light of certain aspects regarding female alcoholics. Lisansky (1957) makes the point that the pressures on women to conceal drinking are so strong that only the more disturbed women finally present for treatment. This idea, which is linked to the vulnerability-acceptance hypothesis, is widely supported in the literature (Beckman, 1975, 1976; Rimmer, 1970, 1971). A further point is related to the efficacy of social norms in keeping women with drinking problems away from treatment such that when they do finally present, they do so in the late stages of the disorder.

The implication is that these samples, therefore, and not representative of the total population of female alcoholics. They rather represent the segment who seek public treatment and hence who are more disturbed on admission. So although these findings may be representative of the population that seek treatment, this sample is not representative of the total population of female alcoholics.

It must be stated that a high percentage of men are referred to psychiatric treatment via the law. This, however, is not the case among women who have negligible police contact as a result of the private drinking pattern. Thus among men there are two broad sources of referral, and among women only one. The result is that a larger percentage of men who would not voluntarily seek treatment are referred by law. Thus the distinction between voluntary, or referral by a "helping" agency, and court order, or committal by law, emerges.

This distinction is related to the degree of coping and management between the two. It could be that without the drunken offence, the alcoholic is able to maintain his lifestyle and not require treatment, for his view-point.

On the other hand, the alcoholic, male or female, who is referred for treatment by either their family, doctor or self, is apparently unable to cope with the drinking problem and therefore appears to be in need of outside help. One implication of this is the degree of psychological disturbance between the two groups. It may be hypothesized that the "voluntary" alcoholic is more disturbed than the court order alcoholic. This bears directly on the population of male and female alcoholics that present for public treatment. There is a broader spectrum of alcohol-related problems among visible male alcoholics than female, which may increase the range, thereby lowering the incidence of one "type" of problem such as psychological disturbance. Seen in this light, the apparent higher incidence of psychopathology among women becomes an artefact of the limited cross-section of alcohol related problems that present in treatment among women.

Finally, the point has been made that women are more likely to be labelled "sick" than men. This is based on the relationship between gender roles and illness (Phillips and Segal, 1969; Gove and Tudor, 1973; Oakely, 1976). Basically the feminine gender role is seen to be more congruent with the sick role than is the masculine role (Oakley, 1976, p.96). The argument stresses that the woman's complaint of depression

for example, has a higher degree of social acceptability than does the same complaint for the man, as "it is more in line with the expectations of femininity" (Ibid., p.96). Thus, in this context, certain manifestations of illness are more prevalent in each sex; the psychological illness, such as depression in particular, being more common to women, whilst the psychosomatic illness such as hypertension, is more common to men. There is also evidence that women visit a doctor more frequently (Balint, 1970, p.76) than men. So the idea of a higher incidence of illness among women, in particular psychological illness, must be considered in terms of cultural gender stereotyping of illness.

There is no attempt to draw conclusions at this stage. This is merely a point to bear in mind in relation to the idea of greater psychological disturbance among women alcoholics which will be revealed later.

Thus the use of psychiatric admissions as an index of psychopathology is inadequate in the light of many points raised above. The ideas (a) that only a more disturbed population present for treatment (in public centres) and (b) of the culturalization of sock roles and feminity renders suspect the validity of such a measure.

2. Incidence of Suicide Attempts

There is conflicting evidence regarding the number of suicide attempts among women alcoholics. Rimmer et al (1971) reported a high incidence of suicide attempts among his samples but

attributed this to an accompanying affective disorder.

Rathod et al (1971) reported a higher incidence of suicide attempts amongst women alcoholics but Glatt (1961) found no significant differences in the incidence between men and women.

This evidence is insufficient to draw any conclusions regarding (a) the higher incidence of suicide attempts among women alcoholics and (b) the link between suicide attempts and psychopathology. Suicide attempts have been cited as one of the many symptoms of depression (Meyer, Gross & Slater 1974) is inadequate as a single index of psychological disturbance.

3. Marital Instability

Various writers cite a high incidence of marital instability among women alcoholics as evidence of greater psychological disturbance (Schucker, 1972; Rimmer et al, 1971, 1972; Curlee, 1970).

Sclare (1970) found marital discord to be prevalent in 22 out of 50 cases of female alcoholics and 11 out of 50 of male alcoholics. He further found employment problems in 21 out of 50 men and none amongst women. In addition, he found domestic stress to be a significant precipitant in the onset of drinking ($p < .05$) among women alcoholics, and employment a significant factor among male alcoholics ($p < .05$).

These findings focus on the respective work milieu of these

men and women and distinguish between stress in the employment sphere and in the marital relationship. This distinction is often blurred for the woman by the single location of the two. Domestic stress and employment stress are both occupational stresses simply located in different spheres: in the home and out of the home. Although frustrations in the domestic realms will affect the marital relationship they are not one and the same thing. It is important that this distinction be maintained in investigating marital stress among female alcoholics. This idea is confirmed by Sclare (1970) who failed to demonstrate any significant differences in marital discord between male and female alcoholics.

Wandberg and Horn (1970) in an extensive study on drinking patterns, found certain differences between male and female alcoholics in terms of the behavioural correlates of marital instability. They found that for men, marital difficulties associated with drinking were manifested in symptoms of guilt and anxiety. Among women, however, these difficulties were manifested in a continuous drinking pattern. The striking implications of these findings lie in the idea that marital difficulties are common to both men and women alcoholics. The difference being the way they are manifested, which they found to differ for each sex.

Mulford (1977) quotes figures from the general consensus of 1960 which show that there is a higher rate of divorce and separation among both male and female alcoholics than among the general population. There is much literature on the

"alcoholic marriage" and the personality of the spouse as a factor in alcoholism (Jackson, 1962). Most of this research focuses on the male alcoholic. However, what this implies is the consequential disruptions of the marital relationship as a result of alcoholism per se. To assert that the incidence is greater among women raises certain questions.

Firstly, the point was made that a more disturbed woman presents for treatment. So the woman alcoholic may represent a more disturbed and less representative sample, unlike the male alcoholic who represents a broader spectrum of the population.

Secondly, equating marital instability with psychological disturbance is questionable. Within the context of alcoholism, the disruptions and ramifications are deeply inter-related, thus the validity of extrapolating this variable and seeing it as an index of another is questionable.

These points must be borne in mind when investigating the complex nature of both psychopathology and marital instability among female alcoholics.

3. Treatment and Prognosis Among Women Alcoholics

The difficulty in management of women alcoholics and the poor prognosis have frequently been cited as indicative of psychopathology (Pemberton, 1967; Curlee, 1971; Litman, 1975; Schuckit, IN Greenblat and Schuckit, 1976). These issues will be outlined separately.

(i) Management of the woman alcoholic: there is little research in this particular area. Pemberton (1977) found that women were more defensive and less supportive in therapy than men. This he attributes to the severity of the illness. Curlee (1971) reported that women were more likely to prefer individual to group therapy and as a result responded less effectively to group therapy. Schuckit (1970) quotes writers who take Curlee's suggestion further by suggesting that many needs of women are not catered for in the therapeutic programme. Most treatment programmes are directed towards treating problems of alcoholism among men. The more unique problems facing women are overlooked. This relates in particular to the extent to which prejudices against female alcoholics are transferred in the group therapeutic situation from male patients to female patients. This point has not been researched, but could be a real factor in group therapy. This may partially account for the fact that women do not respond so effectively in treatment (Litman, 1975; Curlee, 1971; Schuckit, 1976).

(ii) Prognosis of the female alcoholic: The literature in this area generally supports the idea of a poor prognosis among women alcoholics (Beckman, 1975; Curlee, 1971; Wilsnack, 1970). However, it must be noted that alcoholics on the whole are generally regarded to have a poor prognosis (Larkin, 1976; Mansell-Pattison, 1973).

Glatt (1961) reported a 73% improvement rate for men and

a 42% improvement rate for women in a follow-up study. Bateman, in a six month follow-up reported abstinence in 22% of women compared with 30% in men alcoholics. Pemberton (1967) also reports a better prognosis for men (40%) while women showed only a 10% improvement rate. He further recognises that the prognosis for alcoholics as a whole is poor.

These findings are in contrast to those of Schuckit and Winokur (1971) who found a good prognosis associated with women who were younger, who had started drinking at a later age and who had a shorter history of alcoholism. They further found that women who were abstinent for a longer time, were more likely to have become hospitalized as a result of suicide attempts and had less familial emotional illnesses. Bateman and Pietersen (1972) on the other hand, found that older women who had started drinking at a younger age were more likely to have been able to abstain for longer periods. They also found that intelligent women from low socio-economic groups had a better prognosis. From these studies emerge findings which indicate that prognosis appears to differ in terms of various criteria. These are age of onset, history of drinking, socio-economic class and others. These criteria appear to be rather crucial determinants in the prognosis and result of treatment. The lack of this type of differentiation may account for the conflicting findings in many studies quoted thus far. The utility of applying criteria which will differentiate

various subgroups among women alcoholics is gaining recognition (Beckman, 1975, 1976; Litman, 1975, 1976).

Findings of this nature provide the germinal point for this investigation. They lead to the realization that female alcoholics do not constitute a unitary and undifferentiated group.

Thus there is impetus for the abandonment of the assumption of homogeneity in favour of the assumption of heterogeneity. The need for this type of approach on female alcoholics in both research and practice has been recently emphasized by many writers (Beckman, 1975, 1976; Litman, 1976; Winokur, 1970, Schuckit, 1972).

THE ASSUMPTION OF HETEROGENEITY IN RESEARCH INTO ALCOHOLISM

The assumption of homogeneity long plagued research in the field of alcoholism. It essentially derived from investigating the alcoholic vis-a-vis the non-alcoholic. With regard to the female alcoholic, this approach derived from the relationship between the male and female alcoholic. The inclusion of all characteristics in one group had the tendency to both oversimplify and undermine the complexity and diversity of the problem. As a result of this, any particular characteristics were obscured in the process of "averaging out" in the unitary profile of the alcoholic, male or female. The major implication for research lay firstly in the dearth of significant findings and secondly, in the abundance of

conflicting ideas. Many of the studies quoted may be criticised on this score.

However, research based on the assumption of heterogeneity has revealed some findings of importance. Various studies applied Jellinek's criteria of gamma/delta to samples of male alcoholics but to date no such work has been done on a sample of female alcoholics.. As Jellinek's criteria are used in this study, it is considered valuable to review some of these studies.

Heterogeneity and Male Alcoholics

Prior to Jellinek's distinction between gamma and delta, Vogel (1961), investigating personality correlates among alcoholics, found a significant correlation between intraversion solitary drinking and a steady drinking pattern (indicates ^{delta} gamma) and a further correlation between extraversion, a public and a periodic drinking pattern (indicates ^{gamma} delta). Although this study is not without methodological flaws, it does nevertheless reveal an interesting correlation between drinking patterns and psychological variables of intraversion-extraversion.

Subsequent and more rigorous research carried out by Stein, Niles and Ludwig (1968) revealed significant differences between gamma and delta drinking patterns on a number of variables. Basically, they found that the gamma group had a history of childhood anti-social behaviours, were the product

of a significantly more disturbed family and were more impulsive than the delta group. Furthermore, they found that the drinker suffered more seriously, more frequently, and sooner in his drinking career from the physiological effects of drinking than the delta drinker. Finally, they found that the gamma drinker was more frequently arrested, more often without employment, and was as a result more socially visible. Further, his life was more severely disrupted by alcohol than the delta drinker who was able to maintain his life without accruing noticeable disruption.

Walton (1968), using Cattell's 16 Personality Factor Questionnaire (16 PF), Personal Illness Scale and Personality Disorder Scale (Foulds) and 2 scales which now make up the HDHQ (Foulds and Hope) found that gamma alcoholics (40%) differed from delta alcoholics (60%) in that they were more afraid of their own impulses, were more aggressive and, further, that their aggression was directed towards themselves. This, according to Phillips, (1968) is indicative of the presence of psychopathology. They were unable, however, to differentiate between the two groups on the 16 PF.

Abelsohn and Ben Arie (submitted for publication), using the Q-sort, evaluated self-acceptance and drinking patterns among male alcoholics. They found gamma to be less self-accepting than delta alcoholics. Abelsohn (1973) extended this in an investigation of the age of onset as a crucial factor in alcoholism. Using the 16 PF, HDHQ, Bene Family Relations Test, he found the early-age-of-onset subjects had a more

disturbed childhood family, were themselves more disturbed than the late-onset drinkers (HDHQ, $P < .05$) and, more important, displayed a gamma drinking pattern while the late-onset drinkers displayed a delta drinking pattern. It should be mentioned that, like Walton (1968), Abelson (1973, 1978) was not able to classify all his subjects clearly as gamma or delta as some revealed aspects of both. So he introduced an intermediate group, which were not significantly related to any of the abovementioned measures. Moreover, it should be noted that like Phillips, (1968) he failed to reveal any differences in personality profiles between the 2 groups (gamma and delta) on the 16 PF. However, the age variable emerged as a crucial factor in differentiating drinking patterns and other psychological variables.

What these studies have revealed is the value of revealing subtypes using Jellinek's gamma and delta criteria of drinking patterns. There are, however, certain limitations of this particular approach: the most basic being that this classification system is not absolute. It is a form of classification which includes some of the most common patterns of alcoholic behaviour and not all possible patterns. This is exemplified in both Abelson's and Walton's classification of an intermediate group. As these studies have shown, these criteria appear to discriminate quite successfully between different drinking patterns. However, while this nomenclature is to an extent helpful in diagnosing, it is not yet clear how useful it is in understanding the pathogenesis of treating alcoholism. Insofar as it can discriminate

and reflect basic differences between alcoholics, it is thought to be of great value, particularly in the nature of the present research. Thus as an initial step in an investigation of different groups of women alcoholics, this approach is felt to be of much value.

CLASSIFICATION OF FEMALE ALCOHOLICS

Studies which classified female alcoholics have done so using the following criteria. These are (1) socio-economic class; (2) personality parameters, (3) drinking patterns, and (4) prior diagnosis. These will be separately outlined.

1. Socio-Economic Class

Rimmer, Pitts, Reich and Winokur (1971) found significant differences on various demographic and clinical criteria between two samples of female alcoholics. These samples were drawn from two treatment centres serving two socio-economic groups: a middle-upper and a lower socio-economic group. Although the study compared male and female white and negro alcoholics only the findings of the white female will be presented, as they relate to the issue at hand.

There were striking differences between the two classes on various criteria. Firstly, the lower-class group reported a significantly high incidence of loss-of-control drinking, delirium tremens, blackouts, and other alcohol-related problems. Further,

they reported an earlier age of onset of excessive drinking, more hospitalizations, a higher incidence of suicide attempts (40% compared to 20%). Moreover, they had lost friends and employment as a result of alcohol (57% compared with 3% at $p < .001$).

Various points need to be raised in connection with these findings regarding the clinical profile of the female alcoholic.

These findings depict the lower-class woman as more disturbed than middle-class women in terms of the pattern of drinking and the medical and social complications. These characteristics clearly resemble a gamma drinking pattern in terms of LOC and greater medical and social disruptions due to alcohol. The findings are in contrast to the stereotype of greater disturbance among the middle-class female alcoholic. In fact, this study found that both lower-class women and men were equally disturbed. Moreover, the middle-class drinking pattern of the female alcoholic was less disrupted by either social or medical complications. So, in effect, the idea based on largely middle-class oriented literature of social pressures against women drinking, appears to have the converse effect on psychological vulnerability as hypothesised by Jellinek and many writers (Lisansky, 1957; Curlee, 1967; Rathod et al, 1971). For, these findings challenge the hypothesis of greater psychological disturbance as related to a low acceptance of alcoholism among middle class women. But, these findings do confirm the need to investigate psychological disturbance criteria, as social+class in itself

is a rather broad criterion to distinguish patterns and psychological correlates of alcohol abuse. Mayer and Green (1967) evaluated various criteria on prison samples of female alcoholics and reported similar findings to Rimmer. They found that socio-economic status differentiates patterns of women alcoholics and further that higher status women reported a later age of onset, a more telescoped drinking history, but did report a loss of control over alcohol.

Lisansky (1957) found differences on various criteria between a lower socio-economic group of women in a correctional institution and middle-class women who, as outpatients voluntarily attended a treatment clinic. She found a higher family history of alcoholism, a greater incidence of marital disruptions and an earlier onset of excessive drinking among the institutionalized women. These women were drawn to the attention of the law and so displayed a more disruptive style of alcohol abuse, while the outpatient group were more integrated in the community. But she recognizes that the difference in her samples represent different manifestations of alcohol abuse: to compare such diverse groups would inevitably yield different patterns.

Cramer and Blacker (1966) investigated differences within the lower socio-economic classes and found differences which were manifested in terms of drinking patterns and developmental history. They found that women from what they classified as "modest" but respectable homes (i.e. where father had a skill

and mother was engaged in a higher-order job) tended to be more socially isolated than women whose fathers were unskilled or servicemen and where mothers were domestics or factory workers.

Studies like the above reveal the need to transcend broad criteria of social class, as within each class there exist further patterns of alcohol abuse (Cramer et al, 1966). These studies clearly reveal differences between social class, but social class is not a rigorous enough criterion as it does not account for the differences between Limmer's samples outside of social class. Thus a more rigorous and heuristically valuable system of classifying female alcoholics is required.

2. Personality and Psychological Variables

Using the Minnesota Multiphasic Personality Inventory (MMPI) Mogar, Wilson and Helm (1970) identified five distinct personality types among women alcoholics. These were normal-manic, normal-depressive, hysterical, psychopathic and passive-aggressive. They further found the most frequent primary elevation was on the Paranoid Scale (Pa), which they claim suggests the extent to which women are affected by social norms. This inference is substantiated by their findings that women obtained a secondary elevation on the Psychopathic deviate scale (P_D) but these were not significant and, further, were not enough to suggest these as characteristic tendencies among women. They further attempted to correlate severity

of personality disorder with these personality profiles and found a correlation between these two scales, i.e. normal-manic and normal-depressive which were marked by hyper-femininity, masculine striving and confusion over sex roles.

However, the clinical usefulness of these findings were not demonstrated as no further correlations, i.e. to other factors in drinking, were tested. Thus, although this study revealed different personality profiles among a sample of women, the value is limited to the isolation of these findings as they were not related to aspects of alcoholism.

3. Drinking Patterns

A survey by the Connecticut Commission of Alcoholism (cited in Schuckit In Greenblatt et al, 1976), investigating drinking patterns, found two trends. There were a continuous and a non-continuous, namely bender-pattern among women alcoholics. But they failed to reveal any clinical correlations with these trends.

Schuckit (1969), using a differential criteria of a bender drinking pattern, failed to reveal any importance of such a pattern. This criterion, i.e. Jellinek's epsilon category, is least understood by Jellinek himself with regard to the psychological and pharmacological dynamics. Thus the clinical and research utility of using such a criterion is questionable and accounts for the failure to reveal any importance.

Possibly a more rigorous and well-defined criteria, such as

Jellinek's gamma, delta, may have yielded findings.

4. Prior Diagnosis

Rimmer et al (1972) differentiated patterns of alcoholism among female alcoholics using the clinical distinction of primary and secondary alcoholism. By primary alcoholism is meant the absence of any psychiatric disorder in the onset of alcoholism. Secondary alcoholism, on the other hand, refers to the presence of an accompanying psychiatric disorder which pre-exists the onset of alcoholism. In this case they found affective disorders to be the most prevalent accompanying disorder. The sample was drawn from two hospitals used in Rimmer's study (1971), but were not matched on socio-economic class.

They found that among a sample of 70, 27% i.e. 19 - presented with affective disorder. These two groups were compared on 10 demographic and "gross" clinical attributes of which 3 were statistically significant at ,05 level of probability.

The primary alcoholics were older on admission, had alcoholic problems for longer, and their age of onset was closer to the secondary alcoholic group. Suicide attempts were significantly higher among the secondary alcoholics - 68,4% than for primary - 12,8% at $P < ,05$. There were no significant differences on criteria like marital status, nor of previous hospitalization and medical consequences.

In a subsequent study (Rimmer et al) comparing both male and female primary and secondary alcoholics, these findings were confirmed among the primary and secondary women alcoholics.

Thus these criteria reveal the possibility of differentiating female alcoholics on the basis of the presence or absence of an accompanying affective disorder. However, these criteria appear to be more stringent than others such as social class but the need for more stringent criteria is evident.

The research by Stein et al (1968) and Walton and Abelsohn have convincingly demonstrated different homogenous subgroups of alcoholism using Jellinek's criteria of gamma/delta . With respect to one of the central issues in this investigation, namely the hypothesis of greater disturbance among female alcoholics, it was anticipated that an application of Jellinek's classification would accordingly differentiate degrees of psychological disturbance among a sample of female alcoholics.

RATIONALE

One of the striking features of alcoholism among women appears to be the efficacy of social sanctions against excessive drinking. This has had the effect of making the female alcoholic less visible both socially and in public treatment centres. This notion is suggested by the estimated high proportion of female alcoholics that seek private attention in favour of treatment at public institutions. It seems plausible to hypothesize that only when the drinking problem becomes unmanageable to the woman alcoholic and/or those around her that she is referred for treatment at public institutions. This implies that many women present in the late stages of the disorder. The literature suggests that the low acceptance of excessive drinking is inversely related to a high degree of psychological disturbance* (Jellinek, 1960; Lisansky, 1957; Beckman, 1975, 1976) and hence the hypothesis of greater psychological disturbance among female alcoholics.

A ramification lies in the way the female alcoholic is construed in particular by the professional who only sees a somewhat biased sample. It appears plausible to infer that since these practitioners see a supposedly more disturbed sample, this sample is assumed to be representative of the total population of female alcoholics.

* Jellinek's vulnerability-acceptance hypothesis.

A further and more crucial problem lies in the actual approach that has been used in investigating these samples. This approach has tended to investigate female alcoholics as a unitary, undifferentiated group. Moreover, this approach (homogeneity) has had the potential to obscure differences that may exist between subtypes of female alcoholics. Implicit in this is the possibility of overlooking particular symptom clusters of different subtypes of female alcoholics.

Of late, the same problems in researching male alcoholics have been dealt with in various ways. The most useful approach in both research and clinical settings has been the classification of male alcoholics using Jellinek's criteria of gamma/delta alcoholism. Various symptom clusters were found to be characteristic of gamma and delta subtypes of alcoholics. These were found to differ on the following parameters (Vogel, 1957; Stein et al, 1968; Walton, 1968; Abelsohn, 1973, 1978):

- (a) **Physiological:** the gamma groups were found to suffer sooner and more seriously from the medical complications of alcoholism than the delta group (Vogel, 1957; Stein et al, 1968).
- (b) **Psychological:** the gamma group were found to be more disturbed than the delta group (Walton, 1968; Abelsohn, 1973, 1976) and showed different personality traits (Abelsohn, 1973, 1976).

- (v) Sociological: the life styles of the gamma group were more seriously disrupted than those of the delta group (Walton, 1968).

Thus the gamma alcoholics were effectively differentiated from the delta alcoholics on Physiological, Psychological and Sociological levels. It appears that Jellinek's classifications effectively isolate certain symptom clusters which have been further related to the age of onset of excessive drinking (Abelsohn, 1973, 1976).

In the area of female alcoholism, no systematic research employing such classifications has yet been attempted. Schuckit et al (1971) distinguished between Primary and Symptomatic alcoholism. In so doing he isolated two subtypes of alcoholism, one with an accompanying disorder, and one without. Although, this approach has been useful, it fails to account for various psychological and sociological factors. It is felt that an approach which takes these aspects into account is necessary. Moreover, the more rigorous classification of Jellinek has never been used on a sample of female alcoholics.

The aim of the present study is to investigate whether this classification is diagnostically useful for female alcoholics. A secondary aim, is to compare a sample of male and female gamma and delta alcoholics on three broad measures of psychological disturbance to determine whether women alcoholics do reveal more disturbed symptomatology than men alcoholics.

EXPERIMENTAL HYPOTHESES

In the light of the foregoing, it was hypothesized that:

Female alcoholics are ^{not} generally more psychologically disturbed than male alcoholics ^{on} dimensions of neuroticism, psychoticism and personal disturbance as measured by the SSI.

Female gamma, delta and intermediate alcoholic groups differ from one another on dimensions of neuroticism, psychoticism and personal disturbance as measured by the SSI.

The female gamma alcoholic group is more psychologically disturbed than the female delta and intermediate alcoholic groups as measured on the HDHQ.

The female gamma alcoholic group has an earlier age of onset of excessive drinking than the female delta and intermediate alcoholic groups.

The personality profiles of female gamma, delta and intermediate groups differ from one another as measured by the 16 PF.

The female gamma, delta and intermediate alcoholic groups differ from one another on the discrepancies between the measured of self perception as assessed by the SD.

METHOD

2.1 DESIGN

The analysis of the data can be divided into two parts.

Part I: All 29 female subjects were subdivided into one of three groups using Walton's (1968) criteria of Jellinek's gamma/delta alcoholism. These were gamma, delta and an intermediate group. The intermediate group consisted of subjects who were not classifiable into either gamma or delta groups. They were then compared on measures of three psychological tests. There were : Test 1 - Cattell's 16 Personality Factor Questionnaire (16 PF); Test 2 - the Hostility Direction of Hostility Questionnaire (HDHQ; Test 3 - the Semantic Differential (SD). A Multivariate analysis of Variance (MANOVA) was used on Test 1 and Test 2 and a one-way Analysis of Variance was used on Test 3.

Part II: 29 male subjects were matched on age and were then subdivided into one of the three categories as outlined above using Walton's (1968) criteria of gamma and delta alcoholism. They were then compared with the female gamma delta and intermediate groups on the Symptom Sign Inventory (SSI). Using a Chi Squared (χ^2) statistical analysis the symptom clusters of these groups were compared. This design is illustrated below.

Design for Part II (29 male and 29 female subjects)

Test IV:

Groups	Gamma	Delta	Intermediate	Total
Females	10	11	8	29
Males	9	11	9	29
n =	19	22	17	58

2.2 SUBJECTS

The subjects were 29 female and 29 male alcoholic in-patients at a Specialist Alcoholic Hospital in Cape Town. This hospital serves the middle-lower socio-economic class. The subjects were admitted over the period from July 1977 to August 1978.

The criteria for subject selection of alcoholism was that developed by Feighner, Robins, Guze, Woodruff, Winokur and Munitz (1972) for specific use in Psychiatric research. A definite diagnosis of alcoholism is made when the subject manifests a minimum of symptoms in at least 3 of the 4 groups listed below. However, Group III was not applicable to female subjects as none had any police records or had been socially visible, i.e. displaying drunkenness in public.

Group I

- (i) Any indication of alcohol withdrawal symptoms, e.g. tremulousness;

- (ii) a history of medical complications, e.g. polyneuropathy;
- (iii) Alcoholic blackouts;
- (iv) At least two alcoholic benders which have lasted for 48 hours.

Group II

- (i) Subject has not been able to stop drinking when he/she wanted to;
- (ii) Subject tried to discipline and control drinking, e.g. drinking only with other people;
- (iii) Drinking before breakfast;
- (iv) Drinking non-beverage forms of alcohol, e.g. hair oil.

Group III

- (i) Arrests for drinking;
- (ii) Drinking associated work trouble;
- (iii) Drinking associated fighting.

Group IV

- (i) Subject thinks he/she drinks too much
- (ii) Family object to drinking;
- (iii) Loss of friends through drink;
- (iv) Guilt feelings from drink.

The only other criteria relevant to selection were:

- (a) Sufficient intellectual capacity to complete the test material. This was inferred from clinical observations and staff records.

(b) Brain damaged subjects were excluded.

Four subjects failed to comply with these requirements and were excluded.

Summary of some characteristics of female subjects

Summary of the mean ages of the three groups

	Gamma delta	Delta	Intermediate
Mean age	41,10	46,64	49,25
Standard deviation	11,98	13,91	9,48
Range	24-58	28-67	32-54

Summary of Marital Status of all Groups Combined

Single	3
Married	9
Separated	5
Divorced	10
Unmarried	2
Total	29

Summary of Marital Status of Gamma Group

Single	1
Married	2
Separated	1

Divorced	6
Widowed	<u>0</u>
Total	10

Summary of Marital Status of Delta Group

Singel	1
Married	5
Separated	2
Divorced	2
Widowed	<u>1</u>
Total	11

Summary of Marital Status of Intermediate Group

Single	1
Married	2
Separated	2
Divorced	2
Widowed	<u>1</u>
Total	8

Summary of Occupational Status of All Groups Combined

Professional (e.g. university qualification)	0
Semi-professional (e.g. nurse)	1
Commercial (e.g. secretary)	6
Other (e.g. sales assistant)	5
Unemployed	11
Not employed (e.g. housewife)	6

Summary of Source of Referral to Treatment of all Groups Combined

Self	5
Family/close friends	6
General practitioner	13
Through hospital body (or agency)	5

2.3 EXPERIMENTAL PROCEDURE

The procedure for each group, i.e. female and males, shall be outlined separately.

A. Procedure for Female Subjects

Each subject was seen within 4 days of admission and after detoxification. Subjects were seen during their relaxation period which is after lunch and before afternoon therapy. The experimenter (E) introduced herself as a part-time psychologist routinely interviewing female in-patients. Subjects were informed that part of the information was for research purposes. They were told that the information collected was to enable the hospital to find out more about alcoholism among women. Anonymity and confidentiality of all information was stressed.

A structured Interview Schedule (Appendix) drawn up by the E was orally administered. This elicited information on the following areas: Occupational status, Marital and drinking history, attitudes of relevant others towards drinking and

source of referral. This was followed by the SSI which is a verbally administered test.

During the same time the following day, the subjects were given the remaining 3 tests to complete. These were the 16 PF, the HDHQ and the SD. These were self-administered in the presence of the E. Some subjects required more than one day in which to complete the test material.

B. Procedure for Male Subjects

A sample of male in-patients matched on age were individually tested on the SSI by the E. The E introduced herself as a part-time psychologist routinely interviewing male patients. Subjects were told that the information was partly for research purposes. Anonymity and confidentiality was stressed.

2.4 PATTERNS OF DRINKING

Using clinical data from file material, the subjects were classified into one of three groups (gamma, delta and intermediate) using Walton's criteria of Jellinek's gamma/delta classification. These classifications were independently carried out by three members of the hospital staff. They were the Psychiatrist-in-charge, a Psychiatric Registrar and the resident Clinical Psychologist.

They were blind to each other's classifications. In 4 cases

there was disagreement in that the 3 members of staff did not reach overall agreement. In this instance, the files were re-examined by the E and the Clinical Psychologist and a final decision was taken.

Walton's criteria of gamma/delta are:

Gamma:

- (i) Increasing intake whenever drinking starts;
- (ii) Short abstinence spells between benders;
- (iii) Periodic intoxication;
- (iv) Social disorganization.

Delta Alcoholism:

- (i) Regular daily excessive intake;
- (ii) No periods of abstention;
- (iii) Control so that drunkenness and social disorganisation do not occur;
- (iv) A social milieu often approving high regular ingestion.

When subjects were not classifiable into either Gamma or Delta, they were assigned to the Intermediate group.

2.5 PSYCHOLOGICAL TESTS

2.5.1 Cattell's 16 Personality Factor Questionnaire (16 PF)

The 16 PF "is an objectively scorable test devised by basic research in Psychology to give the most complete coverage

of personality possible in a brief time" (Manuel, 1972, p.5). Derived primarily from the research and personality theory of Cattell, the 16 PF covers the basic personality traits isolated by his Factor analytic research.

Cattell derived these factors from 3 areas of observation: life histories (L-data), Questionnaires (Q-data), and objective tests (OT-data). From his research in L-data, he isolated 15 source traits using factor analysis, then after matching data on Q and L-data, he developed the main part of the 16 PF i.e. the 12 source traits and 3 secondary traits which appear to be unique to the questionnaire method (i.e. Q data).

These source traits are essentially independent. In the test the scale was constructed such that any item contributes to the score on one and only one factor.

There are three forms of the test, of which form A was used in the present research. Form A consists of 187 items each within an option of 3 possible answers, a, b, c, e.g. "Money can buy almost everything" (a) yes, (b) uncertain, (c) no". The test may be administered both in group and individual situations. Important to note is that Cattell et al (1970) designed the test items specifically for newspaper literate adults and it is therefore considered appropriate for use in the present study.

With regard to the validity, the test is adequately covered for criterion-related validity. The manual provides correlations

of the scale with many concrete performances, e.g. school achievement, whilst for construct validity, the factor analytic method itself is a criterion of validation.

With regard to the reliability of the test, Pervin (1970) notes that the scales appear to have adequate, although not specifically high split-half reliability. However, data is not given on test-retest reliability because it is assumed that low reliability may reflect characteristic fluctuation in trait rather than in poor score reliability. This is not sufficient excuse, however, and he suggests that the manual should provide statements concerning which scales reflect reliable personality characteristics as well as statistical evidence of such fluctuations.

As has been mentioned, the test is based on factor analytic research and hence embraces the assumptions attendant on such a method. Two major criticisms of factor analysis have been that it assumes a linear relationship among variables and that it assumes that factors combine additively instead of by a more complex interaction. Further, although Cattell was confident that factor analysis can be relied on to discover basic dimensions or underlying structures of personality, certain reservations have been expressed. Holt (1962) points out that if researchers start with different principles and use different variables, the observed factors differ substantially, i.e. you get out what you have put in; frequently the suggestion is made that factor analysis is useful for reducing large amounts of data to a few categories

but that one cannot assume that these categories reflect underlying structures. These criticisms in no way invalidate the utility of this test.

A major weakness of this test lies in the fact that there are no validity scores. Extensive work by Edwards (1957) and others have illustrated the operation of response sets in questionnaires. These are how defensive people are without realizing, and how some consciously fake responses to questionnaires. The 16 PF attempts to deal with such problems by encouraging the subject to be honest in the instructions and by selecting the items such that each scale has an equal number of "yes" and "no" responses contributing to the total score. In spite of this, Pervin concludes that the problems above do appear to enter into some aspects of the test and distort the psychological meanings of items involved.

This aspect is considered to be of particular importance in the nature of the study where a social desirability factor may distort the real underlying factors.

A further weakness but of less relevance to this study lies in the present inability of the 16 PF to substantiate the validity of the score as a diagnostic aid (Cattell, 70). But until this aspect is considerably improved, the test will be unable to play its full role in the psychiatric setting.

However, despite these problems the 16 PF remains an extremely useful test. Over the years an impressive body of reliability

and validity data has been collected (Raver, 1972; Bochard, 1972) and the widespread use of the test speaks for itself.

The test was included primarily on its merit of covering a wide range of personality traits. As this study is investigating correlates of alcoholism, personality traits are considered to be crucial in the assessment of alcoholism. In particular, the idea that certain forms of alcoholism are accompanied by certain trends in personality rather than a psychiatric disorder, is a crucial idea in this investigation. For a list of the traits covered by the 16 PF, see appendix

2.5.2 Hostility Direction of Hostility Questionnaire (HDHQ Foulds).

Rooted in Foulds' theory of Personality and Psychopathology, the HDHQ was designed to measure hostility and punitiveness. Foulds conceptualized psychopathology as a continuum ranging from normality through personality disorder, personal illness, psychosis to non-integrated psychosis. The distinguishing feature of this continuum is represented by an increased failure to establish or maintain mutual personal relationships. Foulds situates egocentricity and its corollary, a lack of empathy, as central to this failure and hence disorder. He considers that the more people are able to empathise with others, the more able they are to establish significant relationships and the less likely they are to resort to blaming themselves or others when under extreme stress. In this context, he proposes general punitiveness to be a valid measure of ego-centricity and hence psychopathology.

The actual test consists of 51 items drawn from the MMPI and allocated to 5 subscales - the subscales are: criticism of other (CO); projected hostility (PH); acting out hostility (AH); guilt (G) and self-criticism (SC). The sum of these constitutes a measure of hostility, whilst the first 3 measure extrapunitive and the last 2, intrapunitive. The format of the test is a true-false forced choice.

Examining the validity of the test, statistical assessment by Foulds, Caine and Creasy (1960), Philips (1968) and more recently Maize and Bell (1971) found a positive correlation between all 5 subscales which supports the idea of a general punitive factor. They further found that correlations between the 3 extrapunitive scales are higher than with the two intrapunitive scales. The correlations for the extrapunitive scales ranged from 0,462 to 0,362 and for the intrapunitive scales from 0,499 to 0,250. They inferred from this that extrapunitive scales measure something different to intrapunitive scales. They concluded that measuring the direction of hostility, extrapunitive vs. intrapunitive, would indicate the dominance of one hostility response over the other.

Foulds et al (1960), Phillips (1968) and Hope (1969) carried out studies to assess the validity of these subscales. To date, work with Psychiatric samples largely substantiates such subscale differentiation. In testing his hypothesis of increasing punitiveness ranging from normals to non-integrated psychotics, Foulds found this to hold for all

except psychopaths, who manifested the most General Hostility. He explained this in terms of a high extrapunitiveness and an unconscious facade of intrapunitiveness.

Moreover, work by Phillips (1968, 1970) has provided extensive normative data on groups of normals and neurotics. He found a disparity between his Scottish and English samples, the former showing a higher hostility.

Work by Phillips (1969) and Mayo and Balo (1971) emphasize the idea of scoring extrapunitiveness and intrapunitiveness separately rather than combining them in a Direction of Hostility measure. They found that normals tended to score lower on intrapunitiveness, than intrapunitiveness, and that neurotics (Caine, IN Foulds, 1965) and depressives (Mayo, 1967) show a decrease in intrapunitiveness with successful treatment. Thus they conclude that intrapunitiveness should be "conceptualized as an index of personal disturbance manifested primarily in the form of self blame and psychiatric symptomatology". Extrapunitiveness, on the other hand, is "indicative of disturbance less related to psychiatric symptomatology" (Philip, 1969, p.285). This separation is used in the present study.

Assessment of the reliability has taken the form of test-retest correlations. Caine (1965) found correlations of hostility of 0,75 and a correlation of Direction of Hostility of 0,51.

The HDHQ has been used in alcoholic research previously (Walton, 1968; Abelson, 1973, 1978) but never on a sample of female alcoholics.

The inclusion of a test of hostility is two-fold:

- (a) Hostility was considered to be a valuable component as a dynamic measure of psychological disturbance in this study.
- (b) The relation of hostility to alcoholism has long been cited as aetiologically important (Menninger, p.38). In this context the test was included to provide a measure of psychopathology from an aetiological point of view.

2.5.3 Symptom Sign Inventory

The Symptom Sign Inventory (SSI) was "compiled as an aid to the differential diagnosis of the mentally ill" (Manual, 1968, p.5). It is an inventory or list of symptoms and signs for the categorization of persons with respect to the nature, presence or absence of psychopathology. This, unlike all the other tests in this battery, is essentially a clinical rather than a research tool.

The test consists of eighty items which were drawn up by Foulds, but were derived from psychiatric texts, clinical experience and the MMPI. Each item "had to be precise enough

to define a symptom or sign, but sufficiently general to cover many manifestations of that symptom or sign (Hope, 1968, p.5).

Eight diagnostic classes within the field of personal or mental illness were distinguished; four neurotic and four psychotic. The names of the classes are diagnoses which are commonly employed by psychiatrists. The categories are: anxiety state (Ax), neurotic depression (Dp), Mania (M), paranoid states (PA), obsessional (Ob), non-paranoid schizophrenia (Sc), hysteria (Hy) and melancholia (Me).

The SSI is verbally administered and responses may require some interpretation. Like the HDHQ, the levels of classification derive from Fould's continuum of personal illness. This ranges from normality through personality disorders, neurosis, psychosis to non-integrated psychosis. It is along this continuum that differentiation between various classes exist.

Despite some conceptual problems surrounding the meaning of personality disorders, a scale for purely personality disorders was devised after comparison with 3 neurotic groups and 2 psychotic groups (Foulds, p.67). The criterion applied was a 50% or greater frequency of item accuracy for personality disorders as compared to the average scores of the other 5 groups. Exclusion of the 8-item character disorder scale resulted in the sample of character disorders falling mostly into Psychotic groups. Foulds maintains that character

disorders can be identified by consistent invalid responses to certain questions. But this scale is not included in the manual and it seems that Foulds and Hope place little faith in the above scale.

The development of the other levels of differentiation was based on the SSI responses of patients in different hospitals over a number of years.

The personal illness scale (personal disturbance) consists of items which distinguished at least 7 male and female diagnostic classes from the normal sample. A unit normal deviate of 2,3263 was used as the criterion of discrimination. Frequency distributions of the different groups indicate that only 2 of the normal subjects scored more than 2. This scale has been published as a separate questionnaire for use as a screening device. The postulated necessary condition for personal illness is disproportionateness of effect. The items in the scale appear consonant with this condition.

The psychotic versus neurotic scale consists of items scored significantly more frequently by diagnosed psychotics than neurotics. Once again only 2 normals scored greater than 2. Only 2 of the 40 neurotic indicators were given more frequently by neurotics than psychotics. Almost all the psychotic items are delusional and hence consonant with the pre-condition for diagnosis of psychosis (Foulds, 1967).

The non-integrated psychotics vs. integrated psychotic scale

was constructed from items scored more frequently by non-paranoid schizophrenics than all other psychotics. However, the base rates in the sample tested are considered inadequate and the scale is to be regarded of theoretical interest only.

Reliability of the inter-groups has been carried out. Distinctions between entegrated psychosis were more reliable than within the neurotic group. Further, distinctions between neurotic and psychotic groups were more difficult but were rooted in the presence of delusional ideas in the former.

The basic assumption underlying the method of deriving discriminators is that diagnostic groups are homogenous.

Each pair of the diagnostic group (A vs. DN) were examined after forming 2 x 2 contingency tables for each of the 80 items. A correlation coefficient was calculated and the item weighted +1 or -1 if the correlation differed significantly ($p < .05$) from a zero correlation.

In summary, the SSI is a standardized form of objective assessment for psychopathology. It lends itself to replicative research and the scales to computer analysis. Furthermore, the intercorrelation between symptoms or syndromes may be more precisely assessed.

Although emphasis may be laid on relevant aspects of the items, this does not preclude faking. However, the disadvantages are than ^{that} faking is easy. Misclassification, especially in monosymptomatic cases, may result in the fact that symptoms

are equally weighted. Similarly, severity of disturbance is not necessarily indicated by the number of symptoms. It must be remembered that the SSI is a discriminatory instrument - "its a pair of scissors rather than a yardstick" (Hope, 1972, p.185). Finally, phasic illnesses (e.g. manic-depressive) may be more difficult to identify without background information. It is suggested that observer rating scales and other objective measures be used in conjunction with the SSI to overcome their limitations (Foulds) but this refers more to the clinical use of the test.

The SSI has been used together with the HDHQ to distinguish between personality attributes and the symptoms and signs of mental illness.

In the light of the above, the test was included to provide an objective diagnostic tool.

It was selected in favour of other objective diagnostic tests such as the Brief Psychiatric Rating Scale (BPRS). This was because the SSI gives a more direct diagnosis of psychological disturbance. Furthermore, the administration of the BPRS requires a skilled Psychometrist whereas the SSI does not require such skill.

2.5.4 The Semantic Differential (Osgood)

The Semantic Differential (DS) is a rating procedure developed by Osgood for the measurement of meaning. It was developed

out of research on synesthesia. This basically refers to the association of experiences with certain stimuli, and the idea that the presentation of the stimuli will elicit the particular responses, i.e. experience. This underlies the SD and is based on learning theory paradigm of "stimulus-response".

The SD consists of a 7 point scale terminating in bi-polar adjectives. The weighting ranges from -3 to +3. The adjectives vary according to the concept being measured. Thus there are no standard concepts and the scales vary according to the nature of research connotative factors which are independent. These are (a) activity such as fast - slow, active-passive; (b) evaluative such as hard - soft, wide-smooth; and potency such as strong - weak, light - heavy. The importance of these factors was confirmed in factor analytic research (Osgood and Suci, 1955). They found that the evaluative factor constituted the largest portion of the variance, but all three were equally important in the measurement of meaning.

The procedure requires that the subject rate each concept on the entire set of scales, usually 20. The rating thus requires the subject to judge the position of a concept in the semantic space between the pairs of adjectives. Each of the three connotative factors must be present so the average scale position on each of these dimensions locates it as a point in the semantic space.

Osgood and Suci (1955) have proposed a "D" Stastic as a measure

of the degree of meaningful similarity between any 2 concepts. The "D" statistic calculates the difference between 2 profiles by subtracting and summing the values on each scale of the two concepts being measured. The formula shows this clearly

$$D_{ij} = \sqrt{\sum (d_{i-1})^2}$$

The "D" yields a value which represents the difference in the semantic space of two concepts based on the bi-polar scales. The scale values are treated as co-ordinates of a point representing the concept defined by the scales. Thus the degree of similarity between a pair of concepts is inversely proportional to the distance between them.

Much research on the validation of the S-D technique has been done in various spheres using various scales.

Deese (in Osgood et al, 1969), investigating the association structure of some adjectives confirms the utility of polar adjectives in the SD technique. But the utility of using the SD depends on the adjectives used, as some don't always make the best possible anchors of meaning.

Salazar, () on the other hand, found the reliability of the SD as a tapping technique to be high, i.e. 0,96, and 0,95 with a reliability coefficient of one week interval of 0,87.

The SD has been used in research from social to clinical

psychology and found to be a useful technique in meaning. ?
A case study by Osgood and Lauria found SD profiles to correspond with clinical profiles. The test-retest reliabilities of three profiles were ,82, ,90, ,65 and ,89, ,89 and ,95 which indicate a high reliability.

The SD appears to be a reliable measure provided the scale is relevant to the concept being measured (Osgood et al, 1969). It appears to be more useful than correlational statistics in that it actually calculated the degree of the difference between the concepts. A correlation merely calculates the relationship between two profiles as negative (low) through to positive (high), but it does not give a measure of the actual distance between the profiles.

The SD was included to ascertain the way the female alcoholic construes she is perceived by others (in particular family and society) in relation to her own and ideal self-perception. ?
A measure of this would indicate the extent to which social disapproval enters into the self-perception of the female alcoholic.

Four profiles measured were as follows:

- (a) Rate as you see yourself;
- (b) Rate as you think your friends and family would rate you;
- (c) Rate as you think society would rate you as a woman with a drinking problem;
- (d) Rate as you would like yourself to be.

See appendix for full example.

RESULTS

3.1 THE 16 PERSONALITY FACTOR QUESTIONNAIRE: A COMPARISON OF THE PERSONALITY TRAITS OF GAMMA, DELTA AND INTER-MEDIATE ALCOHOLICS

The constraints of the statistical technique employed, required that 3 separate multivariate analyses of variance (MANOVA) be carried out. The 16 factors were thus divided into 2 groups of 6 factors and one group of 4. Grouping was done on an a priori conceptual basis.

MANOVA I

Factors:

- A - Reserved-Outgoing (Sezothymia-Affectothymia)
- B - Dull-Bright (Low Intelligence-High Intelligence)
- L - Trusting-Suspicious (Alaxia-Protension)
- M - Practical-Imaginative (Praxemia-Autia)
- N - Forthright-Astute (Artlessness-Shrewdness)
- I - Tough-minded-Tender-minded (Harria-Premsia)

TABLE 1 : Means and standard deviations for Gamma, Delta and Intermediate Groups for Factors A, B, L, M, N, I.

Factors	Gamma		Delta		Intermediate	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
A - Sizothymia vs Affectothymia	5,9	1,97	4,73	2	4,63	1,50
B - Low Intelligence vs High Intelligence	5,5	1,78	5,09	,94	5	1,85
L - Alaxia vs Pro-tension	7	2,26	6,55	1,37	6,13	2,23
M - Praxemia vs Autia	5,2	1,87	4,64	1,96	5,5	2,56
N - Artlessness vs Shrewdness	5,7	1,77	7,73	2,10	6,25	3,33
I - Harria vs Premsia	6,3	1,83	6,18	1,60	6,63	1,69

Key: \bar{X} = mean
SD = Standard deviation

TABLE 2 Total means and pooled standard deviation of all groups

Factor	Total means	Pooled standard deviation
A	5,10	1,63
B	5,20	1,53
L	6,59	1,96
M	5,07	2,11
N	6,62	2,40
I	6,34	1,70

TABLE 3: Total, treatment and error sums of squares of factors A, B, L, M, N, I.

Factors		A	B	L	M	N	I
A	Total SS	78,69	10,38	6,24	2,79	-51,86	27,97
	Treatment SS	9,73	3,61	5,23	1,18	-10,49	- 7,6
	Error SS	68,96	6,77	1,01	1,61	-41,37	28,72
B	Total SS	10,38	62,76	-26,52	22,59	16,28	32,93
	Treatment SS	3,61	1,35	2,03	0,22	- 3,50	- 0,39
	Error SS	6,77	61,41	-28,55	22,36	19,77	33,32
L	Total SS	6,24	-26,52	103,03	-15,17	-26,55	-15,86
	Treatment SS	5,23	2,03	3,43	- 0,85	- 2,94	- 1,15
	Error SS	1,01	-28,55	99,60	-14,32	-23,61	-14,72
M	Total SS	2,79	22,59	-15,17	119,86	-29,24	43,31
	Treatment SS	1,18	0,22	- 0,85	3,72	- 7,75	1,68
	Error SS	1,61	22,36	-14,32	116,15	-21,50	41,63
N	Total SS	-51,86	16,28	-26,55	-29,24	72,83	-28,21
	Treatment SS	-10,49	- 3,50	- 2,94	- 7,75	23,05	- 2,40
	Error SS	-41,37	19,77	-23,61	-21,50	149,78	-25,80
I	Total SS	27,97	32,93	-15,86	43,31	-28,21	76,55
	Treatment SS	- 0,76	- 0,39	- 1,15	1,68	- 2,40	0,94
	Error SS	28,72	33,32	-14,72	4,6	-25,80	75,61

Key: SS = sum of squares.

TABLE 4

MANOVA F ratio	First degree of freedom	Second degree of freedom
0,80*	12	42

* $p > 0,05$

The Manova F ratio was not significant at 0,05 level of probability. Thus no further statistical breakdown of individual variables was necessary.

MANOVA II

Factors:

- C - Emotionally unstable - Emotionally stable (Low ego strength - High ego strength)
- E - Humble - Assertive (Submissiveness - Dominance)
- F - Sober - Happy-go-lucky (Desurgency-Surgency)
- G - Expedient - Conscientious (Weaker superego strength - stronger superego strength)
- H - Shy - Venturesome (Threctia - Parmia)
- O - Self-assured - Apprehensive (Untroubled adequacy - Guilt proneness)

TABLE 5: Means and standard deviations for Gamma, Delta and Intermediate Groups for Factors C, E, F, G, H, O.

Factors	Gamma		Delta		Intermediate	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
C - Low ego strength vs High ego strength	2,8	1,81	3,36	1,63	3,88	1,95
E - Submissiveness vs dominance	4,9	2,38	4,27	1,35	4,75	1,28
F - Desurgency vs surgency	4,6	1,90	2,73	1,68	4,13	2,53
G - Weaker superego strength vs Stronger superego strength	4,2	2,57	6,45	1,70	4,5	1,69
H - Threctia vs Parmia	3,9	2,13	3,82	2,14	4,5	2,14
O - Untroubled adequacy vs guilt proneness	8	1,94	6,99	1,76	7,13	1,95

Key \bar{X} = mean
SD = standard deviation

TABLE 6: Total means and pooled standard deviations for all three groups

Factor	Total means	Pooled Std. Dev.
C	3,31	1,79
E	4,62	1,76
F	4,14	2,01
G	5,14	2,04
H	4,03	2,14
O	7,34	1,88

TABLE 7: Total, treatment and error sums of square of factors C, E, F, G, H, O.

Factors		C	E	F	G	H	O
C	Total SS	88,21	17,41	47,76	36,76	50,69	-43,10
	Treatment SS	5,19	-1,05	-2,66	2,68	2,66	-4,59
	Error SS	83,02	18,46	50,42	34,08	48,03	-38,51
E	Total SS	17,41	82,83	34,52	11,52	51,38	-18,21
	Treatment SS	-1,05	2,25	2,85	-8,32	0,93	3,27
	Error	18,46	80,58	31,67	19,84	50,44	-21,48
F	Total SS	47,76	34,52	109,44	-3,55	63,86	-6,38
	Treatment SS	-2,66	2,85	3,99	-10,21	0,31	5,02
	Error SS	50,42	31,67	105,46	6,66	63,55	-11,40
G	Total SS	36,76	11,52	-3,55	139,45	29,86	-65,38
	Treatment SS	2,68	-8,32	-10,21	31,12	-4,25	-11,33
	Error SS	34,08	19,84	6,66	108,33	34,11	-54,05
H	Total SS	50,69	51,38	63,86	29,86	120,97	-48,35
	Treatment SS	2,66	0,93	0,31	-4,25	2,43	-0,66
	Error SS	48,03	50,44	63,55	34,11	118,54	-47,68
O	Total SS	-43,10	-18,21	-6,38	-65,38	-48,35	98,55
	Treatment SS	-4,59	3,27	5,02	-11,33	-0,66	6,77
	Error SS	-38,51	-21,48	-11,40	-54,05	-47,68	91,78

Key: SS = sum of squares.

TABLE 8

Manova F ratio	First degree of freedom	Second Degree of freedom
0,96 *	12	42

* $p > 0,05$

The Manova F ratio was not significant at 0,05 level of probability. Thus no further statistical breakdown of individual variable was necessary

MANOVA III

Factors:

- Q₁ - Conservative - Experimenting (Conservatism of temperament - Radicalism)
- Q₂ - Group dependent - self-sufficient (Group adherence - self-sufficiency)
- Q₃ - Undisciplined self-conflict - Controlled (Low self-sentiment - High strength of self-sentiment)
- Q₄ - Relaxed - Tense (Low ergic tension - High ergic tension)

TABLE 9: Means and standard deviations for Gamma, Delta and Intermediate groups

Factors	Gamma		Delta		Intermediate	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
Q ₁ -Conservativism of temperament vs radicalism	7	1,63	5,99	1,22	5,88	2,30
Q ₂ -Group adherence vs self-sufficiency	6,3	2,79	5,90	1,70	7,63	2,20
Q ₃ -Low self sentiment vs High strength of self sentiment	4,9	2,02	5,45	1,29	5,38	1,85
Q ₄ -Low ergic tension vs High ergic tension	7,7	1,57	6,45	2,73	6,88	1,55

Key \bar{X} = mean
SD = standard deviation

TABLE 10: Total means and pooled standard deviations for all 3 groups

Factor	Total means	Pooled Std. Dev.
Q ₁	5,97	1,71
Q ₂	6,52	2,26
Q ₃	5,24	1,73
Q ₄	7	2,09

TABLE 11: Total, treatment and error sum of squares for factors Q_1, Q_2, Q_3, Q_4 .

Factors		Q_1	Q_2	Q_3	Q_4
Q_1	Total SS	94,97	23,52	17,24	-1,00
	Treatment SS	19,18	2,80	-5,68	12,58
	Error SS	75,78	20,72	22,95	-13,58
Q_2	Total SS	23,52	147,24	-0,62	12,00
	Treatment SS	2,80	14,36	0,50	1,62
	Error SS	20,72	132,88	-1,12	10,98
Q_3	Total SS	17,24	-0,62	79,31	-49
	Treatment SS	-5,68	0,50	1,80	-3,80
	Error SS	22,92	-1,12	77,50	-45,19
Q_4	Total SS	-1,00	12,06	-49	122
	Treatment SS	12,58	1,62	-3,80	8,30
	Error SS	-13,58	10,98	-45,19	113,70

Key: SS = sum of squares

TABLE 12

Manova F ratio	First degree of freedom	Second degree of freedom
1,46 *	8	46

* $p > .05$

The manova F ratio was not significant at 0,05 level of probability. Thus no further statistical breakdown into individual variables was necessary.

Thus there were no significant differences between the 3 groups of any of the personality factors measured by the 16 PF.

3.2 A COMPARISON OF THE GAMMA, DELTA AND INTERMEDIATE GROUPS ON 4 VARIABLES OF HOSTILITY AS MEASURED BY THE HOSTILITY DIRECTION OF HOSTILITY QUESTIONNAIRE (HDHQ)

The three groups were compared on 4 measures of the HDHQ using a one way multivariate analysis of variance (MANOVA). The 4 measures derived from HDHQ are: Total hostility, Direction of Hostility, Extrapunitiveness and Intrapunitiveness.

TABLE 13: Means and standard deviations of Gamma, Delta and Intermediate groups.

Hostility measures	Gamma		Delta		Intermediate	
	X	SD	X	SD	X	SD
Total Hostility	28,8	4,83	20,09	6,61	24,62	6,70
Direction of Hostility	4,5	5,28	8,27	4,03	7	6,80
Extrapunitiveness	15,8	4,54	9	3,71	12,63	6,00
Intrapunitiveness	13,1	1,52	10,36	2,94	12	2,78

Key \bar{X} = mean
SD = standard deviation

TABLE 14: Total means and pooled standard deviations of all groups

Hostility Measures	Total Means	Pooled standard deviations
Total Hostility	24,34	6,08
Direction of Hostility	6,62	5,32
Extrapunitiveness	12,34	4,70
Intrapunitiveness	11,76	2,50

TABLE 15: Total, Treatment and error sum of squares on total hostility, direction of hostility, extrapunitiveness and intrapunitiveness.

		Total Host.	Direc. of Host.	Extra-punit.	Intra-punit.
Total Hostility	Total SS	135,86	-437,21	p60,55	369,41
	Treatment SS	389,17	-170,93	311,08	125,58
	Error SS	960,38	-226,27	649,48	243,84
Direction of Hostility	Total SS	-437,21	812,83	-580,21	117,35
	Treatment SS	-170,93	76,15	-133,12	-53,06
	Error SS	-266,27	736,68	-447	170,41
Extrapunitiveness	Total SS	960,55	-580,21	818,55	160,41
	Treatment SS	311,08	-133,21	243,08	98,21
	Error SS	649,48	-447	575,48	62,20
Intrapunitiveness	Total SS	369,41	117,35	160,41	201,31
	Treatment SS	125,58	-53,06	98,21	39,86
	Error SS	243,84	170,41	62,20	161,45

Key: SS = sum of squares.

TABLE 16

Manova F ratio	First degree of freedom	Second degree of freedom
2,44*	8	46

*($p < .05$)

Since the overall manova F ratio is significant ($p < .05$) a Hotellings T^2 for independent samples was carried out to establish which of the 3 groups differed from each other on the 4 variables.

Hotellings T^2 for Independent Samples

TABLE 17 Means and standard deviations for gamma and delta groups on 4 measures of HDHQ.

Hostility	Gamma		Delta	
	\bar{X}	SD	\bar{X}	SD
Total Hostility	28,8	4,83	20,09	6,61
Direction of Hostility	4,5	5,28	8,27	4,03
Extrapuni-tiveness	15,8	4,54	9	3,71
Intrapuni-tiveness	13,1	1,52	10,36	2,94

TABLE 18: Vector of mean differences and standard errors.

	Total Hostility	Direction of Hostility	Extrapunitive-ness	Intrapunitive-ness
\bar{X}	8,71	-3,77	6,8	2,74
SE	1,27	1,61	,90	,52

Key: \bar{X} = mean
 SE = standard error

TABLE 19: Overall correlation for gamma and delta groups

	Total Hostility	Direction of Hostility	Extrapuni-tiveness	Intrapuni-tiveness
Total Hostility	1000			
Direction of Host.	-237	1000		
Extrapuni-tiveness	861	-616	1000	
Intrapuni-tiveness	705	439	312	1000

$$T^2 = 25,06$$

$$F = 5,28^*$$

$$DF = 4,16$$

$$* (p < ,01)$$

The T^2 was significant at $P < ,01$ (one-tailed test). To ascertain which of the variables discriminated between the two groups (gamma and delta) t^2 statistics were calculated for each of the 4 DV's

$$t_2^2 = 47,05^*$$

$$t_2 = 5,48$$

$$t = 57,12^*$$

$$t_4 = 27,77^*$$

* ($p < ,0,1$) (one tailed test)

TABLE 20: Means and standard deviations for gamma and intermediate groups on 4 measures of hostility.

	Gamma		Intermediate	
	\bar{X}	SD	\bar{X}	SD
Total Hostility	28,8	4,83	24,63	6,70
Direction of Hostility	4,5	5,28	7	6,80
Extrapunitiveness	15,8	4,54	12,63	6,00
Intrapunitiveness	13,1	1,52	12	2,78

* Correlation between variables reported in full in Sppendix.

TABLE 21: Vector of mean differences and standard error.

Total Hostility	Direction of Hostility	Extrapunitiveness	Intrapunitiveness
4,175	-2,5	2,28	1,1
1,34	1,41	1,25	-5,1

TABLE 22: Overall correlation for gamma and intermediate groups

Correlations (X 1000)

	Total Hostility	Direction of Hostility	Extrapunitiveness	Intrapunitiveness
Total Hostility	1000			
Direction of Hostility	-532	1000		
Extrapunitiveness	848	-728	1000	
Intrapunitiveness	385	509	6	1000

$$T^2 = 4,84^*$$

$$F = 98$$

$$DF = 4, 13$$

* ($p > ,05$)

Since T^2 was not significant, no further breakdown on the 4 dependent variables was necessary. It is concluded that on these variables, the gamma and intermediate groups do not differ from each other.

TABLE 23: Means and standard deviations for delta and intermediate groups on 4 measures of the HDHQ.

	Delta		Intermediate	
	\bar{X}	SD	\bar{X}	SD
Total Hostility	20,09	6,61	24,63	6,70
Direction of Hostility	8,27	4,03	7	6,80
Extrapunitiveness	9	3,71	12,63	6,00
Intrapunitiveness	10,36	2,94	12	2,78

Correlations between variables reported in full in Appendix.

TABLE 24: Vector of mean differences and standard errors.

	Total Hostility	Direction of Hostility	Extrapunitiveness	Intrapunitiveness
X	-4,53	1,27	-3,62	-1,64
SE.	1,52	,45	1,70	,66

TABLE 25: Overall correlations for Delta and Intermediate groups.

Correlation (X 1000)

	Total Hostility	Direction of Hostility	Extrapunitiveness	Intrapunitiveness
Total Hostility	1000			
Direction of Hostility	1751	1000		
Extrapunitiveness	857	-1714	1000	
Intrapunitiveness	695	1484	282	1000

$$T^2 = 7,33^*$$

$$F = 1,51$$

$$DF = 4 \quad 14$$

$$*(p > ,05)$$

The Hotellings T^2 only revealed significant differences between gamma and delta groups on variables of Total Hostility, Extrapunitiveness, Intrapunitiveness.

3.3 A COMPARISON OF GAMMA, DELTA AND INTERMEDIATE GROUPS ON 4 PROFILES OF THE SEMANTIC DIFFERENTIAL (SD)

Four profiles were drawn up for use with the SD. These deal with the subject's own perception of:

- (a) Self
- (b) Significant others perception of self
- (c) Society's perception of self
- (d) Ideal self.

In accordance with Osgood's theoretical basis of the SD, 6 discrepancies between the four concepts were calculated using the standard D statistic*. These discrepancies were:

1. Real self perception vs. significant others perception of self (AB)
2. Real self perception vs. society's perception of self (AC)
3. Real self perception vs. ideal self perception (AD)
4. Significant others perception of self vs. society's perception of self (BC)
5. Significant others perception of self vs. ideal self (BD)
6. Society's perception of self vs. ideal self (CD).

The 3 groups, gamma, delta and intermediate, were compared on these discrepancies using 6 one-way analyses of variance.

$$* D_{il} = \sqrt{\sum (d_{i-L})^2}$$

TABLE 26: Means and standard deviations for gamma, delta and intermediate on comparison AB.

	Gamma	Delta	Intermediate
\bar{X}	8,40	6,36	9,16
SD	3,63	3,48	3,75

TABLE 27: Anova summary of G, D, I on comparison AB

Source	SS	DF	MS	F ratio
A	41,03	2	23,80	1,27*
Error	337,80	26	16,70	

* ($p > .05$.) Therefore on this variable (comparison AB), there are no differences between gamma, delta and intermediate groups.

TABLE 28: Means and standard deviations for gamma, delta and intermediate groups on comparison AC

	Gamma	Delta	Intermediate
\bar{X}	9,05	6,84	9,84
SD	4,41	3,54	5,14

TABLE 29: Anova summary of G, D, and I on comparison AC

Source	SS	DF	MS	F ratio
A	4,76	2	23,80	1,27*
Error	486,05	26	18,70	

* $(p > ,05)$ Therefore on this variable (comparison AC) there are no differences between Gamma, Delta and Intermediate groups.

Key: SS = Sum of squares
 DF = Degree of freedom
 MS = mean squares within

TABLE 30: Means and standard deviations for Gamma, Delta and Intermediate Groups on comparison AD.

	Gamma	Delta	Intermediate
\bar{X}	13,06	10,61	12,42
SD	3,82	3,08	5,42

TABLE 31: Anova summary of Gamma, Delta and Intermediate on comparison AD.

Source	SS	DF	MS	F ratio
A	33,86	2	16,93	1,01*
Error	435,72	26	16,76	

* ($p > ,05.$) Therefore on this variable (comparison AD) there are no differences between Gamma, Delta and Intermediate groups.

TABLE 32: Means and standard deviations for Gamma, Delta and Intermediate groups on comparison BC.

	Gamma	Delta	Intermediate
\bar{X}	7,77	5,38	7,70
SD	5,97	2,37	2,54

TABLE 33: Anova summary of Gamma, Delta and Intermediate groups on comparison BC

Source	SS	DF	MS	F ratio
A	39,94	2	18,97	1,17*
Error	422,39	26	16,24	

* ($p > .05$). Therefore on this variable (comparison BC) there are no differences between Gamma, Delta and Intermediate groups.

TABLE 34: Means and standard deviations of Gamma, Delta and Intermediate groups on comparison BD.

	Gamma	Delta	Intermediate
\bar{X}	12,92	9,14	9,25
SD	5,91	3,47	4,08

TABLE 35: Anova summary for Gamma, Delta and Intermediate groups on comparison BD.

Source	SS	DF	MS	F ratio
A	91,22	2	46,61	2,15 *
Error	552,0	26	21,23	

* ($p > ,05.$) Therefore on this variable (comparison BD) there are no differences between Gamma, Delta and Intermediate groups.

TABLE 36: Means and standard deviations of Gamma, Delta and Intermediate groups on comparison CD.

	Gamma	Delta	Intermediate
\bar{X}	9,91	7,75	8,24
SD	5,23	2,39	5,29

Table 37: Anova summaries for Gamma, Delta and Intermediate groups on comparison CD.

Source	SS	DF	MS	F ratio
A	26,08	2	13,04	* ,68
Error	499,31	26	19,20	

* ($p > 05$) Therefore on this variable (comparison CD) there are no significant differences between Gamma, Delta and Intermediate groups.

Thus there were no significant differences on the 4 profiles between the 3 groups as measured by the SD.

3.4 A COMPARISON OF THE DISTRIBUTION OF THREE PSYCHIATRIC SYMPTOM CLUSTERS IN MALES AND FEMALES OF THE GAMMA, DELTA AND INTERMEDIATE GROUPS

The three symptom clusters investigated were Neurotic, Psychotic and Personality disordered as measured by the Symptom Sign Inventory (SSI). Comparisons were carried out using a 3-way Chi squared (X^2) analysis with fixed marginal frequencies as presented in Winer (1977, p.858).

TABLE 38: Frequencies and expected frequencies of Symptom clusters in female and male Gamma, Delta and Intermediate groups.

Females

	Gamma	Delta	Intermediate	
Neurotic	4 4,14	4 4,55	5 3,31	13
Psychotic	3 2,24	1 2,47	1 1,79	5
Personality Disordered	3 3,62	6 3,98	2 2,90	11
	10	11	8	29

Males

	Gamma	Delta	Intermediate	
Neurotic	3 3,72	4 4,55	4 3,72	11
Psychotic	4 2,02	2 2,47	2 2,02	8
Personality Disordered	2 3,86	5 3,98	3 3,26	10
	9	11	9	29

TABLE 29: Chi Squared Summary table for male and female gamma delta and intermediate groups on the three dimensions of the SSI.

Source	χ^2	df
Total	6,85	10
AC (groups x symptom)	3,315	4
BC (Sex x symptom)	,91	2
ABC (groups x sex x symptom)	,63	4

$p > ,05$

Thus there were no differences in the distribution of symptom clusters between male and female Gamma, Delta and Intermediate groups.

3.5 A COMPARISON OF THE AGE OF ONSET OF EXCESSIVE DRINKING BETWEEN GAMMA, DELTA AND INTERMEDIATE GROUPS

TABLE 40: Means and standard deviations of age of onset of excessive drinking of Gamma, Delta and Intermediate groups.

	Gamma	Delta	Intermediate
\bar{X}	27,9	40,82	38,38
SD	4,58	12,09	12,05

TABLE 41: Anova summary of age of onset of Gamma, Delta and Intermediate groups

Source	SS	DF	MS	F ratio
A	953,80	2	476,90	4,65*
Error	266,64	26	102,55	

* ($p < ,05$) (one-tailed test)

F ratio is significant at probability level $< ,05$. Thus there is a significant difference in the age of onset of excessive drinking between the Gamma, Delta and Intermediate groups. In order to find out where the difference lies a multiple comparison was carried out using a Tukey's HSD statistic.

Tukey's Comparison between Gamma and Delta Groups

Tukey's HSD = 4,64* DF = 3,26

(P < ,01)

Tukey's comparison between Delta and Intermediate Groups

Tukey's HSD = 2,27 DF = 3, 26

(P > ,05)

Tukey's Comparison between Gamma and Intermediate Groups

Tukey's HSD = 2,03 DF = 3, 26

(P > ,05)

Thus the Tukey's HSD statistic revealed that the overall significant F ratio is accounted for by a significant difference between gamma and delta groups.

DISCUSSION

INTERPRETATION OF PSYCHOLOGICAL TESTS

Cattell's 16 Personality Factor Questionnaire:

The results on the 16 PF (Tables 4, 8, 12) failed to show any significant cluster of personality traits between the three subgroups. These are in contrast to Abelson (1973) who found significant differences between gamma and delta on four factors. These factors were lower-higher ego strength (C), weaker-stronger ego strength (G), untroubled adequacy-guilt proneness (O) and low-high strength of self-sentiment (Q₃) as measured on the 16 PF. Using the MMPI, Mogar et al (1970) found personality subtypes of female alcoholics.

This absence of significant differences may be due to the large within group variability which, as a result of the small sample size, could have masked any intergroup variability. On the other hand, it could be that the three groups do not, in fact, differ on the personality factors measured by the 16 PF. However, with respect to the former, certain issues arising need to be considered.

Primarily, the absence of a built-in lie ^{or} of faking scale made it difficult to differentiate distorted from real personality profiles. Furthermore, the chances of such distortion are high when considering the social desirability factor in relation to the social unacceptability of alcoholism among

women. The general format of the test which has negative as well as positive and neutral options, increases the chance of such distortion in that subjects may rate positive or neutral alternatives in an attempt to portray themselves in a favourable light. All self-rating inventories tend to suffer from this problem of social desirability. In working with female alcoholics, this problem is of particular relevance.

Another problem with such inventories is the problem of response sets. This problem was mentioned in the method. Attempts were made to control for this by asking subjects who appeared to exhibit response sets to check these responses. This may not have been entirely successful.

However, in spite of the fact that no significant results were found between the three groups, this does not deny the possibility of subtypes amongst female alcoholics (Beckman, 1975, 1976). Considering the above, the failure to reveal significance may have been a result of the methodological considerations, or it may simply be that the three groups did not in fact differ on the traits measured by the 16 PF.

Hostility Direction of Hostility Questionnaire

There was a significant difference between the gamma group and the delta group on measures of Total Hostility ($p < .01$) and Extrapunitiveness ($p < .01$) and Intrapunitiveness ($p < .05$), the gamma group scoring higher on all three.

The Total Hostility score derived from the HDHQ has been used as an index of increased inability to maintain or establish mutual personal relationships, and hence greater psychological disturbance (Foulds). This finding supports the hypothesis of greater disturbance among gamma alcoholics (Abelsohn, 1973, 1976; Walton, 1968). Moreover, this hypothesis was confirmed by the significance on variables of Extrapunitiveness and Intrapunitiveness.

Fould's conception of Extrapunitiveness is related to the notions of projection in the denial of internal responsibility by blaming others. Intrapunitiveness, on the other hand, is related to notions of self-criticism and guilt, and is seen to be more of a measure of psychological disturbance. Foulds maintains the latter to be more characteristic of alcoholism than the former. With respect to the unacceptability of excessive drinking women alcoholics, this appears to be particularly relevant. It should be noted, however, that the Extrapunitive scale ($P < .01$) for the gamma group was higher than the intrapunitive scale ($P < .05$). It must be borne in mind that this study was dealing with subjects who were coming to terms with their new status as alcoholics (particularly as they were tested shortly after admission). It could have been that they were expressing anger through denial and projection with the result that the Extrapunitive scale was inflated.

However, the Total Hostility scale together with the scales of Extrapunitiveness and Intrapunitiveness confirmed the

hypothesis of greater disturbance among gamma alcoholics.

Semantic Differential

The comparisons between the four concepts on the semantic differential failed to reveal any significant differences. With respect to the social unacceptability of alcoholism among women, it was hypothesized that there would be discrepancies in the construal of society's and the family's perception of self (Stafford and Petaway, 1977; Litman, 1976; Gomberg, 1974). However, this was not found to be the case. The limitations of the statistical analysis as well as the unavailability of a male control group dictated that no further inferences could be made. Closer examination of some of the protocols (see Appendix) revealed certain trends in support of this hypothesis. However, as this was merely a supplementary part of this study, this was not pursued in greater detail. The relationship between the real self-perception and the ideal self-perception was expected to reveal a significant difference. Fundamentally, the idea of low self-esteem and low self-concept has been reported as a characteristic of the alcoholic (Blane, 1968; Swerring, 1978). A study by Beckman has confirmed this for the female alcoholic (1978). The adjectives on this particular format of the SD were, amongst others, anxious - not anxious, self-accepting - self-rejecting, cope with conflicts - cannot cope with conflicts. It was felt that these adjectives should have effectively tapped low self-esteem and reflected certain components of alcoholism. However, this was not found to be the case.

While a 7-point scale potentially (if respondents are truthful), increases the chance of a precise measure of a particular response, it also facilitates faking as expressed in the need to present in a favourable light. In fact, the protocols indicated that there was a tendency for subjects to present themselves in a favourable light. Examples of this were that many SS tended to rate their "real self" perceptions as high on the adjectives of self-accepting, not anxious, happy, and many others. That this favourable rating was suspect, was indicated by aspects which are embodied in the hostility scales which were high, such as self-criticism, projected hostility, guilt and others.

With respect to a large proportion of protocols, there further appeared to be a tendency to rate on or around the mid-point. The exact location of responses on the 7 point scale reflects, according to Osgood, certain aspects of the judgment process related to response conflict (1968). He maintains that the extreme psychological judgments mean a lack of conflict, whereas judgments nearer the centre represent increasing conflict. The tendency to rate in and around the central point, by selecting a "neither" or "don't know" alternative, reflects the avoidance of coming to terms with certain realities faced by women alcoholics.

A further point lies in the formation of response sets. It was noted that there often tended to be little difference between the four profiles presented by the subjects. This meant that a subject's description of her real self perception

did not differ from her ideal self perception or from any of the other profile. This may have been attributed to either response set or in the factor of social desirability.

However, the lack of significant findings may be seen to reflect a significant role of social desirability and denial in the self-conceptualization of the women alcoholics. Thus, although not overtly, these findings tend to support a point frequently made in the literature that women alcoholics tend to have low self-esteem and tend to deny their problems of drinking (Beckman, 1978; Blane, 1968; Sweering, 1978).

Symptom Sign Inventory

The diagnosis of all subjects on the SSI as either neurotic psychotic or personally disturbed supports the idea that psychological disturbance is a crucial component of alcoholism (WHO, 1952; Keller, 1972; Glatt, 1973; Davis, 1973). The non-significant Chi squared (X^2) between the male and female subjects on the symptom clusters measured by the SSI, further supports the hypothesis of no difference in degree of psychological disturbance between male and female alcoholics.

However, the non-significance between the gamma, delta and intermediate groups was not supported by the SSI (Walton, 1968; Abelson, 1973, 1976).

This may have been attributable to the small sample size.

A further point lies in the selectivity of this sample. The hospital is selective in that only patients are admitted who will benefit from a short-term intensive programme. The more chronic and severely disturbed patients are eliminated thereby restricting the spectrum of psychological disturbance. Hence this sample cannot be seen as random and therefore representative of the total alcoholic population.

The SSI is eminently susceptible to faking, as mentioned in the Method. Consistently affirmative responses may have reflected an attempt on the part of the subject to exaggerate their symptomatology, while consistently negative responses may be construed as denial. The Experimenter attempted to minimize this process by interrupting the questioning process when a response set appeared, and re-asking certain questions urging the subjects to be thoughtful and accurate about their answers. The SSI's potential lack of reliability probably introduced spurious and random errors in diagnosis, since there did not seem to be a single pattern of faking.

Another source of spurious errors in diagnosis arises from the fact that the SSI is a general diagnostic test and not specifically for alcoholics. Certain responses to the inventory may be interpreted as a consequence of complications arising from excessive drinking rather than from any "primary" form of psychological disturbance. For example, the question "does your hand often shake when you try to do something", which attempts to tap an anxiety state, may be answered in

the affirmative by the alcoholic who was not in fact unduly anxious. Although, the experimenter attempted to control for this by stated "when you have not been drinking", it must inevitably remain a largely uncontrolled given.

Due to small sample size, and the limitations of the SSI as a diagnostic tool in alcoholism, it may be useful to supplement the nomothetic approach with an ideographic analysis of cases. Case studies can give valuable insights into personality dynamics which may be masked by nomothetic techniques. The three cases to be analyzed (a gamma, delta and intermediate pattern) were randomly selected from the three respective groups. Their histories support the descriptive value of these classifications, particularly gamma and delta. The cases shall be presented then discussed.

Case Histories of a Gamma, a Delta and an Intermediate Female Alcoholic Subject

Case I

A Gamma Drinking Pattern: The subject was a 31-year-old housewife who was divorced for the second time. This was her second admission to this hospital for the treatment of alcoholism. She had three prior admission to psychiatric hospitals for treatment of depression and acute anxiety state.

Alcoholic history and Drinking Pattern: The subject began regular drinking at the age of 18. Problem drinking started at the age of 27 and was marked by the loss of control over

alcohol consumption with an ability to abstain for short intervals. Blackouts were a frequent concomitant of drinking. When intoxicated, the subject would become physically aggressive.

Psychiatric and Personal History: The subject was enuretic until the age of 5 with occasional sleepwalking till a later age. At 9 years the subject and family moved from Europe to North America. For approximately one year the subject had to sleep in the same room as her parents and was exposed to their intimacies and quarrels. This the subject found disturbing. When the subject was 13, her mother had a psychotic episode and was hospitalized in a padded cell. The subject visited her mother and found this a most distressing experience. Her mother had frequent breakdowns of this kind and her father had alcohol problems.

At the age of 15, the subject experienced her first anxiety attack which was related to the stresses in the home situation. She had three subsequent to this, the last terminating in hospitalization at the age of 18 shortly after the family moved back to Europe. However, the subject was discharged after 12 days and maintained on tranquilizers and hypnotics. At the age of 21, the subject first attempted suicide when her mother was undergoing another psychotic episode. Shortly afterwards, the subject moved to Central Africa where she married shortly after arrival, at 23. The subject reported difficulties in the marital relationship which she largely attributed to her spouse's obsessionality and emotional distance.

At the age of 26, the subject attempted suicide for the second time and claimed this to be directly related to the marital relationship. As the marital relationship disintegrated, so drinking was exacerbated. The onset of excessive drinking coincided with her second suicide attempt. At this stage alcohol invariably released violent and destructive behaviour in relation to frustrations in her marital relationship. The dissolution of the marriage three years later after a move to South Africa, left the subject in a severe state of depression and anxiety. In 1974, and later in 1976, she was hospitalized with a diagnosis "reactive depression with acute anxiety". In the meanwhile the alcohol problem was increasing and in 1977, the subject was referred to the alcoholic hospital. She abstained for several months but started drinking again which resulted in her second admission in the period of one year.

Case II

A Delta Drinking Pattern: The subject was a 65-year-old widow who was unemployed. This was her second admission to a psychiatric institution. Her first admission was to a state mental hospital for "reactive depression".

Alcoholic History and Drinking Pattern: The subject reported that excessive drinking began at the death of her spouse two years prior to her second admission. She claims to have no history of regular or problem drinking prior to the

onset of excessive drinking. Despite a measure of denial, she showed many signs of alcohol addiction (blackouts, shakes, and "regmaakers" in the morning). She had tots throughout the day with a large one at night to help her sleep. Her alcohol problem was brought to attention after a fall in an intoxicated state. The effects of alcohol made the subject feel "cozy" and helped her to sleep.

Personal and Psychiatric History: The subject reported an emotionally uneventful childhood and early adulthood. At school she was shy but outgrew this later. She described her parent's relationship as "good" and reported that her father was a social drinker. At 18 years, she completed school and embarked on her occupational career in which she started several courses but did not complete any as she developed pleurosy which left her feeling weak for several months. She found a job which she maintained for several years.

At 25, the subject married, but was not particularly emotionally involved with her spouse. She described her marital relationship as "harmonious" and her spouse as very shy and placid. The subject was the dominant partner in the relationship and took all the decisions.

When the subject was 28, she had her first child who had a cleft pallet. The subject reports that she had to stay awake many nights with the child and this "messed up her nerves" and marked the onset of insomnia from which she has suffered since.

At 42 years the subject had a hysterectomy after which she became severely depressed. She was admitted to a psychiatric hospital and received ECT treatment and reported no severe recurrence of depression.

The subject reported to have always been afraid of going out alone and has a phobia of cars. She copes with this by staying at home. In 1976 her spouse died. The bereavement together with loneliness and insomnia lead to exacerbation of the drinking problem. However, the subject has had difficulty in accepting that she has a drinking problem and tends to minimize and deny it.

Case III

An Intermediate Drinking Pattern: The subject was a 31-year-old divorcee who was employed as a private secretary in a large company. This was her second admission for the treatment of alcoholism.

Alcoholic History and Drinking Pattern: The subject started regular drinking at the age of 22. At social gatherings, which were frequent, she used to drink to excess. Problem drinking started when the subject was 29 and coincided with marital difficulties. The subject used to drink daily. She could limit the amount of alcohol in the morning, but used to drink to the point of intoxication in the evenings. She had one dry period in an attempt to save her marriage, but

when she saw it dissolving, she began drinking excessively. She reports blackouts and shakes in the morning. The effects of alcohol give her courage and help "relieve the blues".

Psychiatric and Personal History: The subject was sent to boarding school from an early age. She reported her father to have had a serious drinking problem. She remembers her father always threatening to have extra-marital affairs. When the subject was 15, she found out that her father had attempted suicide when she was 12 and this news was distressing. The subject described her mother as being very depressed at times. When the subject was 17, her father died from cirrhosis (alcohol complications) and her mother started excessive drinking.

The subject had a sibling who was retarded and institutionalized and only discovered this when she was 18. This news she found disturbing.

The subject did well at school but has had an erratic occupational history. She lost several jobs, but claims to have only lost one through alcohol.

When the subject was 22, she met her prospective spouse with whom she lived for two years prior to their marriage in 1971. Two years after her marriage the subject began experiencing problems in communication. She felt neglected by her spouse, and her drinking began to increase. As she feared the relationship was disintegrating, she abstained for a few

months in an attempt to save the marriage. However, she subsequently discovered her spouse to be involved in an extra-marital affair. This resulted in a relapse to excessive drinking. During this period, her general practitioner referred her to a private nursing home where she was treated for alcoholism with medication. Three weeks after being discharged, she began drinking again. In 1977, after the divorce was finalized, her drinking continued until a suicide attempt after which she was taken to hospital. She was then referred to this hospital for treatment of alcoholism.

From the foregoing case studies, there appear to be marked differences in particular between the psychiatric and alcoholic histories of gamma and delta subjects. The experimental part of this study revealed significant differences between gamma and delta groups on certain variables. The intermediate group failed to emerge on any of these as a discrete subtype. In the original classification of drinking patterns, intermediate constituted aspects of 'closer to gamma' and 'closer to delta'. It may be that they require further and more stringent investigation. However, the tendency in past research has been to include them in a single intermediate group (Walton, 1968; Abelsohn, 1973) as they have not revealed any significant characteristics.

From this point, the discussion will focus on differences between gamma and delta as they constitute distinct subtypes.

Age of Onset of Excessive Drinking as Related to Gamma and Delta Alcoholism

Similarly with Abelson, a significant difference was found in the age of onset of excessive drinking between gamma and delta groups. The gamma groups had an early age of onset of excessive drinking. Holding social class constant, Rimmer (1971) found the early age onset drinkers were more psychologically disturbed and displayed characteristics typical to gamma alcoholism such as loss of control and more severe medical complications.

From the case history material, it can be seen that the gamma subject had a more disturbed history of psychiatric disorders from an early age. These were intensified during adolescence and early adulthood and coincided with disruptions in the family network of the subject. This observation is compatible with evidence presented by Abelson (1973, 1978).

From this data, the following inference may be drawn: that the gamma subject's drinking was marked by intermittent psychological crisis. The bouts were characterized by destructive and aggressive behaviour. Drinking was only terminated when the subject passed out or when the source of alcohol was depleted. Just as the drinking pattern of the gamma alcoholic was characterised by loss of control, so this was reflected in the psychological history, which was one of recurrent crises and excessive responses to these crises such as suicide attempts and acute anxiety attacks.

The delta subject's psychological history was more stable and

provided less evidence of excessive or dramatic crisis. Accordingly, drinking was more regular and less concentrated in bouts. The drinking was compatible with her normal everyday functioning. The pattern was more controlled and exhibited less self-destructive elements. It may be inferred from these qualitative observations that gamma alcoholism represents a more disturbed clinical profile than delta alcoholism. The findings form the experimental part of this study, in particular from the HHDHQ support they hypothesis of greater psychological disturbance for gamma alcoholism (Abelsohn, 1973, 1978; Walton, 1968). Thus in conjunction with quantitative findings, the qualitative observations appear to provide evidence for a discernible spectrum of disturbance and hence the consistent usefulness of the gamma-delta dichotomy.

The majority of researchers in this field have tended to regard severe disturbance as was manifested by the gamma subject as characteristic of all female alcoholics. The evidence from the nomothetic and ideographic data clearly reveal this not to be the case. Instead, the usefulness of classifying female alcoholics into subgroups emerges as a real alternative in investigating female alcoholics. Implicit in this is the need to abandon the homogenous approach and hence the rejection of the hypothesis of greater disturbance among female alcoholics (Beckman, 1975, 1976; Litman, 1975).

Social Norms and Alcoholism Among Women

The place of the social unacceptability hypothesis in the determination of psychological disturbance should be questioned. The foregoing analysis revealed gamma and delta patterns of alcoholism to be intimately related to the psychological disturbance of the individual. In the light of this, the explanation of social norms both oversimplify the problem of alcoholism and undermine the position of psychological variables.

The "vulnerability acceptance" hypothesis postulates a rather direct link between sanctions related to excessive drinking among women and the severity of personality pathology, namely the more stringent the norms, the more vulnerable and disturbed the female alcoholic.

It seems plausible that social pressures on women alcoholics play a more specific and limited role. That is, social sanctions have effectively kept women with drinking problems away from treatment with the result that when they do finally present, they do so in the late stages of the disorder. That is, social sanctions do not affect the prevalence of alcoholism among women nor the variability in its severity. But they do effectively mask the problem, viz. the phenomenon of the secret drinker (Litman, 1975, Sclare, 1970) and the low incidence of women alcoholics in public treatment centres (Sclare, 1970, Gomberg, 1974.).

The different degrees of psychological disturbance were found to be characteristic of the gamma and delta subtype in both

men and women (Abelsohn, 1978). That women and men alcoholics within a given category share a common type of psychological disturbance is indicated by the HDHQ data of Abelsohn in conjunction with that of the present study. It seems that the sex of the alcoholic does not account for his/her psychological disturbance rather the nature of the category related syndrome is irrespective of sex. This idea was supported by the SSI where there were no differences in symptom clusters between male and female alcoholics.

Clinical Implications for Female Alcoholics

The prognosis for female alcoholics is likely to improve if consideration is taken of the specific needs of alcoholism within the gamma and delta categories.

The implication of greater psychological disturbance for gamma alcoholism lies in the possibility that they require long term treatment which aims at personality reconstruction. Delta alcoholism, on the other hand, since the problems are less severe, may require less intensive therapy. If consideration is taken of the real heuristic value of these categories, the prognosis will improve.

CONCLUSION

In conclusion, the observations from the nomothetic and ideographic parts of this study provide convincing evidence in support of the notion of female alcoholic subtypes.

The usefulness of Jellinek's gamma/delta classification was supported by the significant differences in the degrees of psychological disturbance as measured on the HDHQ, and as observed in the case summaries.

That this classification discerned features characteristic to particular forms of alcoholism irrespective of sex, was supported by the findings on the SSI. In addition, Abelson provided supporting data from the HDHQ (1973, 1978).

This confirmed the multidimensional and diverse nature of alcoholism (Keller, 1972; Glatt, 1973; WHO, 1952, 1977; Davis, 1973).

The notion that female alcoholics are more psychologically disturbed than male alcoholics is perpetrated by the particular methodologies employed in this subject (such as the phenomenon of biased samples) and the particular approach in research (namely the approach of homogeneity). This has led to the distorted awareness of the real problems among women alcoholics.

Once it is possible to reject the notion that female alcoholics

constitute a homogenous and distinct group, the path is cleared for a classificatory system. Within this context, Jellinek's categories appear to be an adequately descriptive tool for future research on female alcoholics.

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APPENDIX IHOTELLINGS T^2 FOR INDEPENDENT SAMPLESTABLE 1: Correlations for Gamma Group

	Total Hostility	Direction of Hostility	Extrapunitiveness	Intrapunitiveness
Total hostility	1000			
Direction of hostility	-646	1000		
Extrapunitiveness	941	-798	1000	
Intrapunitiveness	275	380	-61	1000

TABLE 2: Correlations for Delta Group

	Total Hostility	Direction of Hostility	Extrapunitiveness	Intrapunitiveness
Total Hostility	1000			
Direction of Hostility	97	1000		
Extrapunitiveness	847	-345	1000	
Intrapunitiveness	862	548	567	1000

TABLE 3: Correlations for delta and Intermediate comparison

Sample I - Delta (X1000)

	Total Hostility	Direction of Hostility	Extrapunitive-ness	Intrapunitive-ness
Total hostility	1000			
Direction of hostility	97	1000		
Extrapunitive-ness	847	-354	1000	
Intrapunitive-ness	862	548	567	1000

Sample II - Intermediate (X1000)

	Total Hostility	Direction of Hostility	Extrapunitive-ness	Intrapunitive-ness
Total hostility	1000			
Direction of hostility	-452	1000		
Extrapunitive-ness	910	-777	1000	
Intrapunitive-ness	445	590	34	1000

Appendix IISEMANTIC DIFFERENTIAL (OSGOOD)

NAME.....

Rate on the 7 point scale how you see yourself.

self accepting	- - - - -	self-rejecting
secure within self	- - - - -	insecure within self
anxious	- - - - -	not anxious
happy	- - - - -	unhappy
confident	- - - - -	not confident
lonely	- - - - -	not lonely
understand self well	- - - - -	don't understand self
reliable/trustworthy	- - - - -	unreliable/untrustworthy
free	- - - - -	restricted
cope with conflicts	- - - - -	can't cope with conflicts
understand others	- - - - -	don't understand others
understood by others	- - - - -	not understood by others
secure in social situations	- - - - -	insecure in social situations
trusting	- - - - -	untrusting
get on well with people	- - - - -	don't get on well
gregorious/ outgoing	- - - - -	not gregorious
communicate well	- - - - -	superficial communication
cooperative	- - - - -	uncooperative
good ability to listen	- - - - -	poor ability to listen
supportive/ caring	- - - - -	unsupportive uncaring

NAME.....

Rate on the 7 point scale as you think your family and friends would rate you on this scale.

self accepting	- - - - -	self-rejecting
secure within self	- - - - -	insecure within self
anxious	- - - - -	not anxious
happy	- - - - -	unhappy
confident	- - - - -	not confident
lonely	- - - - -	not lonely
understand self well	- - - - -	don't understand self
reliable/trustworthy	- - - - -	unreliable/untrustworthy
free	- - - - -	restricted
cope with conflicts	- - - - -	can't cope with conflicts
understand others	- - - - -	don't understand others
understood by others	- - - - -	not understood by others
secure in social situations	- - - - -	insecure in social situations
trusting	- - - - -	untrusting
get on well with people	- - - - -	don't get on well
gregarious/outgoing	- - - - -	not gregarious
communicate well	- - - - -	superficial communication
cooperative	- - - - -	uncooperative
good ability to listen	- - - - -	poor ability to listen
supportive/caring	- - - - -	unsupportive/uncaring

NAME.....

Rate on the 7 point scale as you think society would rate you as a women with a drinking problem.

self accepting	- - - - -	self-rejecting
secure within self	- - - - -	insecure within self
anxious	- - - - -	not anxious
happy	- - - - -	unhappy
confident	- - - - -	not confident
lonely	- - - - -	not lonely
understand self well	- - - - -	don't understand self
reliable/trustworthy	- - - - -	unreliable/untrustworthy
free	- - - - -	restricted
cope with conflicts	- - - - -	can't cope with conflicts
understand others	- - - - -	don't understand others
understood by others	- - - - -	not understood by others
secure in social situations	- - - - -	insecure in social situation
trusting	- - - - -	untrusting
get on well with people	- - - - -	don't get on well
gregarious/outgoing	- - - - -	not gregarious
communicate well	- - - - -	superficial communication
cooperative	- - - - -	uncooperative
good ability to listen	- - - - -	poor ability to listen
supportive/caring	- - - - -	unsupportive/uncaring

NAME.....

Rate on the 7 point scale as you would like yourself to be.

self accepting	- - - - -	self-reflecting
secure within self	- - - - -	insecure within self
anxious	- - - - -	not anxious
happy	- - - - -	unhappy
confident	- - - - -	not confident
lonely	- - - - -	not lonely
understand self well	- - - - -	don't understand self
reliable/trustworthy	- - - - -	unreliable/untrustworthy
free	- - - - -	restricted
cope with conflicts	- - - - -	can't cope with conflicts
understand others	- - - - -	don't understand others
understood by others	- - - - -	not understood by others
secure in social situations	- - - - -	insecure in social situations
trusting	- - - - -	untrusting
get on well with people	- - - - -	don't get on well
gregarious/outgoing	- - - - -	not gregarious
communicate well	- - - - -	superficial communication
cooperative	- - - - -	uncooperative
good ability to listen	- - - - -	poor ability to listen
supportive/caring	- - - - -	unsupportive/uncaring

Appendix IIIINTERVIEW SCHEDULE

- 1) Name.....
- 2) Date of Birth.....
- 3) Marital Status
 - Single
 - Married
 - Living with de facto
 - Separated
 - Divorced
 - Widowed
- 4) Educational Level
 - Highest school standard
 - Post school qualifications
 - Technical and semi professional training
 - Academic and commercial:
 - Diplomas
 - Degrees
- 5) Occupational Status
 - Professional (e.g. teacher)
 - Semi-professional (e.g. nurse)
 - Commercial (e.g. secretary)
 - Other (e.g. sales assistant)
 - Unemployed (e.g. housewife)
- 6) Desired Occupational Level
 - Professional (e.g. teacher)
 - Semi-professional (e.g. nurse)
 - Commercial (e.g. secretary)
 - Other (e.g. sales assistant)
 - Unemployed (e.g. housewife)
- 7) Social History till age 21
 - Parents living together in harmony
 - Parents living together in disharmony
 - Parents separated
 - Parents divorced
 - Mother died
 - Father died
- 8) Family History of drinking
 - One parent
 - Both parents
- 9) Drinking habits of parent/s
 - Teetotaler
 - Social drinker
 - Excessive drinker

10) If Married

Perceived quality of marriage

Harmonious
Fair
Disharmonious

Current occupation of spouse

Unemployed
Unskilled work
Semi-skilled work
Skilled work or foreman
Clerk
Proprieter, manager
Professional

Number of jobs held by spouse in past 3 years

Drinking habits of spouse

Teetotaler
Social drinker
Excessive drinker

11) Number and ages of children, if any.....

Difficulties, if any, at school or at home.....

.....

12) Age of first drink

13) Age when first drunk

14) Age of onset of excessive drinking

15) Age when first aware of drinking problem

16) How did drinking take place predominamtly

Alone
With others
Both equally

17) Where did drinking take place predominantly

At home
At a friends house
At clubs
At work

18) What were the circumstances surrounding the onset of excessive drinking

.....

.....

.....

19) When drinking, do you experience a loss of control over alcohol or an inability to abstain

20) What were the attitudes of you spouse/close friends towards drinking

- Approving
- Indifferent
- Disapproving

21) Age when spouse/close friends first became aware of drinking problem

22) Source of referral

- Self
- Spouse/family
- Close friends
- Medical practitioner

23) If self or medical

What were the feelings of spouse/family/close friends towards treatment

- Opposed
- Indifferent
- In favour
- Strongly in favour

24) What were your own feelings about treatment

- Opposed
- Indifferent
- In favour
- Strongly in favour

25) History of other Psychiatric Illness

.....
.....

26) Have you sought help previously, if so for what.....

.....
.....

Place

- Hospitalization
- Marriage guidance
- Child guidance
- Alcoholic rehabilitation
- Private treatment
- Lay organizations

27) Do you think you are an alcoholic?

- Yes
- No
- Unsure

28) What is an alcoholic
.....
.....
.....
.....

Appendix IVHOSTILITY DIRECTION OF HOSTILITY
QUESTIONNAIRE (FOULDS)

Remember to answer each statement.

- | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|
| 1. Most people make friends because friends are likely to be useful to them | True | False |
| 2. I do not blame a person for taking advantage of someone who lays himself open to it | True | False |
| 3. I usually expect to succeed in things I do | True | False |
| 4. I have no enemies who really wish to harm me | True | False |
| 5. I wish I could get over worrying about things I have said that may have injured other people's feelings | True | False |
| 6. I think nearly anyone would tell a lie to keep out of trouble | True | False |
| 7. I don't blame anyone for trying to grab everything he can get in this world | True | False |
| 8. My hardest battles are with myself | True | False |
| 9. I know who, apart from myself, is responsible for most of my troubles | True | False |
| 10. Some people are so bossy that I feel like doing the opposite of what they request, even though I know they are right | True | False |
| 11. Some of my family have habits that bother and annoy me very much | True | False |
| 12. I believe my sins are unpardonable | True | False |
| 13. I have very few quarrels with members of my family | True | False |
| 14. I have often lost out on things because I couldn't make up my mind soon enough | True | False |
| 15. I can easily make other people afraid of me, and sometimes do for the fun of it | True | False |
| 16. I believe I am a condemned person | True | False |
| 17. In school I was sometimes sent to the principal for misbehaving | True | False |
| 18. I have at times stood in the way of people who were trying to do something, not because it amounted to much but because of the principle of the thing | True | False |
| 19. Most people are honest chiefly through fear of being caught | True | False |
| 20. Sometimes I enjoy hurting persons I love | True | False |
| 21. I have not lived the right kind of life | True | False |
| 22. Sometimes I feel as if I must injure either myself or someone else | True | False |
| 23. I seem to be about as capable and clever as most others around me | True | False |
| 24. I sometimes tease animals | True | False |

- 25. I get angry sometimes True False
- 26. I am entirely self-confident True False
- 27. Often I can't understand why I have been so cross and grouchy True False
- 28. I shrink from facing a crisis or difficulty True False
- 29. I think most people would lie to get ahead True False
- 30. I have sometimes felt that difficulties were piling up so high that I could not overcome them True False
- 31. If people had not had it in for me I would have been much more successful True False
- 32. I have often found people jealous of my good ideas, just because they had not thought of them first True False
- 33. Much of the time I feel as if I have done something wrong or evil True False
- 34. I have several times given up doing a thing because I thought too little of my ability True False
- 35. Someone has it in for me True False
- 36. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing True False
- 37. I am sure I get a raw deal from life. True False
- 38. I believe I am being followed True False
- 39. At times I have a strong urge to do something harmful or shocking True False
- 40. I am easily downed in an argument. True False
- 41. It is safer to trust nobody True False
- 42. I easily become impatient with people True False
- 43. At times I think I am no good at all True False
- 44. I commonly wonder what hidden reason another person may have for doing something nice for me True False
- 45. I get angry easily and then get over it soon True False
- 46. At times I feel like smashing things True False
- 47. I believe I am being plotted against. True False
- 48. I certainly feel useless at times True False
- 49. At times I feel like picking a fist fight with someone True False
- 50. Someone has been trying to rob me True False
- 51. I am certainly lacking in self-confidence True False

Please check to see that you have given answers for every statement.

Appendix V

SYMPTOM SIGN INVENTORY (FOULDS)

If an item is scored positively, a tick should be placed to the left of that item's number.

- A1 Does your hand often shake when you try to do something?
 2 Do you sweat very easily, even on cool days?
 3 Do you suffer from palpitations or breathlessness?
 4 Are there times when you feel anxious without knowing the reason?
 5 Are you afraid of being in a wide-open space or in an enclosed space?
 6 Are you afraid that you might be going insane?
 7 Have you a pain, or feeling of tension, in the back of the neck?
 8 Have you any difficulty in getting off to sleep (without sleeping pills)?
 9 Are you afraid of going out alone?
 10 Have you any particular fear not mentioned above?
- B1 Do you cry rather easily?
 2 Have you lost interest in almost everything?
 3 Have you ever attempted to do away with yourself?
 4 Is the simplest task too much of an effort?
 5 Are you depressed because of some particular loss or disappointment?
 6 Have you found it difficult to concentrate recently?
 7 Does the future seem pointless?
 8 Are you more absent-minded recently than you used to be?
 9 Are you slower recently in everything you do?
 10 Do you ever seriously think of doing away with yourself because you are no longer able to cope with your difficulties?

Past week

- C1 Do you ever feel so confident and successful that there is nothing you can't achieve?
 2 Do you ever become very excitedly happy at times, for no special reason?
 3 Are you ever so cheerful that you want to laugh and joke with everyone?
 4 Are there times when exciting new ideas and schemes occur to you one after the other?
 5 Are you ever so full of pep and energy that you carry on doing things indefinitely?

Past week

- 6 Do you ever become so excited that your thoughts race ahead faster than you can express them?
 7 Are you ever so cheerful that you want to wear lots of gay things, like button-holes, flowers, bright ties, jewellery, etc.?
 8 When you get bored, do you ever like to stir up some excitement?
 9 Do you ever feel so full of energy and ideas that you don't want to go to bed?
 10 Are you a much more important person than most people seem to think?
- D1 Are people talking about you and criticizing you through no fault of your own?
 2 Have you an important mission to carry out?
 3 Are there people who are trying to harm you through no fault of your own?
 4 Is someone trying to poison you or make you ill in some way?
 5 Have you some special power, ability or influence which is not recognized by other people?
 6 Is someone, other than yourself, deliberately causing most of your troubles?
 7 Are people plotting against you through no fault of your own?
 8 Do you ever take strong action against an evil person for the sake of a principle?
 9 Do you ever see someone do or say something which most people do not take much notice of, but which you know has a special meaning?
 10 Can people read your thoughts and make you do things against your will by a sort of hypnotism?

- E1 Are you distressed by silly, pointless thoughts that keep coming into your mind against your will?
- 2 Are you compelled to think over abstract problems again and again until you can't leave them alone?
- 3 Are you unnecessarily careful in carrying out even simple everyday tasks like folding up clothes, reading notices, etc.?
- 4 Are you unable to prevent yourself from doing quite pointless things, counting windows, uttering phrases, etc.?
- 5 Are you afraid you might do something seriously wrong against your will?
- 6 Do distressing thoughts about sex or religion come into your mind against your will?
- 7 Do you feel you just have to check things again and again—like turning off taps or lights, shutting windows at night, etc.—although you know there is really no need to?
- 8 Have you an unreasonable fear that some careless act of yours might have very serious consequences?
- 9 Are you excessively concerned about cleanliness?
- 10 Do you have an uneasy feeling if you don't do something in a certain order, or a certain number of times?
- F1 Do you feel that there is some sort of barrier between you and other people so that you can't really understand them?
- 2 Do you ever see visions, or people, animals or things around you that other people don't seem to see?
- 3 Do you often wonder who you really are?
- 4 Do you ever have very strange and peculiar experiences?
- 5 Do you think other people regard you as very odd?
- 6 Do you often feel puzzled, as if something has gone wrong either with you or with the world, without knowing just what it is?
- 7 Do you ever hear voices without knowing where they come from?
- 8 Do you feel you cannot communicate with other people because you don't seem to be on the same 'wave-length'?
- 9 Do you have very strange and peculiar thoughts at times?
- 10 Is there something unusual about your body—like one side being different from the other and meaning something different?
- G1 Do you ever lose the use of an arm or leg or face muscle?
- 2 Do you ever have fits or difficulty in keeping your balance?
- 3 Do you ever completely lose your voice (except from a cold)?
- 4 Do you ever lose all feeling in any part of your skin—so that you wouldn't be able to feel a pin prick—or do you ever have burning or tingling sensations?
- 5 Do you ever have 'black-outs', dizzy spells or faints?
- 6 Have you been in poor physical health during most of the past few years?
- 7 Do you often suffer from blurring of vision or any other difficulty with your sight which no one seems to be able to put right?
- 8 Are you often bothered with pains over your heart, in your chest or in your back?
- 9 Do you ever do things in a dream-like state without remembering afterwards what you have been doing?
- 10 Are you worried about your physical health?
- H1 Are you worried about having said things that have injured others?
- 2 Are you an unworthy person in your own eyes?
- 3 Have you some bodily condition which you find disgusting?
- 4 Are you a condemned person because of your sins?
- 5 Are you troubled by waking in the early hours and being unable to get off to sleep again (if you don't have sleeping pills)?
- 6 Because of things you have done wrong, are people talking about you and criticizing you?
- 7 Are you ever so low in spirits that you just sit for hours on end?
- 8 Do you cause harm to people because of what you are?
- 9 Are you ever so 'worked up' that you pace about wringing your hands?
- 10 Do you ever go to bed feeling you wouldn't care if you never woke up?

Appendix VI

CATTELL'S 16 PERSONALITY FACTOR QUESTIONNAIRE

1. I have the instructions for this test clearly in mind.
a. yes, b. uncertain, c. no.
2. I am ready to answer each question as truthfully as possible.
a. yes, b. uncertain, c. no.
3. I would rather have a house:
a. in a sociable suburb,
b. in between,
c. alone in the deep woods.
4. I can find enough energy to face my difficulties.
a. always, b. generally, c. seldom.
5. I feel a bit nervous of wild animals even when they are in strong cages.
a. yes (true), b. uncertain, c. no (false).
6. I hold back from criticizing people and their ideas.
a. yes, b. sometimes, c. no.
7. I make smart, sarcastic remarks to people if I think they deserve it.
a. generally, b. sometimes, c. never.
8. I prefer semiclassical music to popular tunes.
a. true, b. uncertain, c. false.
9. If I saw two neighbors' children fighting, I would:
a. leave them to settle it,
b. uncertain,
c. reason with them.
10. On social occasions I:
a. readily come forward,
b. in between,
c. prefer to stay quietly in the background.
11. It would be more interesting to be:
a. a construction engineer,
b. uncertain,
c. a writer of plays.
12. I would rather stop in the street to watch an artist painting than listen to some people having a quarrel.
a. true, b. uncertain, c. false.
13. I can generally put up with conceited people, even though they brag or show they think too well of themselves.
a. yes, b. in between, c. no.
14. You can almost always notice on a man's face when he is dishonest.
a. yes, b. in between, c. no.
15. It would be good for everyone if vacations (holidays) were longer and everyone had to take them.
a. agree, b. uncertain, c. disagree.
16. I would rather take the gamble of a job with possibly large but uneven earnings, than one with a steady, small salary.
a. yes, b. uncertain, c. no.
17. I talk about my feelings:
a. only if necessary,
b. in between,
c. readily, whenever I have a chance.
18. Once in a while I have a sense of vague danger or sudden dread for reasons that I do not understand.
a. yes, b. in between, c. no.
19. When criticized wrongly for something I did not do, I:
a. have no feeling of guilt,
b. in between,
c. still feel a bit guilty.
20. Money can buy almost everything.
a. yes, b. uncertain, c. no.
21. My decisions are governed more by my:
a. heart,
b. feelings and reason equally,
c. head.
22. Most people would be happier if they lived more with their fellows and did the same things as others.
a. yes, b. in between, c. no.
23. I occasionally get puzzled, when looking in a mirror, as to which is my right and left.
a. true, b. uncertain, c. false.
24. When talking, I like:
a. to say things, just as they occur to me,
b. in between,
c. to get my thoughts well organized first.
25. When something really makes me furious, I find I calm down again quite quickly.
a. yes, b. in between, c. no.

(End, column 1 on answer sheet.)

26. With the same hours and pay, it would be more interesting to be:
 a. a carpenter or cook,
 b. uncertain,
 c. a waiter in a good restaurant.
27. I have been elected to:
 a. only a few offices,
 b. several,
 c. many offices.
28. "Spade" is to "dig" as "knife" is to:
 a. sharp, b. cut, c. point.
29. I sometimes can't get to sleep because an idea keeps running through my mind.
 a. true, b. uncertain, c. false.
30. In my personal life I reach the goals I set, almost all the time.
 a. true, b. uncertain, c. false.
31. An out-dated law should be changed:
 a. only after considerable discussion,
 b. in between,
 c. promptly.
32. I am uncomfortable when I work on a project requiring quick action affecting others.
 a. true, b. in between, c. false.
33. Most of the people I know would rate me as an amusing talker.
 a. yes, b. uncertain, c. no.
34. When I see "sloppy," untidy people, I:
 a. just accept it,
 b. in between,
 c. get disgusted and annoyed.
35. I get slightly embarrassed if I suddenly become the focus of attention in a social group.
 a. yes, b. in between, c. no.
36. I am always glad to join a large gathering, for example, a party, dance, or public meeting.
 a. yes, b. in between, c. no.
37. In school I preferred (or prefer):
 a. music,
 b. uncertain,
 c. handwork and crafts.
38. When I have been put in charge of something, I insist that my instructions are followed or else I resign.
 a. yes, b. sometimes, c. no.
39. For parents, it is more important to:
 a. help their children develop their affections,
 b. in between,
 c. teach their children how to control emotions.
40. In a group task I would rather:
 a. try to improve arrangements,
 b. in between,
 c. keep the records and see that rules are followed.
41. I feel a need every now and then to engage in a tough physical activity.
 a. yes, b. in between, c. no.
42. I would rather mix with polite people than rough, rebellious individuals.
 a. yes, b. in between, c. no.
43. I feel terribly dejected when people criticize me in a group.
 a. true, b. in between, c. false.
44. If I am called in by my boss, I:
 a. make it a chance to ask for something I want,
 b. in between,
 c. fear I've done something wrong.
45. What this world needs is:
 a. more steady and "solid" citizens,
 b. uncertain,
 c. more "idealists" with plans for a better world.
46. I am always keenly aware of attempts at propaganda in things I read.
 a. yes, b. uncertain, c. no.
47. As a teenager, I joined in school sports:
 a. occasionally,
 b. fairly often,
 c. a great deal.
48. I keep my room well organized, with things in known places almost all the time.
 a. yes, b. in between, c. no.
49. I sometimes get in a state of tension and turmoil as I think of the day's happenings.
 a. yes, b. in between, c. no.
50. I sometimes doubt whether people I am talking to are really interested in what I am saying.
 a. yes, b. in between, c. no.

(End, column 2 on answer sheet.)

51. If I had to choose, I would rather be:
a. a forester,
b. uncertain,
c. a high school teacher.
52. For special holidays and birthdays, I:
a. like to give personal presents,
b. uncertain,
c. feel that buying presents is a bit of a nuisance.
53. "Tired" is to "work" as "proud" is to:
a. smile, b. success, c. happy.
54. Which of the following items is different in kind from the others?
a. candle, b. moon, c. electric light.
55. I have been let down by my friends:
a. hardly ever,
b. occasionally,
c. quite a lot.
56. I have some characteristics in which I feel definitely superior to most people.
a. yes, b. uncertain, c. no.
57. When I get upset, I try hard to hide my feelings from others.
a. true, b. in between, c. false.
58. I like to go out to a show or entertainment:
a. more than once a week (more than average),
b. about once a week (average),
c. less than once a week (less than average).
59. I think that plenty of freedom is more important than good manners and respect for the law.
a. true, b. uncertain, c. false.
60. I tend to keep quiet in the presence of senior persons (people of greater experience, age, or rank).
a. yes, b. in between, c. no.
61. I find it hard to address or recite to a large group.
a. yes, b. in between, c. no.
62. I have a good sense of direction (find it easy to tell which is North, South, East, or West) when in a strange place.
a. yes, b. in between, c. no.
63. If someone got mad at me, I would:
a. try to calm him down,
b. uncertain,
c. get irritated.
64. When I read an unfair magazine article, I am more inclined to forget it than to feel like "hitting back."
a. true, b. uncertain, c. false.
65. My memory tends to drop a lot of unimportant, trivial things, for example, names of streets or stores in town.
a. yes, b. in between, c. no.
66. I could enjoy the life of an animal doctor, handling disease and surgery of animals.
a. yes, b. in between, c. no.
67. I eat my food with gusto, not always so carefully and properly as some people.
a. true, b. uncertain, c. false.
68. There are times when I don't feel in the right mood to see anyone.
a. very rarely,
b. in between,
c. quite often.
69. People sometimes warn me that I show my excitement in voice and manner too obviously.
a. yes, b. in between, c. no.
70. As a teenager, if I differed in opinion from my parents, I usually:
a. kept my own opinion,
b. in between,
c. accepted their authority.
71. I would prefer to have an office of my own, not sharing it with another person.
a. yes, b. uncertain, c. no.
72. I would rather enjoy life quietly in my own way than be admired for my achievements.
a. true, b. uncertain, c. false.
73. I feel mature in most things.
a. true, b. uncertain, c. false.
74. I find myself upset rather than helped by the kind of criticism that many people offer one.
a. often, b. occasionally, c. never.
75. I am always able to keep the expression of my feelings under exact control.
a. yes, b. in between, c. no.

(End, column 3 on answer sheet.)

76. In starting a useful invention, I would prefer:
 a. working on it in the laboratory,
 b. uncertain,
 c. selling it to people.
77. "Surprise" is to "strange" as "fear" is to:
 a. brave, b. anxious, c. terrible.
78. Which of the following fractions is not in the same class as the others?
 a. $\frac{3}{7}$, b. $\frac{3}{9}$, c. $\frac{3}{11}$.
79. Some people seem to ignore or avoid me, although I don't know why.
 a. true, b. uncertain, c. false.
80. People treat me less reasonably than my good intentions deserve.
 a. often, b. occasionally, c. never.
81. The use of foul language, even when it is not in a mixed group of men and women, still disgusts me.
 a. yes, b. in between, c. no.
82. I have decidedly fewer friends than most people.
 a. yes, b. in between, c. no.
83. I would hate to be where there wouldn't be a lot of people to talk to.
 a. true, b. uncertain, c. false.
84. People sometimes call me careless, even though they think I'm a likable person.
 a. yes, b. in between, c. no.
85. "Stage-fright" in various social situations is something I have experienced:
 a. quite often,
 b. occasionally,
 c. hardly ever.
86. When I am in a small group, I am content to sit back and let others do most of the talking.
 a. yes, b. in between, c. no.
87. I prefer reading:
 a. a realistic account of military or political battles,
 b. uncertain,
 c. a sensitive, imaginative novel.
88. When bossy people try to "push me around," I do just the opposite of what they wish.
 a. yes, b. in between, c. no.
89. Business superiors or members of my family, as a rule, find fault with me only when there is real cause.
 a. true, b. in between, c. false.
90. In streets or stores, I dislike the way some persons stare at people.
 a. yes, b. in between, c. no.
91. On a long journey, I would prefer to:
 a. read something profound, but interesting,
 b. uncertain,
 c. pass the time talking casually with a fellow passenger.
92. In a situation which may become dangerous, I believe in making a fuss and speaking up even if calmness and politeness are lost.
 a. yes, b. in between, c. no.
93. If acquaintances treat me badly and show they dislike me:
 a. it doesn't upset me a bit,
 b. in between,
 c. I tend to get downhearted.
94. I find it embarrassing to have praise or compliments bestowed on me.
 a. yes, b. in between, c. no.
95. I would rather have a job with:
 a. a fixed, certain salary,
 b. in between,
 c. a larger salary, which depended on my constantly persuading people I am worth it.
96. To keep informed, I like:
 a. to discuss issues with people,
 b. in between,
 c. to rely on the actual news reports.
97. I like to take an active part in social affairs, committee work, etc.
 a. yes, b. in between, c. no.
98. In carrying out a task, I am not satisfied unless even the minor details are given close attention.
 a. true, b. in between, c. false.
99. Quite small setbacks occasionally irritate me too much.
 a. yes, b. in between, c. no.
100. I am always a sound sleeper, never walking or talking in my sleep.
 a. yes, b. in between, c. no.

(End, column 4 on answer sheet.)

101. It would be more interesting to work in a business:
a. talking to customers,
b. in between,
c. keeping office accounts and records.
102. "Size" is to "length" as "dishonest" is to:
a. prison, b. sin, c. stealing.
103. AB is to dc as SR is to:
a. qp, b. pq, c. tu.
104. When people are unreasonable, I just:
a. keep quiet,
b. uncertain,
c. despise them.
105. If people talk loudly while I am listening to music, I:
a. can keep my mind on the music and not be bothered,
b. in between,
c. find it spoils my enjoyment and annoys me.
106. I think I am better described as:
a. polite and quiet,
b. in between,
c. forceful.
107. I attend social functions only when I have to, and stay away any other time.
a. yes, b. uncertain, c. no.
108. To be cautious and expect little is better than to be happy at heart, always expecting success.
a. true, b. uncertain, c. false.
109. In thinking of difficulties in my work, I:
a. try to plan ahead, before I meet them,
b. in between,
c. assume I can handle them when they come.
110. I find it easy to mingle among people at a social gathering.
a. true, b. uncertain, c. false.
111. When a bit of diplomacy and persuasion are needed to get people moving, I am generally the one asked to do it.
a. yes, b. in between, c. no.
112. It would be more interesting to be:
a. a guidance worker helping young people find jobs,
b. uncertain,
c. a manager in efficiency engineering.
113. If I am quite sure that a person is unjust or behaving selfishly, I show him up, even if it takes some trouble.
a. yes, b. in between, c. no.
114. I sometimes make foolish remarks in fun, just to surprise people and see what they will say.
a. yes, b. in between, c. no.
115. I would enjoy being a newspaper writer on drama, concerts, opera, etc.
a. yes, b. uncertain, c. no.
116. I never feel the urge to doodle and fidget when kept sitting still at a meeting.
a. true, b. uncertain, c. false.
117. If someone tells me something which I know is wrong, I am more likely to say to myself:
a. "He is a liar,"
b. in between,
c. "Apparently he is misinformed."
118. I feel some punishment is coming to me even when I have done nothing wrong.
a. often, b. occasionally, c. never.
119. The idea that sickness comes as much from mental as physical causes is much exaggerated.
a. yes, b. in between, c. no.
120. The pomp and splendor of any big state ceremony are things which should be preserved.
a. yes, b. in between, c. no.
121. It bothers me if people think I am being too unconventional or odd.
a. a lot, b. somewhat, c. not at all.
122. In constructing something I would rather work:
a. with a committee,
b. uncertain,
c. on my own.
123. I have periods when it's hard to stop a mood of self-pity.
a. often, b. occasionally, c. never.
124. Often I get angry with people too quickly.
a. yes, b. in between, c. no.
125. I can always change old habits without difficulty and without slipping back.
a. yes, b. in between, c. no.

(End, column 5 on answer sheet.)

126. If the earnings were the same, I would rather be:
a. a lawyer,
b. uncertain,
c. a navigator or pilot.
127. "Better" is to "worst" as "slower" is to;
a. fast, b. best, c. quickest.
128. Which of the following should come next at the end of this row of letters: xooooxxooooxxx?
a. oxxx, b. oox, c. xooo.
129. When the time comes for something I have planned and looked forward to, I occasionally do not feel up to going.
a. true, b. in between, c. false.
130. I can work carefully on most things without being bothered by people making a lot of noise around me.
a. yes, b. in between, c. no.
131. I occasionally tell strangers things that seem to me important, regardless of whether they ask about them.
a. yes, b. in between, c. no.
132. I spend much of my spare time talking with friends about social events enjoyed in the past.
a. yes, b. in between, c. no.
133. I enjoy doing "daring," foolhardy things "just for fun."
a. yes, b. in between, c. no.
134. I find the sight of an untidy room very annoying.
a. yes, b. in between, c. no.
135. I consider myself a very sociable, outgoing person.
a. yes, b. in between, c. no.
136. In social contacts I:
a. show my emotions as I wish,
b. in between,
c. keep my emotions to myself.
137. I enjoy music that is:
a. light, dry, and brisk,
b. in between,
c. emotional and sentimental.
138. I admire the beauty of a poem more than that of a well-made gun.
a. yes, b. uncertain, c. no.
139. If a good remark of mine is passed by, I:
a. let it go,
b. in between,
c. give people a chance to hear it again.
140. I would like to work as a probation officer with criminals on parole.
a. yes, b. in between, c. no.
141. One should be careful about mixing with all kinds of strangers, since there are dangers of infection and so on.
a. yes, b. uncertain, c. no.
142. In traveling abroad, I would rather go on an expertly conducted tour than plan by myself the places I wish to visit.
a. yes, b. uncertain, c. no.
143. I am properly regarded as only a plodding, half-successful person.
a. yes, b. uncertain, c. no.
144. If people take advantage of my friendliness, I do not resent it and I soon forget.
a. true, b. uncertain, c. false.
145. If a heated argument developed between other members taking part in a group discussion, I would:
a. like to see a "winner,"
b. in between,
c. wish that it would be smoothed over.
146. I like to do my planning alone, without interruptions and suggestions from others.
a. yes, b. in between, c. no.
147. I sometimes let my actions get swayed by feelings of jealousy.
a. yes, b. in between, c. no.
148. I believe firmly "the boss may not always be right, but he always has the right to be boss."
a. yes, b. uncertain, c. no.
149. I get tense as I think of all the things lying ahead of me.
a. yes, b. sometimes, c. no.
150. If people shout suggestions when I'm playing a game, it doesn't upset me.
a. true, b. uncertain, c. false.

(End, column 6 on answer sheet.)

151. It would be more interesting to be:
a. an artist,
b. uncertain,
c. a secretary running a club.
152. Which of the following words does not properly belong with the others?
a. any, b. some, c. most.
153. "Flame" is to "heat" as "rose" is to:
a. thorn, b. red petals, c. scent.
154. I have vivid dreams, disturbing my sleep.
a. often,
b. occasionally,
c. practically never.
155. If the odds are really against something's being a success, I still believe in taking the risk.
a. yes, b. in between, c. no.
156. I like it when I know so well what the group has to do that I naturally become the one in command.
a. yes, b. in between, c. no.
157. I would rather dress with quiet correctness than with eye-catching personal style.
a. true, b. uncertain, c. false.
158. An evening with a quiet hobby appeals to me more than a lively party.
a. true, b. uncertain, c. false.
159. I close my mind to well-meant suggestions of others, even though I know I shouldn't.
a. occasionally, b. hardly ever, c. never.
160. I always make it a point, in deciding anything, to refer to basic rules of right and wrong.
a. yes, b. in between, c. no.
161. I somewhat dislike having a group watch me at work.
a. yes, b. in between, c. no.
162. Because it is not always possible to get things done by gradual, reasonable methods, it is sometimes necessary to use force.
a. true, b. in between, c. false.
163. In school I preferred (or prefer):
a. English,
b. uncertain,
c. mathematics or arithmetic.
164. I have sometimes been troubled by people's saying bad things about me behind my back, with no grounds at all.
a. yes, b. uncertain, c. no.
165. Talk with ordinary, habit-bound, conventional people:
a. is often quite interesting and has a lot to it,
b. in between,
c. annoys me because it deals with trifles and lacks depth.
166. Some things make me so angry that I find it best not to speak.
a. yes, b. in between, c. no.
167. In education, it is more important to:
a. give the child enough affection,
b. in between,
c. have the child learn desirable habits and attitudes.
168. People regard me as a solid, undisturbed person, unmoved by ups and downs in circumstances.
a. yes, b. in between, c. no.
169. I think society should let reason lead it to new customs and throw aside old habits or mere traditions.
a. yes, b. in between, c. no.
170. I think it is more important in the modern world to solve:
a. the question of moral purpose,
b. uncertain,
c. the political difficulties.
171. I learn better by:
a. reading a well-written book,
b. in between,
c. joining a group discussion.
172. I like to go my own way instead of acting on approved rules.
a. true, b. uncertain, c. false.
173. I like to wait till I am sure that what I am saying is correct, before I put forth an argument.
a. always,
b. generally,
c. only if it's practicable.
174. Small things sometimes "get on my nerves" unbearably, though I realize they are trivial.
a. yes, b. in between, c. no.
175. I don't often say things on the spur of the moment that I greatly regret.
a. true, b. uncertain, c. false.

(End, column 7 on answer sheet.)

176. If asked to work with a charity drive, I would
a. accept,
b. uncertain,
c. politely say I'm too busy.
177. Which of the following words does not belong with the others?
a. wide, b. zigzag, c. straight.
178. "Soon" is to "never" as "near" is to:
a. nowhere, b. far, c. away.
179. If I make an awkward social mistake, I can soon forget it.
a. yes, b. in between, c. no.
180. I am known as an "idea man" who almost always puts forward some ideas on a problem.
a. yes, b. in between, c. no.
181. I think I am better at showing:
a. nerve in meeting challenges,
b. uncertain,
c. tolerance of other people's wishes.
182. I am considered a very enthusiastic person.
a. yes, b. in between, c. no.
183. I like a job that offers change, variety, and travel, even if it involves some danger.
a. yes, b. in between, c. no.
184. I am a fairly strict person, insisting on always doing things as correctly as possible.
a. true, b. in between, c. false.
185. I enjoy work that requires conscientious, exacting skills.
a. yes, b. in between, c. no.
186. I'm the energetic type who keeps busy.
a. yes, b. uncertain, c. no.
187. I am sure there are no questions that I have skipped or failed to answer properly.
a. yes, b. uncertain, c. no.

(End of test.)

Appendix VII

TABLE 3.1
THE PRIMARY AND SECONDARY SOURCE TRAITS COVERED BY THE 16 PF TEST
AND THE NUMBER OF ITEMS IN EACH FORM TO MEASURE EACH PRIMARY

I. Primaries

Factor	Low Sten Score Description (1-3)	High Sten Score Description (8-10)	Number of Items in Each Form		
			A/B	C/D	E/F
A	<i>Reserved, detached, critical, aloof, still</i> Sizothymia	<i>Outgoing, warmhearted, easygoing, participating</i> Affectothymia	10	6	8
B	<i>Dull</i> Low intelligence (Crystallized, power measure)	<i>Bright</i> High Intelligence (Crystallized, power measure)	13	8	8
C	<i>Affected by feelings, emotionally less stable, easily upset, changeable</i> Lower ego strength	<i>Emotionally stable, mature, faces reality, calm</i> Higher ego strength	13	6	8
E	<i>Humble, mild, easily led, docile, accommodating</i> Submissiveness	<i>Assertive, aggressive, competitive, stubborn</i> Dominance	13	6	8
F	<i>Sober, taciturn, serious</i> Desurgency	<i>Happy-go-lucky, gay, enthusiastic</i> Surgency	13	6	8
G	<i>Expedient, disregards rules</i> Weaker superego strength	<i>Conscientious, persistent, moralistic, staid</i> Stronger superego strength	10	6	8
H	<i>Shy, timid, threat-sensitive</i> Threctia	<i>Venturesome, uninhibited, socially bold</i> Parmia	13	6	8
I	<i>Tough-minded, self-reliant, realistic</i> Harria	<i>Tender-minded, sensitive, clinging, overprotected</i> Premsia	10	6	8
L	<i>Trusting, accepting conditions</i> Alaxia	<i>Suspicious, hard to fool</i> Protension	10	6	8
M	<i>Practical, "down-to-earth" concerns</i> Praxernia	<i>Imaginative, bohemian, absent-minded</i> Autia	13	6	8
N	<i>Forthright, unpretentious, genuine but socially clumsy</i> Artlessness	<i>Astute, polished, socially aware</i> Shrewdness	10	6	8
O	<i>Self-assured, placid, secure, complacent, serene</i> Untroubled adequacy	<i>Apprehensive, self-reproaching, insecure, worrying, troubled</i> Guilt proneness	13	6	8
Q ₁	<i>Conservative, respecting traditional ideas</i> Conservativism of temperament	<i>Experimenting, liberal, free-thinking</i> Radicalism	10	6	8
Q ₂	<i>Group dependent, a "joiner" and sound follower</i> Group adherence	<i>Self-sufficient, resourceful, prefers own decisions</i> Self-sufficiency	10	6	8
Q ₃	<i>Undisciplined self-conflict, lax, follows own urges, careless of social rules</i> Low self-sentiment integration	<i>Controlled, exacting will power, socially precise, compulsive, following self-image</i> High strength of self-sentiment	10	6	8
Q ₄	<i>Relaxed, tranquil, torpid, unfrustrated, composed</i> Low ergic tension	<i>Tense, frustrated, driven, overwrought</i> High ergic tension	13	6	8

II. Secondaries

Symbol	Technical Title	Popular Label
Q _I	U.I.(T) 32, Exvia-vs.-Invia	Extraversion-vs.-Introversion
Q _{II}	U.I.(T) 24, Adjustment-vs.-Anxiety	Low Anxiety-vs.-High Anxiety
Q _{III}	U.I.(T) 19, Pathemia-vs.-Cortertia	Sensitivity, Emotionalism-vs.-Tough Poise
Q _{IV}	U.I.(T) 22, Subduedness-vs.-Independence (Promethean Will)	Dependence-vs.-Independence
Q _V	Discreetness*	
Q _{VI}	Prodigal Subjectivity*	
Q _{VII}	This second order is largely Factor B, but with minor loadings elsewhere, suggesting that it may be identifiable as fluid intelligence, the present Factor B being a mixture of fluid and crystallized intelligence. (This is U.I.(T)1 in the objective test factors.)	
Q _{VIII}	This factor is largely Factor G, but it also has some C and Q ₃ and is probably best regarded as the real superego factor, of which G is a special expression. It aligns with U.I.(T) 29 among objective test factors.	

*The definition of secondary factors Q_V and Q_{VI} is not yet good enough to allow identification or extensive use.

Appendix VIIIPROTOCOLS OF SEMANTIC DIFFERENTIALS

NAME..... Subject **A**

Rate on the 7 point scale as you would like yourself to be.

self accepting	<input type="radio"/>	self-reflecting
secure within self	<input type="radio"/>	insecure within self
anxious	<input type="radio"/>	not anxious
happy	<input type="radio"/>	unhappy
confident	<input type="radio"/>	not confident
lonely	<input type="radio"/>	not lonely
understand self well	<input type="radio"/>	don't understand self
reliable/trustworthy	<input type="radio"/>	unreliable/untrustworthy
free	<input type="radio"/>	restricted
cope with conflicts	<input type="radio"/>	can't cope with conflicts
understand others	<input type="radio"/>	don't understand others
understood by others	<input type="radio"/>	not understood by others
secure in social situations	<input type="radio"/>	insecure in social situations
trusting	<input type="radio"/>	untrusting
get on well with people	<input type="radio"/>	don't get on well
gregarious/outgoing	<input type="radio"/>	not gregarious
communicate well	<input type="radio"/>	superficial communication
cooperative	<input type="radio"/>	uncooperative
good ability to listen	<input type="radio"/>	poor ability to listen
supportive/caring	<input type="radio"/>	unsupportive/uncaring

NAME..... **A**

Rate on the 7 point scale as you think society would rate you, as a woman with a drinking problem.

self-accepting	<input type="radio"/>	self-rejecting
secure within self	<input type="radio"/>	insecure within self
anxious	<input type="radio"/>	not anxious
happy	<input type="radio"/>	unhappy
confident	<input type="radio"/>	not confident
lonely	<input type="radio"/>	not lonely
understand self well	<input type="radio"/>	don't understand self
reliable/trustworthy	<input type="radio"/>	unreliable/untrustworthy
free	<input type="radio"/>	restricted
cope with conflicts	<input type="radio"/>	can't cope with conflicts
understand others	<input type="radio"/>	don't understand others
understood by others	<input type="radio"/>	not understood by others
secure in social situations	<input type="radio"/>	insecure in social situations
trusting	<input type="radio"/>	untrusting
get on well with people	<input type="radio"/>	don't get on well
gregarious/outgoing	<input type="radio"/>	not gregarious
communicate well	<input type="radio"/>	superficial communication
cooperative	<input type="radio"/>	uncooperative
good ability to listen	<input type="radio"/>	poor ability to listen
supportive/caring	<input type="radio"/>	unsupportive/uncaring

NAME: _____

A

Rate on the 7 point scale as you think your family and friends would rate you on this scale.

self accepting	<input type="radio"/> - - - - -	self-rejecting
secure within self	<input type="radio"/> - - - - -	insecure within self
anxious	<input type="radio"/> - - - - -	not anxious
happy	<input type="radio"/> - - - - -	unhappy
confident	<input type="radio"/> - - - - -	not confident
lonely	- - - - -	not lonely
understand self well	- - - - - <input type="radio"/>	don't understand self
reliable/trustworthy	<input type="radio"/> - - - - -	unreliable/untrustworthy
free	<input type="radio"/> - - - - -	restricted
cope with conflicts	<input type="radio"/> - - - - -	can't cope with conflicts
understand others	<input type="radio"/> - - - - -	don't understand others
understood by others	<input type="radio"/> - - - - -	not understood by others
secure in social situations	<input type="radio"/> - - - - -	insecure in social situations
trusting	<input type="radio"/> - - - - -	untrusting
get on well with people	<input type="radio"/> - - - - -	don't get on well
gregarious/outgoing	- - - - - <input type="radio"/>	not gregarious
communicate well	<input type="radio"/> - - - - -	superficial communication
cooperative	<input type="radio"/> - - - - -	uncooperative
good ability to listen	<input type="radio"/> - - - - -	poor ability to listen
supportive/caring	<input type="radio"/> - - - - -	unsupportive/uncaring

NAME: _____

A

Rate on the 7 point scale how you see yourself.

self accepting	<input type="radio"/> - - - - -	self-rejecting
secure within self	<input type="radio"/> - - - - -	insecure within self
anxious	<input type="radio"/> - - - - -	not anxious
happy	<input type="radio"/> - - - - -	unhappy
confident	<input type="radio"/> - - - - -	not confident
lonely	<input type="radio"/> - - - - -	not lonely
understand self well	- - - - - <input type="radio"/>	don't understand self
reliable/trustworthy	<input type="radio"/> - - - - -	unreliable/untrustworthy
free	<input type="radio"/> - - - - -	restricted
cope with conflicts	<input type="radio"/> - - - - -	can't cope with conflicts
understand others	<input type="radio"/> - - - - -	don't understand others
understood by others	<input type="radio"/> - - - - -	not understood by others
secure in social situations	<input type="radio"/> - - - - -	insecure in social situations
trusting	<input type="radio"/> - - - - -	untrusting
get on well with people	<input type="radio"/> - - - - -	don't get on well
gregarious/ outgoing	- - - - - <input type="radio"/>	not gregarious
communicate well	<input type="radio"/> - - - - -	superficial communication
cooperative	<input type="radio"/> - - - - -	uncooperative
good ability to listen	<input type="radio"/> - - - - -	poor ability to listen
supportive/ caring	<input type="radio"/> - - - - -	unsupportive uncaring

NAME.....

Rate on the 7 point scale as you would like yourself to be.

self accepting	⊖ - - - - -	self-reflecting
secure within self	⊖ - - - - -	insecure within self
anxious	- - - - - ⊖	not anxious
happy	⊖ - - - - -	unhappy
confident	⊖ - - - - -	not confident
lonely	- - - - - ⊖	not lonely
understand self well	⊖ - - - - -	don't understand self
reliable/trustworthy	⊖ - - - - -	unreliable/untrustworthy
free	⊖ - - - - -	restricted
cope with conflicts	⊖ - - - - -	can't cope with conflicts
understand others	⊖ - - - - -	don't understand others
understood by others	⊖ - - - - -	not understood by others
secure in social situations	⊖ - - - - -	insecure in social situations
trusting	⊖ - - - - -	untrusting
get on well with people	⊖ - - - - -	don't get on well
gregarious/outgoing	⊖ - - - - -	not gregarious
communicate well	⊖ - - - - -	superficial communication
cooperative	⊖ - - - - -	uncooperative
good ability to listen	⊖ - - - - -	poor ability to listen
supportive/caring	⊖ - - - - -	unsupportive/uncaring

NAME.....

Rate on the 7 point scale as you think society would rate you. as a women with a drinking problem

self accepting	- ⊖ - - - - -	self-rejecting
secure within self	- - ⊖ - - - -	insecure within self
anxious	⊖ - - - - -	not anxious
happy	- - ⊖ - - - -	unhappy
confident	- - ⊖ - - - -	not confident
lonely	- ⊖ - - - - -	not lonely
understand self well	- ⊖ - - - - -	don't understand self
reliable/trustworthy	⊖ - - - - -	unreliable/untrustworthy
free	⊖ - - - - -	restricted
cope with conflicts	- - - - - ⊖ - -	can't cope with conflicts
understand others	⊖ - - - - -	don't understand others
understood by others	⊖ - - - - -	not understood by others
secure in social situations	- ⊖ - - - - -	insecure in social situations
trusting	⊖ - - - - -	untrusting
get on well with people	⊖ - - - - -	don't get on well
gregarious/outgoing	- ⊖ - - - - -	not gregarious
communicate well	⊖ - - - - -	superficial communication
cooperative	⊖ - - - - -	uncooperative
good ability to listen	⊖ - - - - -	poor ability to listen
supportive/caring	⊖ - - - - -	unsupportive/uncaring

NAME.....

Rate on the 7 point scale as you think your family and friends would rate you on this scale.

self accepting	- - - - - ⊖	self-rejecting
secure within self	- - - - - ⊖ -	insecure within self
anxious	- ⊖ - - - - -	not anxious
happy	- - - - - ⊖ -	unhappy
confident	- - - - - ⊖ -	not confident
lonely	⊖ - - - - - -	not lonely
understand self well	- ⊖ - - - - -	don't understand self
reliable/trustworthy	⊖ - - - - - -	unreliable/untrustworthy
free	⊖ - - - - - -	restricted
cope with conflicts	- - - - - ⊖ -	can't cope with conflicts
understand others	- - - - - ⊖ - -	don't understand others
understood by others	- - ⊖ - - - -	not understood by others
secure in social situations	⊖ - - - - - -	insecure in social situations
trusting	⊖ - - - - - -	untrusting
get on well with people	⊖ - - - - - -	don't get on well
gregarious/outgoing	- - ⊖ - - - -	not gregarious
communicate well	⊖ - - - - - -	superficial communication
cooperative	⊖ - - - - - -	uncooperative
good ability to listen	⊖ - - - - - -	poor ability to listen
supportive/caring	⊖ - - - - - -	unsupportive/uncaring

NAME.....

Rate on the 7 point scale how you see yourself.

self accepting	- - - - - ⊖ - -	self-rejecting
secure within self	- - - - - ⊖ -	insecure within self
anxious	- ⊖ - - - - -	not anxious
happy	- - - - - ⊖ -	unhappy
confident	- - - - - ⊖ -	not confident
lonely	⊖ - - - - - -	not lonely
understand self well	⊖ - - - - - -	don't understand self
reliable/trustworthy	⊖ - - - - - -	unreliable/untrustworthy
free	⊖ - - - - - -	restricted
cope with conflicts	- - - - - ⊖ - -	can't cope with conflicts
understand others	⊖ - - - - - -	don't understand others
understood by others	- - - - - ⊖ - -	not understood by others
secure in social situations	- ⊖ - - - - -	insecure in social situations
trusting	⊖ - - - - - -	untrusting
get on well with people	⊖ - - - - - -	don't get on well
gregarious/ outgoing	- ⊖ - - - - -	not gregarious
communicate well	⊖ - - - - - -	superficial communication
cooperative	- ⊖ - - - - -	uncooperative
good ability to listen	⊖ - - - - - -	poor ability to listen
supportive/ caring	⊖ - - - - - -	unsupportive/uncaring

NAME..... (C)

Rate on the 7 point scale as you think society would rate you with a drinking problem.

self accepting	- - - - 7 - -	self-rejecting
secure within self	- - - - - 7 -	insecure within self
anxious	- - - - 7 - - -	not anxious
happy	- - - - 7 - - -	unhappy
confident	- - - - 7 - - -	not confident
lonely	- - - - 7 - - -	not lonely
understand self well	- - - - 7 - - -	don't understand self
reliable/trustworthy	- - - - 7 - - -	unreliable/untrustworthy
free	- - - - 7 - - -	restricted
cope with conflicts	- - - - 7 - - -	can't cope with conflicts
understand others	- - - - 7 - - -	don't understand others
understood by others	- - - - 7 - - -	not understood by others
secure in social situations	- - - - 7 - - -	insecure in social situations
trusting	- - - - 7 - - -	untrusting
get on well with people	- - - - 7 - - -	don't get on well
gregarious/outgoing	- - - - 7 - - -	not gregarious
communicate well	- - - - 7 - - -	superficial communication
cooperative	- - - - 7 - - -	uncooperative
good ability to listen	- - - - 7 - - -	poor ability to listen
supportive/caring	- - - - 7 - - -	unsupportive/uncaring

NAME..... (C)

Rate on the 7 point scale how you see yourself.

self accepting	- - - - 7 - -	self-rejecting
secure within self	- - - - - 7 -	insecure within self
anxious	- - - - 7 - - -	not anxious
happy	- - - - 7 - - -	unhappy
confident	- - - - 7 - - -	not confident
lonely	- - - - 7 - - -	not lonely
understand self well	- - - - 7 - - -	don't understand self
reliable/trustworthy	- - - - 7 - - -	unreliable/untrustworthy
free	- - - - 7 - - -	restricted
cope with conflicts	- - - - 7 - - -	can't cope with conflicts
understand others	- - - - 7 - - -	don't understand others
understood by others	- - - - 7 - - -	not understood by others
secure in social situations	- - - - 7 - - -	insecure in social situations
trusting	- - - - 7 - - -	untrusting
get on well with people	- - - - 7 - - -	don't get on well
gregarious/ outgoing	- - - - 7 - - -	not gregarious
communicate well	- - - - 7 - - -	superficial communication
cooperative	- - - - 7 - - -	uncooperative
good ability to listen	- - - - 7 - - -	poor ability to listen
supportive/ caring	- - - - 7 - - -	unsupportive uncaring

NAME.....(C).....

Rate on the 7 point scale as you would like yourself to be.

self accepting	- 7 - - - - -	self-reflecting
secure within self	+ - - - - -	insecure within self
anxious	- - - - - 7 -	not anxious
happy	+ - - - - -	unhappy
confident	+ - - - - -	not confident
lonely	- - - - - 7 -	not lonely
understand self well	- 7 - - - - -	don't understand self
reliable/trustworthy	- 7 - - - - -	unreliable/untrustworthy
free	- 7 - - - - -	restricted
cope with conflicts	+ - - - - -	can't cope with conflicts
understand others	- 7 - - - - -	don't understand others
understood by others	- 7 - - - - -	not understood by others
secure in social situations	- 7 - - - - -	insecure in social situations
trusting	+ - - - - -	untrusting
get on well with people	+ - - - - -	don't get on well
gregarious/outgoing	- - - 7 - - -	not gregarious
communicate well	+ - - - - -	superficial communication
cooperative	+ - - - - -	uncooperative
good ability to listen	+ - - - - -	poor ability to listen
supportive/caring	+ - - - - -	unsupportive/uncaring

NAME.....(C).....

Rate on the 7 point scale as you think your family and friends would rate you on this scale.

self accepting	- - - - - 7 -	self-reflecting
secure within self	- - - - - 7 -	insecure within self
anxious	- - - - - 7 -	not anxious
happy	- - - - - 7 -	unhappy
confident	- - - - - 7 -	not confident
lonely	- - - - - 7 -	not lonely
understand self well	- - - - - 7 -	don't understand self
reliable/trustworthy	- - - - - 7 -	unreliable/untrustworthy
free	- - - - - 7 -	restricted
cope with conflicts	- - - - - 7 -	can't cope with conflicts
understand others	- - - - - 7 -	don't understand others
understood by others	- - - - - 7 -	not understood by others
secure in social situations	- - - - - 7 -	insecure in social situations
trusting	- - - - - 7 -	untrusting
get on well with people	- - - - - 7 -	don't get on well
gregarious/outgoing	- - - - - 7 -	not gregarious
communicate well	- - - - - 7 -	superficial communication
cooperative	- - - - - 7 -	uncooperative
good ability to listen	- - - - - 7 -	poor ability to listen
supportive/caring	- - - - - 7 -	unsupportive/uncaring