

STRESS IN PRISON

A Thesis Presented to  
The Faculty of Graduate Studies  
University of Manitoba

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Social Work

by

Eugene Gubernachuk

March 1981

STRESS IN PRISON

BY

EUGENE GUBERNACHUK

A thesis submitted to the Faculty of Graduate Studies of  
the University of Manitoba in partial fulfillment of the requirements  
of the degree of

MASTER OF SOCIAL WORK

© 1981

Permission has been granted to the LIBRARY OF THE UNIVERSITY OF MANITOBA to lend or sell copies of this thesis, to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film, and UNIVERSITY MICROFILMS to publish an abstract of this thesis.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

TABLE OF CONTENTS

	Page
ABSTRACT . . . . .	ii
ACKNOWLEDGEMENTS . . . . .	iv
LIST OF TABLES . . . . .	v
LIST OF FIGURES . . . . .	vii
Chapter	
I INTRODUCTION . . . . .	1
Stress of Prison . . . . .	1
The Question of Stress and Anxiety . . . . .	5
State-Trait Anxiety Inventory . . . . .	7
Description of Headingly Prison . . . . .	10
The Question of Location. . . . .	23
Characteristics of Prison Population . . . . .	25
Summary of Questions. . . . .	37
II METHOD . . . . .	39
Subjects. . . . .	39
Procedure . . . . .	42
III RESULTS . . . . .	46
IV DISCUSSION . . . . .	67
V CONCLUSION . . . . .	74
BIBLIOGRAPHY . . . . .	79
APPENDIX A . . . . .	84
APPENDIX B . . . . .	86

## ABSTRACT

The purpose of this research was to investigate stress and its resulting anxiety in a prison setting. The primary experimental group was prisoners serving a sentence at the Headingly Correctional facility in Manitoba. Anxiety level was measured with the State-Trait Anxiety Inventory developed by Spielberger. State anxiety being that which was situational and dependent on the perceived level of threat of the stressful situation. Trait anxiety being the general anxiety level or personality type. Control groups were a group of prisoners from the Brandon Correctional facility, Correctional officers and Social work Students. Some of the variables which were felt could affect anxiety level were: location, race, age, marital status, number of children, and time.

The results showed that this particular prison was a very stressful environment and that anxiety level was influenced by where the prisoner was located. It appeared that the stricter the security and the less allowable freedom, the higher, the anxiety. Interestingly, the prisoners in the camp facility, located in the Whiteshell Provincial Park, showed one of the lowest levels of anxiety. The Main Building, where security is tightest, as predicted, elicited the highest anxiety levels. Time proved to be an important

variable in that the beginning of a prisoner's sentence was the most stressful or anxiety provoking. As the prisoner proceeded through his sentence, the anxiety level steadily dropped. The lowest point being when he returned to the community. This result was significantly consistent through three different measuring techniques. Other variables such as race, age, marital status and children had no significant effect on a prisoner's anxiety level. It was found that prisoners at Brandon, which is a new and modern facility, showed anxiety levels just as high as the tightest security areas at Headingly. With correctional officers it was found that their anxiety levels were higher, but not significantly, than a control group of students and not as high as prisoners.

The writer concluded that stress in prison was an accepted and little studied phenomenon. He put forward the notion that the possible ineffectiveness of treatment programs could be related to this constant high stress level. It was felt that more effort should be invested in treatment programming where anxiety levels were lower and in alternatives to imprisonment for some offenders which would be less expensive and probably more, or at least, just as effective.

## ACKNOWLEDGEMENTS

The writer would like to acknowledge the assistance provided by the thesis committee members, Dennis Bracken and Rick Linden. Also, the Directorate of Corrections in the Province of Manitoba for permission to conduct this study and the prisoners and staff at Headingly Correctional Institution who volunteered to participate. Special thanks to Dr. Len Spearman, my thesis advisor, with whose patience and guidance this document was made possible.

## LIST OF TABLES

Number	Title	Page
1	Admissions by Marital Status . . . . .	11
2	Admissions by Race . . . . .	11
3	Admissions by Age . . . . .	12
4	Sentenced Admissions by Nature of Offence . . . . .	13
5	Length of Stay . . . . .	14
6	Length of Sentence . . . . .	15
7	General Variables of Headingly Sample .	40
8	Race . . . . .	40
9	Point of Incarceration . . . . .	41
10	Marital Status . . . . .	41
11	Children . . . . .	41
12	State-Trait Score Means by Location . .	47
13	State Group Differences Between Locations . . . . .	50
14	Mean Scores of Prisoners and Controls. .	52
15	State Score Differences Between Experimental and Control Groups . . .	53
16	Trait Score Differences Between Experimental and Control Groups . . .	53
17	Mean Scores at Point of Incarceration. .	55
18	State Anxiety Differences Between Points of Incarceration . . . . .	56
19	Anxiety Level on Longitudinal Study. . .	57

Number	Title	Page
20	Longitudinal Study of State Anxiety Scores . . . . .	58
21	State, Trait Means, Based on Time Served . . . . .	60
22	State Anxiety Difference Between Time Served . . . . .	61
23	State, Trait Anxiety Means by Length of Sentence . . . . .	62
24	State, Trait Means Based on Previous Criminal History . . . . .	63
25	State, Trait Mean Scores by Race . . . . .	65
26	State, Trait Mean Scores for Age . . . . .	65
27	State, Trait Mean Scores for Marital Status . . . . .	66
28	State, Trait Mean Scores for Number of Children . . . . .	66



LIST OF FIGURES

Number	Title	Page
1	Fluctuations of Anxiety Scores by Location . . . . .	48
2	Anxiety Fluctuations Over Time (POI). .	55
3	Anxiety Fluctuations Over Time (Long) ..	57
4	Anxiety Fluctuations Over Time Served .	60

## Chapter I

### INTRODUCTION

#### Stress of Prison

Prisons are considered to be very stressful and anxiety producing environments (Goffman, 1961; Hawkins, 1968; Sykes, 1958; Toch, 1977). Johnson 1976 states:

The man in prison finds his career disrupted, his relationships suspended, his aspirations and dreams gone sour. Few prisoners have experienced comparable stress in the free world, or have developed coping strategies or perspectives that shield them from prison problems (p.1).

Indeed, many criminologists cite the first purpose of incarceration is to "punish" the offender, followed by the "deterrent" effect on others and finally the "treatment" and/or rehabilitative aspect (McGrath, 1965; Smith and Fried, 1974).

Within the prison environment there are many threats to one's physical and emotional well-being which may be viewed as stressful or anxiety producing (to varying degrees). Some of these include; physical assaults, homosexuality, harassment, confinement in solitary, overcrowding, denial of passes and parole, worry over well-being of family outside of prison, etc. This is the reality of

prison life and every prisoner must cope in his own way. At one extreme there are prisoners who appear to function well; whereas others do not and resort to attempting suicide, self-mutilations, or escape (Danto, 1973; Toch, 1977).

These negative aspects of prison life go beyond the threat to one's person. Prisons are usually inhospitable places where privacy, cleanliness and facilities for recreation, etc. are at a premium. One's movements and behavior are constantly monitored. Prisoners are continually being told what to do, when to do it and where to go by authority figures with little or no explanation. All these factors, to some degree, either individually or cumulatively, contribute to the stressful nature of the prison experience.

Studies have shown that varying degrees of stress have negative effects on learning, perception and behaviour (Appley and Trumbell, 1976; Bosowitz et al, 1955; Selye, 1956, 1976; Spielberger and Sarason, 1974; Trimmer, 1970). It has been found that at low levels of anxiety, there is a general alerting of the individual, an increase in vigilance. In this state there is an increased sensitization to outside events and an increased ability to cope with danger. The individual is in a state of preparedness. As

stress increases and anxiety mounts, the person becomes less capable of mastery over the situation. Behaviour is found to lose its flexibility. Individuals respond in more habitual and thus safer ways. Anything novel becomes threatening and the ability to appraise and judge accurately is reduced.

One emphasis, which has been popular over the past twenty years in penology, has been to "treat" the offender within the prison, with the purpose of attempting to fix whatever is wrong with him and/or provide him with new skills or better training so that he will no longer resort to criminal behaviour. Criminologists have introduced many new programs in prisons generally labelled "treatment" or "Rehabilitation" programs to assist and change the prisoner. Some of these include: counselling, in its many forms (groups, one-to-one, etc.), psychiatry and psychology, work programs, education, trades training. To the consternation of some penologists there have been recent studies which indicate that many of these programs are not only ineffectual but are no better than doing nothing at all (Conrad, 1975; Lipton, Martinson and Wilks, 1975; Martinson, 1974). Critics of their finding include (Chaneles, 1976; Halleck and Witte, 1977; McDougall, 1976). Their attacks center around data collection techniques and analysis of the data. Also, they believe that although certain programs are not effective

one cannot extrapolate to all types of treatment programs in prisons. However, despite the criticism, one must attach at least some credibility to the former research and, if so, the obvious question becomes "why do some investigators find prison rehabilitation programs ineffectual?" It is an important question simply by the fact that millions of dollars and thousands of man hours are invested in these types of treatment programs within prisons. Possibly, this investment can be better spent in other aspects of prison reform.

Cross (1971) relates to the futility of incarcerating offenders for protracted periods in order that they may be trained or treated. He states:

We must now face the fact that if what we want is training, it had better take place out of prison, we can no longer delude ourselves into thinking that we are getting the best of both worlds by deterring the offender and others, by depriving him of his liberty and at the same time, training him to lead a useful life (pp.165-166).

The writer wishes to study one aspect of the prison situation which may offer some clarification to the above dilemma. This may be too strong a statement, however, it is hoped to pose at least some poignant and interesting questions. The phenomenon to be researched in this study is "Stress in Prison", more specifically, stress and its resulting anxiety in the Headingly Correctional Institution, in the Province of Manitoba, Canada.

The Question of Stress and Anxiety

The concept of stress was first introduced into the life sciences by endocrinologist Hans Selye in 1936 and elaborated in successive papers leading to a full theoretical statement in book form in 1950 (Appley and Trumbell, 1967). As with any new area of study and due to the volume of research precipitated by Selye, the problem of definition arose. Selye 1956, 1976 defined stress in medical terms as:

The rate of wear and tear on the human body (p.1), and as:  
The non-specific response of the body to any demand (p.55)...Whether it is caused by or results in pleasant conditions (p.74).

Bosowitz et al, (1955) reports:

Stress is a threat of fulfillment of basic needs, the maintenance of regulated (homeostatic) functioning and to growth and growth development (p.7,8).

Cofer and Appley (1964) state:

Stress is the state of the organism where he perceives that his well being (or integrity) is endangered and that he must divert all his energies to its protection (p.453).

To continue in this manner would be futile as the literature abounds with hundreds of definitions. The term "anxiety" has gone through much the same evaluation. May (1950) reported:

Anxiety is the apprehension cued off by a threat to some value which the individual holds essential to his existence as a personality (p.7 in Bosowitz).

Bosowitz et al, (1955) states:

Anxiety as an affect must be defined as a conscious reportable dread of impending an unlocalized disaster (p.3).

Fischer (1969) in discussing a phenomenology of anxiety said:

There are almost as many definitions of anxiety as there are papers about it (p:105).

Spielberger (1974), one of the most influential researchers in this field points out that one important source of ambiguity and confusion in theory and research on anxiety stems from the fact that the terms stress and anxiety are often used interchangeably. He explains that the term stress has been used to refer to both the dangerous stimulus conditions that produce anxiety reactions and the behavioural and physiological changes that are produced by stressful stimuli. He proposes that the term "stress" and "threat" be used to denote different aspects of a sequence of events that result in "anxiety". Therefore, stress denotes the objective stimulus properties of a situation, which the individual perceives as a threat, resulting in an anxiety state. Spielberger (1974) defines a state of anxiety;

In terms of intensity of subjective feelings of tension, apprehension, nervousness and worry that are experienced by an individual at a particular moment, and by heightened activity of the autonomic nervous system that accompanies these feelings. Anxiety states vary in intensity and duration and fluctuate over time as a function of the amount of stress that impinges upon an individual and the individual's interpretation of the stressful situation as personally dangerous or threatening (p.5).

Spielberger's view of stress and anxiety are to be those adopted in this study. Simply:

Stress of	----->	Perception of Danger	----->	Increase in
Imprisonment		(Threat) Dependent		Anxiety State
(Stimuli)		upon each Individual		(Response)

Spielberger developed a self report inventory to measure anxiety level. The following is a discussion of this inventory.

#### State-Trait Anxiety Inventory

Since anxiety has both psychological and physiological components, both have been investigated. Various measures of autonomic nervous system activity have been employed to assess the physiological aspects of anxiety states (Lader and Martes, 1971; Levitt, 1967; Martin, 1961; Sarason and Spielberger, 1976). The galvanic skin response and change in heart rate appear to be the most popular



measures, but blood pressure, muscle action potential, sweating palms and respiration rates have also been given attention (D'Atri and Ostfeld, 1975). All these measures, to various degrees, appear to alter during an anxiety response triggered by stress stimuli.

Efforts to measure tension and worry that define the phenomenological components of anxiety states have emerged from the factor analytic studies of Cattell and Schier (1958, 1964). These investigations identified two distinct anxiety factors which they labelled state and trait anxiety. The trait anxiety factor was interpreted as measuring stable individual differences in a unitary, relatively permanent personality characteristic. The state anxiety factor measured anxiety conditions that fluctuated over time precipitated by perceived stressful events. Thus, if a person were anxious now because of a stressful event he would have a high state anxiety but if he was characteristically anxious his state anxiety would be high initially and become more elevated upon the introduction of further stress. To use the example of a prison situation, one's state anxiety might be affected by variables such as crowding, harassment, fear of assault, homosexuality, etc. This might fluctuate according to the severity of each variable and its perception. However, the trait anxiety should not be influenced.

The State-Trait Anxiety Inventory was developed by Spielberger for the measurement of these two anxiety levels. The test was developed from three widely used anxiety scales, the IPAT Anxiety Scale, Cattell and Schier, (1963); the Taylor-Manifest Anxiety Scales, (1953) and the Welsh Anxiety Scale, (1956). This test has been widely used as a research tool in the study of stress and anxiety and is one of the more prevailing tests of its kind in the market, Spielberger (1970). The STAI (Appendix A) is easily administered and can be given to individuals or groups. As illustrated in the Manual (1970) reliability and validity measures are more than acceptable with good correlations amongst other tests of similar purpose.

Test-retest reliability of male subjects who were included in the normative sample of college students was .84 for the Trait Scale. State scale correlations were low, as anticipated as this should reflect the influence of unique situational factors existing at the time of testing. The STAI also showed strong correlation when compared to the IPAT Anxiety Scale (.76) and the Manifest Anxiety Scale (.79).

The STAI was the primary testing tool in measuring the anxiety levels of the various groups in this study, the major groups being, the prisoner's incarceration in the Headingly Institution. In the following sections the

writer will discuss the prison, its inmates and the questions to which this study will address itself.

### Description of Headingly Prison

Headingly prison is the main correctional facility for the Province of Manitoba. It sits ten miles outside the Provincial capital city of Winnipeg and its main building was constructed in 1930. Three additional annexes, adjacent, but not connected to the main building, were constructed in the 1950's and only recently renovated. A bush camp at Bannock Point in Whiteshell Provincial Park was built in 1975. The maximum capacity of the total Headingly facility is 500. There are three other smaller correctional facilities in Manitoba, which cater primarily to local remanded and convicted felons. These are at Brandon, Dauphin and the Pas.

The total number of prisoners sentenced to Headingly in 1980 was 1,942. The number of prisoners that arrived at Headingly as remands i.e.: awaiting court disposition, was 319. Therefore the total intake admissions for 1980 was 2261 men. Major characteristics of the prisoners admitted to Headingly in 1980 are illustrated in Tables 1 to 6. It should be noted that those remands held at Headingly are persons who have not been granted bail or have not been released on their own recognizance by the courts, pending

Table 1  
Admissions by Marital Status

Marital Status	Total	Percentage
Single	1318	58.30
Married & Commonlaw	723	32.00
Separated, Divorced, Widowed	220	9.70
	<u>2261</u>	

Table 2  
Admissions by Race

Race	Total	Percentage
White	1379	60.90
Native	637	28.17
Metis	223	9.86
Other	22	0.97
	<u>2261</u>	

Table 3  
Admissions by Age

Age Group	Total	Percentage
17 yrs. + under	32	1.42
18 - 22	790	34.94
23 - 27	587	25.96
28 - 32	316	13.98
33 - 37	185	8.18
38 - 42	107	4.73
43 - 47	111	4.91
48 + over	113	4.99
	<u>2261</u>	

Table 4

## Sentenced Admissions by Nature of Offence

Nature of Offence	Total	Percentage
Attempt Murder	4	.21
Rape	6	.31
Other Sexual Offences	40	2.06
Wounding	11	.57
Assault	97	4.99
Robbery	65	3.35
Break and Enter	215	11.07
Theft Auto	6	.31
Theft Over \$200.	110	5.66
Theft Under \$200.	203	10.45
Possession of Stolen Goods	41	2.11
Frauds	57	2.94
Offensive Weapon	29	1.49
Driver Impaired, Suspended, or Disqualified	671	34.55
Narcotic Control Act	134	6.90
Food and Drug Act	9	.46
Breach of Liquor Control Act	116	5.97
Highways Traffic Act	60	3.08
Other Provincial Statutes	36	1.85
Immigration Act	6	.31
Municipal By-laws	14	.72
Parole Violations	9	.46
Maintenance Act	3	.15
	<u>1942</u>	

Table 5  
Length of Stay

Length of Stay	Total	Percentage
7 days + under	339	17.46
8 days to 1 month less 1 day	569	29.30
1 month to 2 months less 1 day	328	16.89
2 months to 4 months less 1 day	287	14.78
4 months to 6 months less 1 day	174	8.96
6 months to 9 months less 1 day	131	6.75
9 months to 12 months less 1 day	68	3.50
12 months and over	46	2.37
	<u>1942</u>	

Note - This Table refers to the amount of time served by sentenced prisoners.

Table 6  
Length of Sentence

Length of Sentence	Total	Percentage
7 days + under	120	6.18
8 days to 1 month less 1 day	487	25.08
1 month to 2 months less 1 day	287	14.78
2 months to 4 months less 1 day	333	17.14
4 months to 6 months less 1 day	222	11.43
6 months to 9 months less 1 day	143	7.36
9 months to 12 months less 1 day	136	7.00
12 months to 15 months less 1 day	86	4.43
15 months to 18 months less 1 day	67	3.45
18 months to 2 yrs. less 1 day	61	3.14
	<u>1942</u>	

Note - This Table refers to the sentence imposed by the courts.



trial and/or sentencing. Thus, they are classified as maximum security and are housed in the Main Building.

New arrivals to Headingly are transported from the Remand Center in Winnipeg or the Vaughan Street facility after appearing in Court. They may be detained at the Remand Center for only a few hours or a few days, pending transfer to Headingly. They arrive, as a group, via Institutional bus, in the early afternoon. They all arrive handcuffed individually or to another prisoner. Upon entering they are processed in a location known as New Intake where they spend their first 24 hours. Immediately upon arrival, prisoners are seen by a nurse to detect any major medical problems, and by an Intake Officer who completes an admission form, to gather particular information (age, marital status, physical characteristics, etc.). All his personal property and clothing are removed and recorded. He then showers, is given prison garb and, if sentenced, is placed in the Intake holding area, where he spends the night. If he is a Remand prisoner, he is immediately taken to one of four Remand locations in another part of the Main Building. During that first evening all sentenced new arrivals are seen by an Intake Officer individually. The purpose being:

1. To get more information from the inmate to produce an Initial Classification Report.

2. Respond to questions from the prisoner.

3. Allow phone calls to relatives, lawyer, etc.

The following morning this Classification is reviewed by the Placement Officer and Supervisor of Intake. Each man is then seen by a Doctor and by early afternoon the prisoner is placed in a particular work and living location. This placement is primarily based upon:

1. Security status of prisoner (nature of offence, length of sentence, previous criminal history, previous escapes, etc.).
2. Knowledge of prisoner from previous incarcerations.
3. Prisoner's own preference.
4. Amount of room available. That is, the prisoner may be a first offender and should be placed in an Annex, however, that facility may be filled necessitating another location.

Headingly prison is actually comprised of a number of distinct units, each with its own level of security and amount of allowable freedoms. The following is a general category breakdown:

- I Main Building (Total capacity for sentenced inmates = 160.)

This is the original and oldest structure of the prison. The three prime areas are:

1. Dormitories (N = 80). These are long rooms, with a number of double bunk beds, resembling military barracks.

2. Blocks (N = 50). These again are large rooms, however, they are partitioned into individual cells, each with its own sink, toilet, bed and desk. The Blocks offer a certain degree of privacy and are usually the most preferred areas in the main building.

3. New Intake (N = 16). As described earlier, this is where the sentenced new arrivals spend their first 24 hours. It is a dormitory setting.

Prisoners, housed in the Main Building are not allowed to leave this facility under ordinary circumstances. Some inmates work in the trades building which is approximately 50 yards away. However, when inside the Trades building they must remain inside and they can only return to the Main Building at lunch and before the supper count. At these times, they return in a group and under escort. Thus, security in the Main Building is quite stringent. Inmates are not allowed to walk around freely and if they are not at work they must be within their own location. These prisoners can participate in all the internal programs available such as counselling, A.A. groups, school, recreation, general employment. They can, at any point in their sentence, leave this facility to one of the Annexes or "Camp, but because of a number of factors they are initially housed in this building. Some of these include:

1. Security status, i.e.: type of offence, considered a trouble maker, length of sentence, escape risk, previous criminal history.
2. Length of sentence. Longer termers generally remain in the main building for a time.
3. No room in the other prison facilities. Because of overcrowding, this occurs quite often.

## II Annex A (N = 60-80)

This facility is approximately 50 yards from the Main Building. Prisoners live in a Dormitory style setting. Men in this Annex are primarily used to work on outside projects around the prison grounds. This would include working in the garden and tree farm in the summer. They only go to the Main Building for eating, recreation, school, and some inside employment. Security is much less stringent and for most of the day and evening they can wander about any part of this Annex. There are only two correctional officers on duty, at any given time. Inmates can be sent to this Annex immediately after their stay in Intake or after they have spent some time in the Main Building. This would result from a recommendation by the man's counsellor, coupled with security clearance. The two populations do not differ significantly, however, some general differences are:

1. Annex A prisoners are not considered security risks.
2. As a rule, they have slightly shorter sentences.
3. There are usually more first offenders in Annex A than the Main Building.
4. Annex A residents can be used on outside work projects around the prison grounds such as the garden or tree farm.

### III Annex B (N = 30-40).

Annex B is similar in structure to Annex A. The residents are housed in Dormitory style, however, Annex B has a large common room with table tennis and card tables. Annex B is much less crowded than Annex A as its maximum capacity is 40 even though the two facilities are roughly the same size. At the time of this study Annex B was utilized as a work release facility. Most of the prisoners were allowed to be out of the prison during the day at their own employment. This could be in the City of Winnipeg at various jobs, in the Portage School as a volunteer, or at private farms around the prison during the summer. They must return to prison at a specified hour daily. Also part of their earnings from these jobs can be sent home to their families. Their contact with the Main Building is even less than residents in Annex A and they also have the freedom of their entire Annex. Only two correctional officers are present

at any given time. Prisoners, at any point in their sentence, can be considered for this program. Therefore, Annex B inmates could have originally started their sentence in the Main Building or Annex A. They were selected on the basis of:

1. Performing well during initial part of sentence, i.e.: (successfully competed school or alcohol program, etc.).
2. Not being a security risk.
3. As part of treatment program, i.e.: might be in later part of sentence and is given the opportunity to earn some monies prior to release.
4. As a testing ground prior to a pre-release program in the community.

#### IV Bannock Point Camp (N = 40-50).

This is a facility in the Whiteshell Provincial Park. It is fairly modern with single and double rooms. Prisoners have the freedom of the grounds. There are no programs available in the Camp and it is strictly work oriented. If a man is deemed lazy or refuses to work he is sent back to the Main Building in Headingly. The prisoners are used to clean and maintain tourist grounds, cut brush, build new camp grounds. They are also used to assist in fire fighting for which they are paid the going rate. Thus they can send a good portion of this money home. During non-working times the man must remain in their camp building, unless he

has specific duties outside. However, inmates are allowed to wander around the camp grounds periodically, so long as they do not leave its perimeter. At times inmates are even allowed to fish and swim, during the summer months. The main selection criterion is security, i.e.: escape risk. Men can be selected for Camp at any point in their sentence. This is usually done by a counsellor as part of the inmate's treatment plan, or by the inmate's own request.

V Out of Prison - on Pre-release Temporary Absence  
(N = 20-80).

These prisoners are outside the prison, living in the community, at home, or in a Halfway House facility. In effect, they are serving the remainder of their sentence on the street. All prisoners are given consideration for this program and those chosen can serve up to their last three months on the street. Their freedom is almost total and their only restrictions are:

1. Do not commit any crimes.
2. If in a halfway house, follow the rules.
3. Don't leave the area (Winnipeg).
4. Those living at home must sleep at a Center in Winnipeg one night out of two weeks, called the Community Release Center.
5. They must check into this center, just for reporting purposes approximately twice a week.

Obviously, prisoners who have done well during their sentences, first offenders and shorter termers make up a good proportion of this group. Individuals, who have constantly been on charge, (trouble in the institution), considered a threat to the community or are deemed an escape risk would not normally be selected. They are checked regularly by community correctional officers and workers who maintain some contact with families, employers, etc.

The writer will now discuss several factors which may be related to stress in prison.

#### The Question of Location

To summarize, the major locations of prisoners at the time of this study were:

- I Main Building - 1. New Intake
  - 2. Dormitories
  - 3. Blocks
- II Annex A
- III Annex B
- IV Camp
- V Out of Prison - on Pre-release Temporary Absence.

Most criminologists when discussing high levels of stress in prison are making reference to maximum security institutions. These facilities are usually subject to large populations, lengthy sentences, crowding, strict



discipline, minimal amount of freedom of movement, etc. (Goffman, 1961; Hawkins, 1976; Johnson, 1976; Sykes, 1958; Wheeler, 1971). It is the writer's contention that the conditions under which prisoners reside in the Main Building, especially the dormitories, more closely approximate these negative aspects than other locations in the prison. The Main Building is more densely populated with prisoners, the security is strictest, and amount of allowable freedom of movement is the least of any other location. Nacci et al (1977) state:

Population density level and confinement effects are inextricably linked in correctional settings and there is evidence that both can increase stress-related biological processes...High population density may increase arousal levels; the effects are particularly dramatic when subjects are confined to a geographic area for an extended period (p.26).

From the writer's own experience, assaults between prisoners appears to be more prevalent in the Main Building. Also, historically any group disturbances, such as sit downs, prisoners refusing to work, etc., are primarily located in the Main Building. D'Atri (1975) compared blood pressure levels of prisoners who were housed in crowded dormitories to individual or two man cells. He found that Systolic blood pressure was significantly higher for men living in dormitories. McGain et al (1976) calculated more illness complaints

in dormitories than cells. Nacci et al (1972) reports a correlation between population density and inmate misconduct.

It is believed that not only is the entire prison experience stressful and anxiety provoking, but that where a prisoner resides in the prison is also important. Different locations with varying population densities, levels of security, etc. should evoke different anxiety levels. Therefore, the first two questions the writer will address himself to are:

1. Is Headingly prison an anxiety provoking experience for its inmates?

2. Does where a prisoner reside have an effect on his anxiety level?

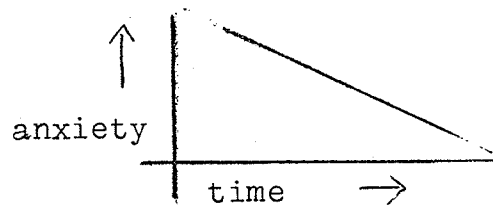
#### Characteristics of Prison Population

##### (1) Point of Incarceration -

At any given point in time, prisoners are at different stages in their sentence. Some are just beginning their sentences whereas others have completed a number of months of incarceration and are near completion. Does the actual process of "doing time" effect one's anxiety level over time? A number of events, perceptions, associations etc., can effect a prisoner during the course of his sentence in either a positive or negative manner. Clemmer (1940) developed a concept titled "prisonization" which was quickly adopted in the vocabulary of early criminologists. In general, the term meant the taking on, in a greater or

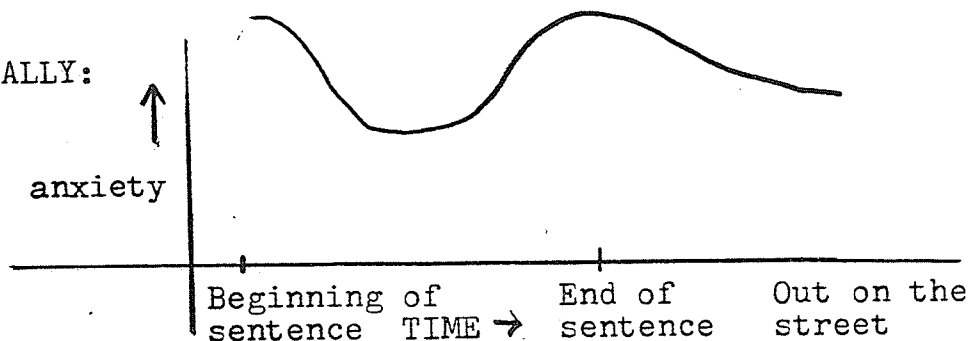
less degree, the mores, customs, argot, and general cultural attitude of the prison. Clemmer associated "prisonization" to "assimilation" in that the longer one remained in prison the more likely he would become "prisonized". This adaptation to prison life was viewed as a necessary survival experience. Sykes and Messinger (1960) felt that this was an encouraged socialization by other inmates and not adapting, led to material and sexual deprivation, enforced intimacy and status degradation. They described the above as the "Pains of Imprisonment". It was emphasized that, as a prisoner moved toward the solidarity demanded by the inmate code these pains of imprisonment would be lessened. Accepting this reasoning, one could assume that after the initial shock of incarceration, many prisoners, out of necessity, would adapt, to diminish or soften the negative aspects of prison. In terms of anxiety, one would expect a continuing decrease in anxiety level as time went on and assimilation increased.

GRAPHICALLY:



Wheeler (1971), in a critique of Clemmer's findings, felt that Clemmer did not observe appropriately the entire sentence. He found that opposition to staff norms and other conforming to inmate care behaviour, was high during the initial and final stages of incarceration but quite low during the middle phases. These findings were supported by Garabedion (1963) and Glaser (1964). A U-shaped pattern was found to be in effect. In terms of anxiety, therefore, following Wheeler's argument one might expect a U-shaped pattern over time. That is, the initial stage of incarceration might be perceived as very stressful. This could diminish as one becomes more oriented or prisonized, but may increase again as one nears the end of the sentence. This could be through fear or anticipation of release or one of a hundred other reasons. These might include the anticipation of pulling the next "score", finding a job, fulfilling marital obligations, etc.

GRAPHICALLY:



To continue this argument, Oleski (1977) reported that anxiety, as measured by the IPAT Anxiety Scale, increased with time among jail offenders. However, Dyer (reported in Krug, Schier and Cattell, 1976) found a decrease in anxiety level. Interestingly, when Bonta and Nanckwell (1980) attempted to replicate these studies, they found neither an increase nor a decrease in anxiety level over time. Therefore, the third question the writer wishes to address himself to in this study is:

3. What will be the effect of time on a prisoner's level of anxiety?

(2) Degree of Criminality -

It can be argued generally, that for individuals who have never experienced a prison situation, their view of prison life is at best derived from appropriate academic literature or, at worse, hearsay and the media. For most first offenders it is felt the latter to be the case. Those who have served previous prison terms have some idea of what to expect. Before sentencing, if on bail, etc., they can prepare their families and get their affairs in order. The typical question from the first offender is "how can I get out?" From the recidivist, it is usually "when can I get out?" He already knows how. Also, within the prison environment, recidivists are generally accepted

in a more favourable manner by their peers than the first offender. To use the vernacular, "they have already been there, they know the ropes". A first offender is looked upon as one who still must prove himself and many are usually tested within the first few weeks of arrival (Danto, 1973). From the writer's experience in Headingly there are many examples of how the first offender can be tested and coerced. They may be asked to steal from the kitchen in order to gain favour or because of physical threats. They can be and are approached homosexually and asked to give up their daily canteen, under threat of reprisal. Obviously, there are many factors which interfere with this process such as the physical size of the first offender, his attitude, etc. However, there is strength in numbers as, at any given time, there are more recidivists in Headingly than first offenders. Therefore, the anxiety level of the novice, might in general, be greater than the recidivist. However, to counter this argument, the first offender is usually viewed by staff with more empathy and are seen as better parole and early release prospects. This attitude is obviously relayed to the prisoner and he develops certain expectations. Also, in considering the recidivist, just because one has had experience in a stressful environment does not mean he

will exhibit less anxiety during his second, third or fourth term. Therefore, the fourth question of concern in this study is:

4. Will the anxiety level of the first offender differ from prisoners who have previously undergone incarceration?

(3) Ethnic Origin -

Natives (Treaty and non-treaty) comprise from thirty to fifty percent of the total sentenced population in Headingly, at any given time. In other western provincial prisons, particularly northern locations, the ratio is as high as ninety percent. Incarcerated natives usually originate from rural reserves or from lower socio-economic areas of the larger urban centers (Gazee, 1977). In the publication, *The Native Perspective*, are many articles concerning natives in prison, usually written by native prisoners. They appear to exhibit the same general concerns as white prisoners. These include, living conditions, assaults, staff, homosexuality, etc. However, James (1979) believes that the native offender, because of his cultural roots, may not be as negatively affected by the prison situation as other inmates. He states;

Because of his "now orientation", a prison sentence may produce in a native even less of the expected deterrent effect than on inmates in general.

The time spent in jail is not really interfering with anything else of pressing importance; nothing will be that much different when he gets out; there will be little stigma. He does not consider himself to be indispensable to his home and community as we do. Because of his acceptance of whatever the present brings, many natives make "good" inmates because of their non-competitiveness and are content because of their disinterest in material possessions (p.460).

From the writer's experience in prisons, natives tend to group together more readily with their native peers than whites. Thus, they have strength in numbers and can obtain social reinforcement from each other. Therefore, natives, as a group, might be less inhibited by the stress of prison and thus would not exhibit as much anxiety as the white offenders. On the other hand, one could argue that despite the above, the loss of freedom is as important to a native from a reserve and thus the confinement itself would be the over-riding stressful factor. Therefore, the fifth question of interest is whether a prisoner's race will have an effect on his anxiety level?

(4) Correctional Officers -

The writer felt that correctional officers should be one of the groups utilized in this study. Not only could they be used as a control group for the prisoner sample but their anxiety levels would also be of interest.

Although correctional literature is prolific concerning prisoners and prisons, there is little pertaining to



the custodial or correctional officer (Fagal, 1975; Hawkins, 1976). However, from sixty to eighty percent of all correctional staff are guards. Also, most penologists or any one familiar with the prison system would agree that guards have more influence on prisoners in either a positive or negative manner than any other group of prison staff.

Historically, the view of guards has been twofold. At times, they have been described as harsh disciplinarians, who dominate the inmate through fear and physical force. Donald Clemmer (1940) describes a prison warden who is cited as saying, that instead of a sense of duty his guards desire to know but three things "when do we eat, when do we quit and when do we get paid?" Clemmer unfortunately, accepted these comments as accurate but did allow for guards to have moments of "kindliness". Sykes (1958) did not accept the popular stereotype of guards as a brutal and insensitive incompetents, corrupted by absolute power (Hawkins, 1976). He described them as being under strong pressure to compromise with the prisoners. He felt they could only insure their dominance through this compromise. Therefore, it is the inmates and not the guards who are doing the corrupting. In support of Clemmer's views, McCleery (1960) believes that guards are unanimous in their efforts to preserve the authoritarian

power structure. Thus, they tend to subvert any liberal programs. Creesy (1973) suggested that prison guards purposefully assist in starting trouble and riots amongst prisoners in order to remove or embarrass officials who start progressive programs. These views may be true of some guards in some prisons at some time. However, blanket condemnations or even acclamations are usually unscientific, inaccurate, difficult to substantiate and certainly damaging. Hawkins (1976) summarizes his chapter on prison guards with the following statement:

The truth, as it emerges from the few studies which pay attention to the prison guards and view them objectively, is simply that these guards were and are for the most part ordinary human beings with ordinary human failings and virtues. They have in the past been asked to perform impossible tasks without being properly trained to perform even possible ones. It is, an extraordinary feature of the history of prisons that it was not until the 1930's that the first formally organized training programs for prison guards and custodial officers appeared in America. Many institutions still provide no full-time preparatory training for them before they start work. At the same time they are the lowest paid of all correctional employees. We shall achieve nothing - worse, we are likely to do active harm - in prisons until we carefully select, train as thoroughly as we know how, and properly recompense the prison officer of the basic grade (p. 106-107).

Unfortunately, very little in the manner of formal training is conducted with provincial correctional officers at Headingly. A new officer gets most of his direction from other older staff and thus may be subjected to a very biased viewpoint. If one is to take his position seriously, the job of a prison guard is not an easy task. He must not only cope with inmate concerns but with the constant security regulations he must enforce. He is told in his short training period that he should be able to relate to prisoners but should never establish a relationship. There is the constant threat of physical violence on his person and he himself must at times use force against prisoners. Prisoners are not, by and large, easy going, soft spoken, co-operative individuals. Because of the stresses on them, they in turn reflect their anxiety in many ways. As the guard has the most contact with them, other than their peers, he is usually the brunt of this anxiety. In an article, interestingly titled "Correctional Officers Don't do Time", Barrington (1980) remarks:

They don't consider how hard it is for a normal person to be helpful while being hated. By those who want to be punitive, he will be seen as soft. They usually don't know how hard it is for a normal person to inflict discomfort without provocation. He will absorb and contain

hostility without being himself hostile and will pay the price of that. It is the stuff high blood pressure can be made of. Though the pressure to individualize is great and the individual needs are real he will impose rules without favor in order to sustain the whole and he will pay the price of that. Discipline and inmate safety ultimately depend on it, but it is the stuff self-contempt can be made of (p.51).

In an internal study conducted three years ago by the medical department, it was found that the incidence of heart disease amongst Headingly Guards was sixty per cent higher than the national average. This is a stress-related illness and unless we are hiring people with heart problems, this should have something to say about the work environment. It is the writer's opinion that correctional officers are under stress in prison as well as the inmates. Possibly, not to the same degree or as a result of different variables, however, there is a basis for investigation. Therefore, the sixth question of interest is how correctional officers as a group will compare to the prisoner and control groups on anxiety level?

(5) Comparison Between Prisons -

A new prison facility has just been opened in the city of Brandon, approximately 120 miles west of Headingly. This institution is considered one of the most modern in

Western Canada. Unlike Headingly, it is new, well equipped, clean, and not overcrowded. The prisoners have their own separate rooms (each with a window) or at worse, there are two to a room. There are no bars within the entire prison. Brandon operates on a Living Unit concept, where prisoners, dependent on level of security, are assigned to one of three units. However, prisoners do have the freedom of the unit each being self-contained with its own open or recreation area. One might be inclined to believe that the level of anxiety in such a prison would be lower than Headingly, simply because men there live in a much "nicer environment". However, others may argue that one can be imprisoned in a luxury hotel and still be under stress. The point that one is confined and restricted in freedom is the important factor. Therefore, the seventh question to be addressed is: Will inmates in Brandon differ in their level of anxiety than those at Headingly"

Other Characteristics - Other characteristics of the Headingly prisoner population of interest to the writer are as follows:

Age - Will older prisoners exhibit a different anxiety level than younger prisoners? Some might contend that a young man, because of his youth, might tend to be more anxious in prison than an older person. Young men

in prison are at times looked upon as homosexual targets (Danto, 1973). They can be taken advantage of by older inmates who look upon them as being inexperienced and therefore vulnerable. On the other hand, many young men enter prison after having experienced incarceration in juvenile facilities. These include Portage Home for Boys, Knowles, Group homes and juvenile facilities in other provinces. At times, these incarcerations have been for years, therefore when he arrives at Headingly, there is certainly no novelty to the experience, just a graduation to a different level.

Marital Status and Children - Will married men experience more or less anxiety in prison than single men? Some might say that because a person is married he would be more anxious because of worrying over his family in the community. Also does the fact of having children at home affect one's anxiety level? This again might lead a prisoner to be more anxious due to worry over loved ones at home.

#### Summary of Questions

1. Is Headingly Prison an anxiety provoking experience for inmates?
2. Does where the prisoner reside (location) have an effect on his anxiety level?

3. What will be the effect of time on a prisoner's level of anxiety?

4. Will the anxiety level of the first offender differ from prisoners who have previously undergone incarceration?

5. Will a prisoner's racial origin have any bearing on anxiety?

6. How will correctional officers as a group compare in anxiety level to other groups (prisoners and control)?

7. Will prisoners in Headingly exhibit more anxiety than prisoners in Brandon?

8. Will a prisoner's age influence his anxiety level?

9. Will the fact that a prisoner is married or has children effect his level of anxiety?

## Chapter II

### METHOD

#### Subjects

The major groups of subjects utilized in this study were:

1. Male prisoners presently sentenced to Headingly Correctional Institution (N = 183).
2. Male prisoners sentenced to Brandon Correctional Institution (N = 27).
3. Correctional Officers employed as guards at Headingly (N = 27).
4. A group of first year male Social Work students (N = 25).

All Headingly prisoners were selected on the basis of being incarcerated at the time of the study. As much of the entire population as possible was tested.

Some of the general characteristics of the Headingly prisoner sample are illustrated in Tables 7 to 11. The total number of subjects including all the groups was 262. All were volunteers, as when asked if they wished to participate, had the option of refusal. Fifty-eight prisoners refused along with five correctional officers and no students.



Table 7

## General Variables of Headingly Sample

Variable	Mean
Age	26.1 years
Sentence	10.5 months
Previous incarcerations	1.5
Time served at testing	4.2 months

Table 8

## Race

Race	Number Tested	Percentage
Native	59	32.24
Metis	43	23.50
White	81	44.26

Table 9

## Point of Incarceration

Point of Incarceration	Number Tested	Percentage
Beginning of Sentence	31	16.90
Middle of Sentence	103	56.28
End of Sentence	30	16.39
Street	19	10.38

Table 10

## Marital Status

Marital Status	Number Tested	Percentage
Single	76	41.53
Married or Commonlaw	73	39.89
Separated, divorced, widowed	34	18.58

Table 11

## Children

Number of Children	Number Tested	Percentage
0 children	103	56.28
1 or more	80	43.72

Procedure

All subjects in this study were tested by the writer. The Headingly prisoner sample was tested in groups of two to ten in the library, which is a quiet, central location outside their living location. After being called into the room they were told by the writer that he was doing a study at the University, as he was a graduate student, on how people feel. They were told that if they volunteered to participate they would be required to complete a short questionnaire and that their names were not required. Again it was reiterated this study was an independent study and as names were not required, confidentiality was secure. Those that did not wish to participate were then told they could leave. Prisoners who remained were asked to fill out a short information sheet (Appendix B) which would be helpful for group comparisons. Also, when finished, to await instructions. The instructions at the top of Form X-1 were read to the men, with one revision. The second sentence reads "Read each statement and then blacken the appropriate circle to the right of the statement to indicate how you feel right now, that is, at this moment". This sentence was restated to say "Read each statement and then blacken the appropriate circle to the right to indicate how you have been feeling for the past few days". The purpose of



this revision was to attempt to control for the situational influences at the time the test was taken. Prisoners, in general, are quite apprehensive about any perceived testing or reporting situation and the writer did not wish to determine how they feel at "this moment" but how they have been feeling for the past few days. This type of revision is considered valid in that Spielberger states in the manual:

The precise period for which the subjects A-State responses are desired should be emphasized in the instructions (p.4).

Upon completion of form X-1 which measures State Anxiety they were read the instructions on form X-2, which measures Trait Anxiety. The Brandon sample of inmates was tested at the Brandon Institution in the same fashion. Correctional officers were asked individually if they wished to participate in the study as a control group. They were given exactly the same information and explanation as the prisoner sample. They were not however, asked to complete an information sheet. The writer felt it would be difficult enough to obtain correctional officer volunteers, without asking them additional information. The student sample was tested in one large group, just prior to a regular class.

All the information pertaining to the questions the writer wished to investigate were on information

sheets attached to the test (Appendix B). These were: location, point of incarceration, time already served, sentence, number of previous incarcerations, race, age, marital status and number of children.

Supplemental Procedure -

In order to study the effect time (point of incarceration) on the anxiety scores the procedure was simply to take the entire prisoner population, who are at different points in sentence, and compare the test scores between those points.

1. Beginning of sentence - first 24 hours of incarceration.
2. Middle of sentence - that time between the beginning and end of sentence.
3. End of sentence - that time during the last three days of incarceration.
4. Street - that time while on pre-release, temporary absence in the community.

However, it was felt that further validation was required. Therefore, twenty inmates whose sentences varied from two to four months were tested on four separate occasions, i.e. (beginning, middle, end of sentence and while in the community). The instructions for this group were the same as other prisoners, however, they

were told they would be re-tested at different intervals in their sentence. As this test is a self report inventory, asking how they feel within a given time frame, the test can be used repeatedly. Spielberger, in his manual, reports:

It has been found that repeated administration of personality tests either lead to greater reliability in differentiating among subject or have no significant difference on test scores (p.4).

Their first test scores were incorporated as part of the New Intake sample as they just wrote the test, while new arrivals in the Intake area.

As a further investigation of time on anxiety level the amount of time the prisoner had served between being incarcerated and being tested was utilized. This time served variable was divided in three levels:

1. Prisoners who had served 1 month or less.
2. Prisoners who had served between 2 and 11 months.
3. Prisoners who had served more than 12 months.

## Chapter III

### RESULTS

#### The Question of Location

Levels of anxiety, as scored on the test, appeared to be related to which location the prisoner was housed. Please refer to Table 12 and Figure 1. As can be observed there was a high level of significance between location at State Scores. Again, this is the anxiety level that is affected by the situation. The Intake area (which houses new arrivals during their first day of incarceration) indicated the highest level of anxiety. Inmates serving their time in the community, the lowest level of anxiety. Interestingly, Trait scores, measuring general anxiety level, i.e.: personality characteristics, also showed a significant location difference, although not nearly as strong. In order to calculate exactly where these differences occurred, a one-way analysis of variance was conducted using three A Posteriori Contrast Tests, which were effective for unequal group sizes as described in SPSS (1970).

Table 12  
State-Trait Score Means by Location

Location	N	State Mean	Trait Mean	Differences
Group 1 - Intake	31	56.26	37.87	+19.39
Group 2 - Dormitories	39	51.97	42.85	+ 9.12
Group 3 - Blocks	23	52.70	44.39	+ 8.31
Group 4 - Annex A	29	49.83	40.24	+ 9.59
Group 5 - Annex B	22	44.00	38.32	+ 5.68
Group 6 - Camp	20	39.25	43.10	- 3.85
Group 7 - Community	19	34.63	35.10	- 0.47
	<u>183</u>			

Group Mean of State Scores = 48.30

Group Mean of Trait Scores = 40.46

Mean Difference = +7.84

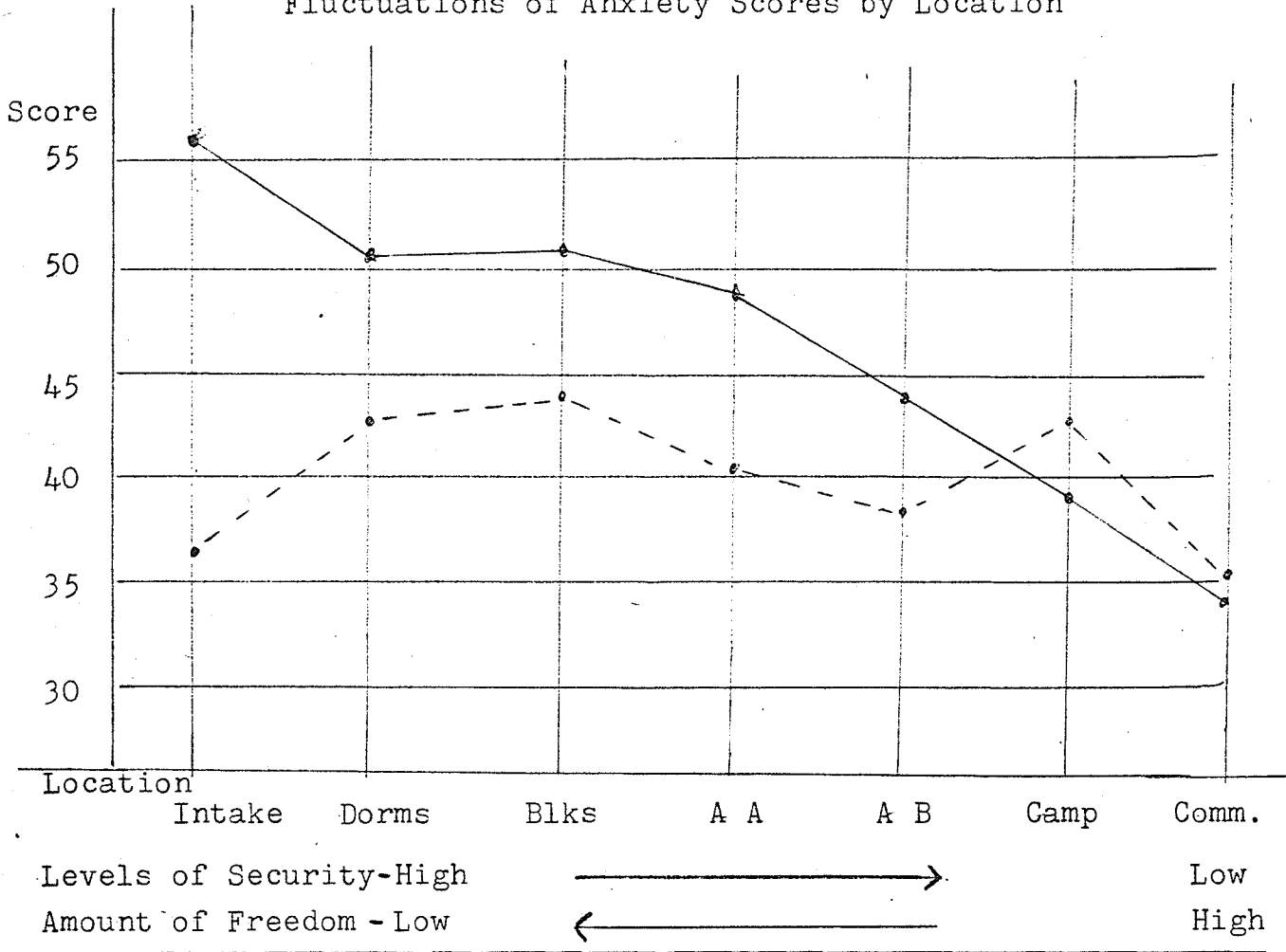
F-RATIO 14.810

F-PROB 0.000



Figure 1

Fluctuations of Anxiety Scores by Location



————— State Anxiety Mean Scores

- - - - - Trait Anxiety Mean Scores

Note - As level of security decreased and amount of allowable freedom increased State anxiety scores steadily declined.

(1) SNK (Student-Newman-Keuls)... different range values are used size subsets. SNK holds the experiment wise error rate to alpha for each stage of testing procedure (for tests involving the same number of means). This alpha is neither experimentwise nor per-comparison. SNK is only approximate of the group sizes are equal (p.428).

(2) LSDMOD (Least significant difference, modified) uses a single range value for testing all differences, which is derived from students t. LSDMOD, however, uses a third definition of error rate:

Alpha =  $\frac{\text{number of errors}}{\text{number of experiments}}$   
and transforms t accordingly. LSDMOD is exact for unequal group sizes (p.428).

(3) Scheffe uses a single range value for all comparisons which is appropriate for examining all possible linear combinations of group means, not just pairwise comparisons. Thus it is stricter than the other tests. Scheffe is exact, even for unequal group sizes (p.428).

The results can be observed in Table 13. In summary, State scores for new arrivals in the Intake location were significantly higher than those who resided in the community, Camp and Annex B. Those in the Blocks and Dormitories were significantly higher than Community and Camp scores. Annex A prisoners showed a significantly higher anxiety level than prisoners in the Community. The LSDMOD technique indicated a significantly higher difference in Annex A than Camp, however, Scheffe did not. SNK showed a significant difference at .05.

Table 13

## State Group Differences Between Locations

Location & Mean	Dorms 51.97	Blocks 52.70	Annex A 49.83	Annex B 44.00	Camp 39.25	Community 34.63
Intake(56.25)	.05	.05	.05	.01	.01	.01
Dorms(51.97)		Nil	Nil	.05	.01	.01
Blocks(52.70)			Nil	.05	.01	.01
Annex A(49.83)				.05	.05	.01
Annex B(44.00)					Nil	.05
Camp(39.25)						Nil

## Significance Level

Note - Scheffe (.01) and LSDMOD (.01) indicated exactly the same results except for the Annex A by Camp comparison. LSDMOD showed significance at .01 whereas Scheffe did not.

Regarding the Trait Scores no groups were significant at the .01 level.

Differences between Institutions -

When the anxiety State and Trait Scores of the Headingly prisoners were compared to the Brandon prisoners, no significant differences were found. In fact their mean scores were almost identical (Table 14).

Differences between control groups -

When Headingly prisoner State anxiety scores were compared to Correctional Officer scores and students, it was found that they differed significantly from both groups. There was no significant difference between Correctional Officers and students but officers did score higher (Tables 15, 16). Interestingly, the results comparing the Trait scores showed a significant difference (.01) between Headingly prisoners and students and between Headingly prisoners and Correctional Officers, but not the Brandon sample. This was significant at the .05 level (SNK). There was a significant group effect for State anxiety scores (F Ratio = 18.31, F Prob = 0.000) and a significant group effect for Trait anxiety scores (F Ratio = 9.86, F Prob = 0.000).

Point of Incarceration -

The State anxiety scores of Headingly prisoners differed significantly based on their point of incarceration. An analysis of variance showed an F Ratio of 21.83 and

Table 14  
Mean Scores of Prisoners and Controls

Groups	N	State Anxiety Mean	Trait Anxiety Mean	Difference
1. Headingly prisoners	183	48.30	40.46	+7.54
2. Brandon prisoners	27	48.74	39.74	+8.00
3. Correctional Officers	27	38.37	32.74	+5.63
4. Students	<u>25</u>	33.76	34.08	-0.32
	262			

Table 15

State Score Differences Between Experimental  
and Control Groups

	Brandon (48.30)	Correctional Officers (38.37)	Students (33.76)
Headingly (48.30)	Nil	.01	.01
Brandon (48.74)		.01	.01
Correctional Officers (38.37)			Nil

Significance Level

Table 16

Trait Score Differences Between Experimental  
and Control Groups

	Brandon (39.74)	Correctional Officers (32.74)	Students (34.08)
Headingly (40.46)	Nil	.01	.01
Brandon (39.74)		.05	.05
Correctional Officers (32.74)			Nil

Significance Level

F Prob of 0.000. There was also a significant group effect for the Trait Anxiety scores (F Ratio 5.54, F Prob 0.001). When observing individual State Anxiety score differences (Tables 17, 18; Figure 2) significant differences at the .01 level were detected between:

- beginning of sentence X community
- beginning of sentence X end of sentence
- middle of sentence X end of sentence
- middle of sentence X community.

Only one Trait Anxiety score difference was found significant at .01; this was between: middle of sentence and community scores.

#### Longitudinal Study -

As will be remembered, 20 prisoners were tested at four points of their sentence in order to substantiate the results indicated above. The findings are illustrated in Tables 19, 20 and Figure 3. Two-tailed t-probabilities were conducted to determine significant differences between the different points of incarceration. For State Anxiety scores, these results exactly coincided with the Point of Incarceration segment. However, no significant variation, whatsoever, was detected in the Trait Anxiety scores. This differed slightly from the Point of Incarceration segment where some variation in Trait Anxiety levels was observed.

Table 17

## Mean Scores at Point of Incarceration

Point of Incarceration	N	State Anxiety Score	Trait Anxiety Score	Difference
Beginning of Sentence	31	56.26	37.87	+18.39
Middle of Sentence	103	50.12	42.58	+ 7.54
End of Sentence	30	42.50	39.27	+ 2.43
In the Community	19	34.63	35.16	- 0.53

Figure 2

## Anxiety Fluctuations over Time (POI)

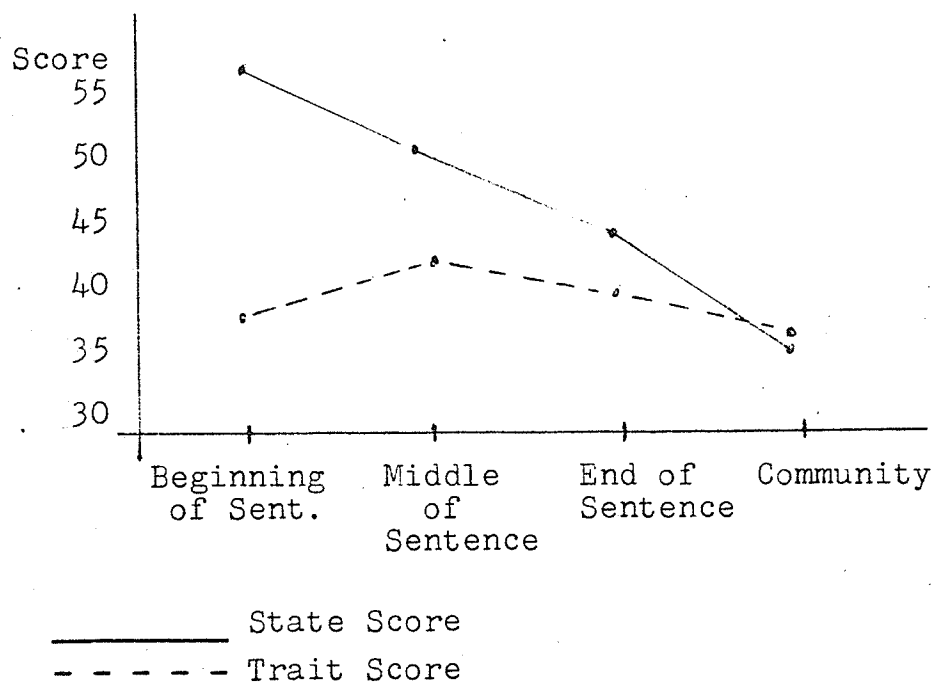




Table 18

State Anxiety Differences Between  
Points of Incarceration

	Middle (50.12)	End (42.50)	Community (34.63)
Beginning of Sentence (56.26)	.05	.01	.01
Middle of Sentence (50.12)		.01	.01
End of Sentence (42.50)			.05

---

Significance Level

Note - Trait Anxiety Differences showed a significant difference between Middle of Sentence X Community (.01) and Beginning of Sentence X Middle of Sentence (.05).

Table 19

## Anxiety Level on Longitudinal Study

Group	N	State Anxiety Mean	Trait Anxiety Mean	Difference
1) Beginning of Sentence	20	54.75	36.80	+17.95
2) Middle of Sentence	20	55.25	38.20	+17.05
3) End of Sentence	20	49.85	38.85	+11.00
4) Community	20	39.35	37.50	+ 1.88

Figure 3

## Anxiety Fluctuations Over Time (Long)

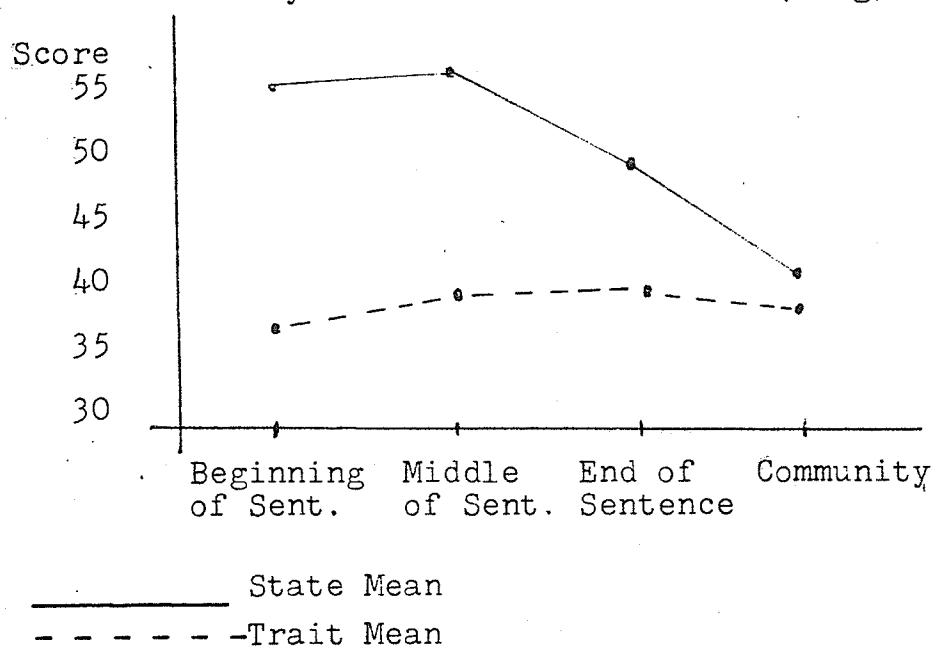


Table 20  
 Longitudinal Study of State Anxiety Scores

Variable	N	Mean Difference	T-Value	2-Tail Prob.
Beg. of Sentence X Middle of Sentence	20	-0.5	-0.60	0.558
Beg. of Sentence X End of Sentence	20	4.9	2.89	0.009 *
Beg. of Sentence X Community	20	15.4	6.03	0.000 *
Middle of Sentence X End of Sentence	20	5.4	3.64	0.002 *
Middle of Sentence X Community	20	15.9	6.69	0.000 *
End of Sentence X Community	20	10.5	5.27	0.000 *

\* denotes level of significance at 0.01 level.

Note - Trait Anxiety Scores exhibited no difference at .01 or .05.

Time Served -

Results of Anxiety level compared to how long a prisoner has served or been in Headingly are illustrated in Tables 21, 22 and Figure 4. The reader will observe that with those who have only served one month or less, their State Anxiety level was significantly higher than those prisoners who have been in Headingly longer. This anxiety level decreased as time went on. No differences were observed with Trait Anxiety level.

Length of Sentence -

Results of anxiety level compared to a prisoner's length of sentence (i.e.: sentence handed down by the court) is summarized in Table 23. There were no significant differences amongst State scores. Trait score comparisons resulted in a significant group effect (F Ratio 5.58 and F Prob 0.004) and significant differences between group 2 and 3 at .01 (4-9 months X 10 month or more).

Previous Incarcerations or Degree of Criminality -

The number of previous incarcerations a prisoner had showed no effect on his State anxiety scores. However, the effect on Trait scores was significant at .01 (Table 24). First offenders had a significantly lower Trait score than the highest recidivist group. Trait Anxiety scores tended to increase as previous offences increased.

Table 21

## State, Trait Means Based on Time Served

Group	N	State Anxiety Mean	Trait Anxiety Mean	Difference
1) Served 1 month or less	51	54.86	40.43	+14.43
2) Served 2 months to 11 months	120	46.05	40.14	+ 5.91
3) Served 12 months or more	12	42.92	43.83	- 0.91

Figure 4

## Anxiety Fluctuations Over Time Served

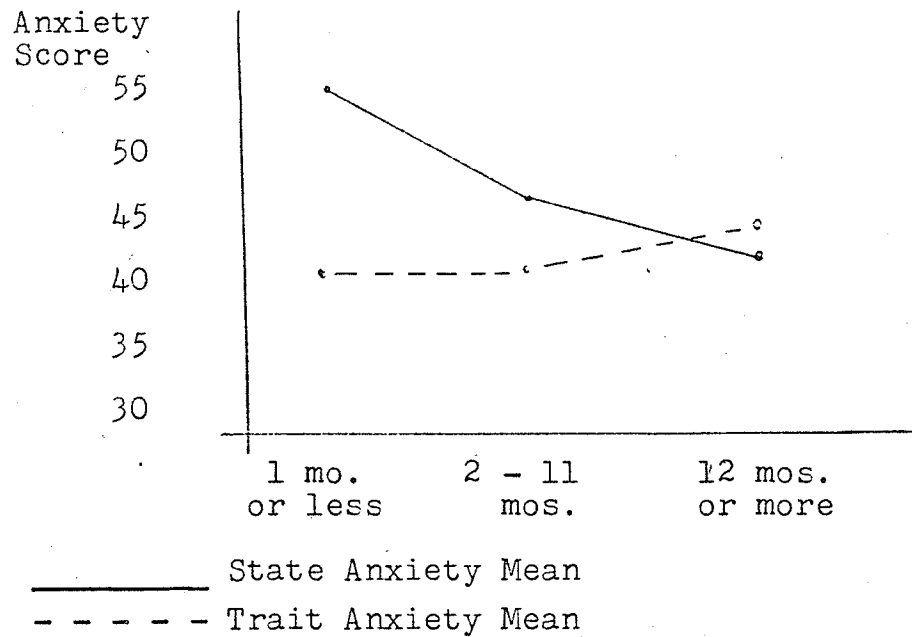


Table 22

## State Anxiety Difference Between Time Served

Time Served	2-11 mos. (46.05)	12 or more (42.92)
1 month or less (54.86)	.01	.01
2 mos. to 11 mos. (46.05)		None

---

Significance Level

Table 23

## State, Trait Anxiety Means by Length of Sentence

Group	N	State Anxiety Mean	Trait Anxiety Mean	Difference
1) Sentenced to 3 mos. or less	35	52.03	40.11	+11.92
2) Sentence from 4-9 mos.	63	45.33	37.75	+ 7.58
3) Sentence of more than 10 mos.	83	48.96	42.62	+ 5.27

Note - State Anxiety level displayed no significant difference as a group effect at the .01 however F Prob. was 0.0208. Therefore, there was significance at the .05 level. There was a significant difference between groups 1 and 2 at the .05 level according to SNK (.05).

Table 24

State, Trait Means Based on Previous  
Criminal History

Group	N	State Anxiety Mean	Trait Anxiety Mean	Difference
1) 1st offenders	52	49.31	37.06	+12.25
2) 2nd or 3rd time in prison during last 5 years	89	47.96	41.52	+ 6.44
3) 4 or more times in prison during last 5 years	42	47.79	42.45	+ 5.34

Note - No significant difference for State Anxiety.

- For Trait Anxiety  $F = .004$  which was a significant group effect. The only two groups which differed indicated by SNK (.05), LSDMOD (.01) and Scheffe (.01) were groups 1 and 3.



Other Variables -

A prisoner's Race (Native, Metis, White), Age, Marital Status and Number of Children had no effect on State and Trait Anxiety scores. No significant differences were found at either point .05 or .01. Tables 25 - 28 summarize the mean scores of these groupings.

Table 25

## State, Trait Means Scores for Race

Group	N	State Anxiety Mean	Trait Anxiety Mean	Difference
1) Native	59	48.79	41.24	+ 7.55
2) Metis	43	47.67	40.70	+ 6.83
3) White	81	48.30	39.78	+ 8.52

Table 26

## State, Trait Mean Scores for Age

Group	N	State Anxiety Mean	Trait Anxiety Mean	Difference
1) 21 yrs. or less	65	49.97	40.94	+ 9.03
2) 22 yrs. to 30 yrs.	75	46.56	39.32	+ 7.24
3) 31 yrs. or more	43	48.81	41.74	+ 7.07

Table 27

## State, Trait Mean Scores for Marital Status

Group	N	State Anxiety Mean	Trait Anxiety Mean	Difference
1) Single	76	47.80	39.03	+ 7.73
2) Married or Commonlaw	73	47.86	40.89	+ 6.97
3) Separated, Widowed or Divorced	34	50.35	42.76	+ 7.59

Table 28

## State, Trait Mean Scores for Number of Children

Group	N	State Anxiety Mean	Trait Anxiety Mean	Difference
1) No children	103	47.60	40.29	+ 7.51
2) 1 or more children	80	49.20	40.69	+ 8.51

## Chapter IV

### DISCUSSION

For the sake of clarity each question of interest to which the writer addressed himself, will be discussed individually.

Is Headingly prison an anxiety provoking experience for inmates? The answer is of course, "yes". The mean State anxiety level for Headingly prisoners was significantly higher than Students and Correctional Officers and much higher than their Trait Anxiety or General Anxiety level. Possibly, different prisons in different parts of the country would have revealed slight variations, however, penological literature abounds with articles concerning the cruelty, stress, and problems of prison life. This would tend to support such arguments. However, by answering the general question, one is still left with numerous unanswered questions, such as, what in particular are the sources of this anxiety provoking stress? Harassment, fear, crowding, lack of freedom, all possibly play some part along with hundreds of other variables.

The anxiety level in this prison was not found to be consistent. It was for instance, found to vary with the location of the prisoner. The second question

was: Does the prisoner's location have an effect on his anxiety level? The answer again was "yes". The Intake area, where new arrivals spend their first night elicited the most anxiety. It is the writer's contention, however, that it was not location which was the important factor here, but that the men were in prison for only 24 hours. As predicted, the prisoners housed in the Main Building, which is the highest level of security, and the least amount of movement, had the next highest anxiety scores, but not significantly higher than Annex A, at least at the .01 level. Annex B, where prisoners, were allowed to leave the prison daily had a significantly lower anxiety level than all other locations, except for Camp, at the .05 level, but only Intake at .01. The trend, of course, is constant in that with the less amount of security and the more freedom, the less anxiety (Table 12). As predicted, those prisoners serving their sentence in the community showed the least amount of anxiety, but not significantly (.01) more than Annex B residents or men at Camp. Prisoners at the bush camp in the Whiteshell Provincial Park gave the most interesting and at the same time, confusing results. Their State anxiety level was the second lowest only to the prisoners in the Community. Also this difference was not significant, even at the .05

level. In fact, their State (situational anxiety) mean score was less than their Trait (general anxiety) score by almost four points. This means that, at least at the time they were tested, they were less anxious, than they would normally be. Obviously, the question arises; What is so different at the Camp than almost every other prison location that produces such a low anxiety level? Also, is it peculiar to Headingly's camp or camp life in general? As almost every major provincial facility and even some federal institutions operate bush camps, these questions become intriguing. Unfortunately, in terms of treatment program, this camp has virtually none, except their work program. Possibly, the low level of security and less crowding could be important factors. The fact that prisoners at camp chose to be at camp and are therefore willing participants, may also be significant. In looking at the data, the camp population did not have any characteristics, such as age, race, etc., which were markedly different than the rest of the locations.

What is the effect of time on a prisoner's anxiety level? This question was approached in three different ways:

1. All men tested were divided into four time categories; (1) beginning, (2) middle, (3) end of sentence, (4) in the community. They were not selected beforehand but only on the basis of into which time category they

fell at the time of testing.

2. All men tested were divided into three categories dependent on how much time they had served in their sentence; (1) less than one month, (2) two to eleven months and (3) more than twelve months.

3. Twenty prisoners in a short longitudinal were each tested at four points within their sentence. All three methods achieved consistent results, that is, the point of admission being the most anxious and anxiety level decreasing until release. No U-shaped curve was found as might have been predicted by Wheeler (1971), no increase as reported by Oleski (1977) or no change, Bonta and Nanckwell (1980). The finding supports Dyer's (1976) results, who also detected a steady decline in anxiety. This is illustrated in Figures 2, 3, 4.

When considering the variable of location and of time, some confusion might result in that two locations (Intake and Community) are actually the same as two time factors (Beginning of sentence and Community). All inmates who were in Intake were at the Beginning of their sentence. Also, all inmates who were in the Community, were also in the Community segment of their sentence in terms of time frame. Therefore, one may ask, what is actually being measured; anxiety with respect to location or with respect to time? The writer is aware of some design fault in this

area. However, it is believed that, in this case, both are interchangeable. After doing an Analysis of Variance on location and time separately and not including the above factors the main effects were still found significant at better than the .01 level. Also an Anova two-way interaction between the variable of location and time revealed no interactional effect.

Will the anxiety level of the first offender differ from prisoners who have previously undergone incarceration? Prior to this study, the writer firmly believed that first offenders would exhibit far more anxiety than those who had previously experienced the prison situation. However, this was not the case when one looks at just the State scores (Table 24). However, the first offender showed double the increase in difference between Trait and State scores than did the recidivists. Also, there was a significant Trait difference between the groups. This was between the first offender and prisoners who had been in jail most often. This would indicate that first offenders as a group are less generally anxious than people who have been to gaol a number of times, i.e.: recidivists have more of a tendency toward anxiety. However, even though their anxiety increased with the prison experience, it was only one-half the increase of first offenders. Therefore, one might argue that first offenders are affected by the prison experience more than recidivists.



Regarding the questions of racial origin, age, marital status and number of children; no significant differences in anxiety (State or Trait) were found at any level. No significant differences were predicted by the writer, however, it was felt that with age, younger offenders may have showed a higher anxiety level than older prisoners, simply on the grounds that younger men appear to be more naive and susceptible in prison.

Will prisoners in Headingly exhibit more anxiety than prisoners in Brandon? Prior to this study it was felt, because Brandon gaol was such a new and modern facility, allowing for more privacy, etc., prisoners would be less anxious overall than Headingly. However, this was not the case (Table 18). Their mean anxiety level was equivalent to Annex A in Headingly, which was only slightly less than the level in the Main Building. Little explanation can be offered for this result. It would tend to support the notion that a jail is still a jail, no matter how amendable the surroundings. The variable that makes a jail a prison seems to over-ride the interior and exterior decor. The other explanation of course, is that there may be some factors peculiar to the Brandon Institution which increases anxiety level. The only way to examine this would be to compare it to anxiety levels in other modern and similar facilities.

How will Correctional Officers, as a group, compare

to the other groups? It was believed that Correctional Officers would show a high level of anxiety. The results indicated, however, that both the Brandon and Headingly prisoners had a significantly higher level. No significant difference was found between officers and student scores. However, although significance was not established (Table 14) they were higher than the students. Also the increase in Trait to State scores was almost as much as the prisoner groups. This would indicate that their anxiety level is definitely being affected by their situations. The writer assumes that situation to be their work environment. One should be cognizant of the fact that, this slightly higher anxiety level, if prevalent for years, while on the job, can have a detrimental effect. Even low levels of stress, if consistent over long periods of time can have harmful effects (Appley, Trumbell, 1967; Bosowitz et al, 1955; Selye, 1956, 1976).

## Chapter V

### CONCLUSION

In conclusion, the writer believes that stress in prison is an important and little understood phenomenon. For those who work in prisons, in both security and program components, it is a daily problem, in that they must cope with and assist the inmates who are under varying degrees of stress. Employees in the program sections come from various background which include social work, psychology, counselling specialists and ex-correctional staff. They are given the mandate to assist the prisoner through counselling, training, education, program development, etc., all under the umbrella of the "treatment model". Indeed, as stated earlier, treatment is considered one of the prime purposes for putting a man in prison, following the punishment and the deterrent aspect. However, how effective can treatment be, when a prisoner is in a high stress area such as the Main Building for a long time? Yet, the inmate is expected not only to be involved in programs, but to do well or he will not get such benefits as early release, consideration for work programs, etc. The first twenty-four hours of arrival were obviously the most stressful times for prisoners. However, this is the time when they are informed of the rules and regulations, given

orientation packages, respond to questions regarding their offences, personal history, etc. Also, immediately after the twenty-four hour period, they are placed in population. Should not this process be slowed in order that the prisoner be given time to at least make some adjustment? The study indicated that stress was affected by time and that, as time passed, anxiety level decreased. This suggests therefore, that some orientation and other programming might be more effective later in a man's sentence.

The writer is cognizant of the fact that security and control are uppermost in a prison and for many prisoners, who are considered a risk and a danger, tight control is necessary. However, certainly, not for all. Prisoners in Annex B and Camp had the least amount of anxiety and these are the least secure areas. Yet, at camp, no programming is available other than work. A skeptic might conclude that the no-programming factor is the reason for this lower area of stress. However, to the writer it tends to indicate that this type of environment, for whatever reasons of low stress, might therefore be a target area for treatment programs. At Headingly, the target areas for treatment programs, such as school, counselling, etc., are primarily those of high stress, i.e.: the Main Building and Annex A. Therefore, in terms of future expenditures, consideration might be given to more camps rather than more cells. The

writer would therefore both agree and disagree with those penologists who would say that treatment programs in prison are totally ineffectual. If we expect a prisoner to gain any purposeful benefit from a program such as counselling, for example, and he is under a high degree of stress 24 hours a day for months on end, we are being impractical. At best, we should expect only a little progress, especially if he has just started his prison term. That is not to say counselling should not be provided, however, possibly more counsellors should be available in the low stress areas where expectation can be more realistic. At present, at Headingly jail, the reverse is true.

This study indicated that modern and aesthetically pleasing surroundings are not necessarily important factors. Those prisoners tested at the Brandon Correctional Institution were under just as much stress as the much less pleasing Main Building at Headingly. In terms of cost-effectiveness, therefore, cheaper facilities might provide the same utility. With division of security levels and appropriate programming, they might even be more effective.

Those in the Social Work profession should be concerned and interested in prisons, not only from the humanitarian aspect but also in terms of social control and economics. The cost of keeping a man in prison is escalating yearly. The figure now stands at over \$20,000 per

annum per prisoner. If we can protect society, and still aid the prisoner, a better method must be found other than the present system. The writer does not suggest prisons be done away with. This would be irresponsible. However, for many, such as those who commit minor property crimes, driving offences, non-payment of fines, possession of small quantities of cannabis, alternatives to incarceration in a prison must be found. As indicated earlier in this study, the above offenders constitute the majority of the Headingly prisoner population. Yet, they are placed in a high stress situation with the expectation they will somehow emerge a rehabilitated individual. Social workers both in the community at large and within corrections, can continue to act as a lobby toward change. Even if "the nothing works" theorists are one hundred percent correct, a more diverse system of halfway houses, etc., which could be used as prisons within the community, would certainly be cheaper. The writer would like to add, at the time of this study, unlike other major centers in Canada, Headingly prison does not have one of its own live-in halfway houses in Winnipeg.

The writer believes this study offers some information which could be of use and attempts to address some important questions. The results are certainly not conclusive and, in hind sight, methodology errors were made.

For example, although the sample of prisoners at Camp provided interesting results, more concrete conclusions could have been made if other correctional camps in Manitoba were also surveyed. The interaction of the Location and Time element may not have been at issue if prisoners were tested at more frequent intervals.

The writer can only hope that research on stress in prison will continue, as it is believed to be an important variable, and a better understanding can add much to penology in general. This study is respectfully submitted as a small part of that research.

## Bibliography

- Appley, M. H., Trumbull, R. (ed.), Psychological Stress.  
Century Croft, New York, 1967.
- Barrington, R., Correctional Officers Don't Do Time,  
Corrections Today, March - April, 1980, pp.50-51.
- Bonta, J. L., Nanckwell, G., Institutional Misconducts  
and Anxiety Levels Among Jailed Inmates,  
Criminal Justice and Behavior, Vol. 7, 2, June,  
1980, pp.203-214.
- Bosowitz, H., Perky, H., Korchin, S. D. and Grinkin,  
Anxiety and Stress. McGraw Hill Book Co., Inc.,  
New York, 1955.
- Cattell, R. B., Schier, I. H. The Meaning and Measurement  
of Neuroticism and Anxiety. Ronald Press, New  
York, 1961.
- Cattell, R. B., Schier, I. H. The Nature of Anxiety.  
A Review of Thirteen Multivariate Analysis Com-  
prising 814 Variables, Psychological Review,  
1958, pp.351-388.
- Chaneles, S., Prisoners Can Be Rehabilitated - Now,  
Psychology Today. October 1976, pp.129-33.
- Clemmer, D., The Prison Community. New York: Rhinehard  
and Co., 1940.
- Clemmer, D., The Process of Prisonization in Crime and  
Justice, Volume III, L. Radzinowicz and M. E.  
Wolfgang (eds.), Basic Books Inc., New York, 1971,  
pp.92-96.
- Conrad, J. P., We Should Never Have Promised a Hospital,  
Federal Probation. December 1975, pp.3-9.
- Cressey, D. R., Adult Felons in Prison, in Prisoners  
in America, L. E. Ohlin (ed.). Englewood Cliffs,  
New Jersey, Prentice Hall, 1973.
- Cross, A. R. N., Punishment, Prisons and the Public:  
An assessment of Penal Reform in Twentieth Century  
England by an Armchair Penologist. London,  
Stevens and Sons, 1971.



- Danto, B. L., Jail House Blues. Epic Publications Inc., Orebord Lake, Michigan, 1973.
- D'Atri, D. A., and Ostfeld, A. M., Crowding: Its Effects on the Elevation of Blood Pressure in a Prison Setting, Preventative Medicine, 4, 1975, pp.550-566.
- D'Atri, D. A., Psychophysiological Responses to Crowding, Environment and Behavior, 7, No. 2, 1975, pp.237-252.
- Edwards, A. L., Experimental Design in Psychological Research. Holt, Rhinehard and Winston, Inc., New York, 1972.
- Fischer, W. F., Towards a Phenomenology of Anxiety in Explorations in the Psychology of Stress and Anxiety, B. P. Rourke (ed.). Longmans Canada Ltd., Don Mills, Ontario, 1969, pp.105-113.
- Fogel, D., We are Living Proof. The Justice Model for Corrections. W. H. Anderson, Cincinnati, 1975.
- Garabedian, P. G., Social Roles and Processes of Sociolization in the Prison Community, Social Problems, 11, 1963, pp.139-152.
- Gozee, C., Natives in Conflict with the Law, The Native Prospective, Vol. 2, #7, pp.31-35.
- Glaser, D., The Effectiveness of a Prison and Parole System. New York, Bobb-Merrill, 1964.
- Goffman, I, Asylums. Doubleday and Co., Inc., Garden City, New York, 1961.
- Halleck, S. L., Witte, A. D., Is Rehabilitation Dead? Crime and Delinquency. October 1977, pp.372-82.
- Hawkins, C., The Prison, Policy and Practice. The University of Chicago Press, 1976.
- James, J. T. L., Toward a Cultural Understanding of the Native Offender, Canadian Journal of Criminology, Vol. 2, #4, October 1979, pp.453-462.
- Johnson, D. T., Spielberger, C. D., The Effects of Relations Training and the Passage of Time on Measures of State and Trait Anxiety, Journal of Clinical Psychology, 1968, 24, pp.20-23.

- Johnson, R., Culture and Crisis in Confinement.  
D. C. Heath and Co., 1976.
- Krug, S., Schier, I. H., and Cattell, R. B., Handbook for the IPAT Anxiety Scale. Champaign, Illinois:  
Institute for Personality and Ability Testing, 1976.
- Lader, M. and Marks, I., Clinical Anxiety. Heinemann  
Medical Books Ltd., London, 1971.
- Lamb, D. H., The effects of public speaking on self-report, physiological and behaviour measures of anxiety, Unpublished Doctoral Dissertation.  
Florida State University, 1969.
- Lewitt, E. E., The Psychology of Anxiety. Indianapolis:  
Bobbs-Merrill, 1967.
- Lipton, D., Martinson, R., and Wilks, J., The Effectiveness of Correctional Treatment. New York,  
Praeger, 1975.
- Martin, C., The Assessment of Anxiety by Physiological Behavioural Measures, Psychological Bulletin,  
58, 1961, pp.234-255.
- Martinson, R., What Works? - Questions and Answers about Prison Reform, Public Interest, Spring, 1974,  
pp.22-54.
- May, R., The Meaning of Anxiety. New York: Ronald Press  
Co., 1950.
- McGain, G., Cox, U. C., Paulus, P. B., Relationship Between Illness Complaints and Degree of Crowding in a Prison Environment, Environment Behavior,  
No. 2, 1976.
- McCleery, R., Communication Patterns as a Basis of Systems of Authority and Power in R. Alloward, et al (eds). Theoretical Studies in Social Organization of the Prison, Social Science Research Council, 1960.
- McDougall, E. C., Corrections has not been tried, Criminal Justice Review, Spring, 1976, pp.63, 76.
- McGrath, W. T. (ed)., Crime and Its Treatment in Canada.  
Toronto: MacMillan, 1965.

- Meyer, M. E., A Statistical Analysis of Behaviour. Wadsworth Publish Co., Inc. Belmont, California, 1976.
- Mitford, J., Kind and Unusual Punishment. New York: Knoff, 1973.
- Nacci, P., Teitelbaum, H. E. and Prather, J., Population Density and Inmate Misconduct Rates in the Federal Prison System, Federal Probation, June, 1977, pp.26-31.
- Nie, N. H., Hull, C. H., Jenkins, J. C., Steinbrenner, K., Bert, D., SPSS. McGraw Hill, 1970.
- Oleski, M. S., The effect of indefinite pretrial incarceration on anxiety level of an urban jail population. Journal of Clinical Psychology, 1977, 33, pp.1003-1008.
- Sarason, I. A., and Spielberger, C. D. (eds.), Stress and Anxiety, Vol. 3, 1976. Hemisphere Publishing Co., Washington, D.C.
- Selye, H., The Stress of Life, Revised edition. McGraw Hill Book Co., New York, 1956, 1976.
- Smith, J., Freid, W., The Uses of the American Prison. Lexington Books, 1974.
- Spence, J. T., Underwood, B. J., Duncan, C. P., and Cotton, J. W., Elementary Statistics. Appleton Century Crofts., New York, 1968.
- Spielberger, C. D., Anxiety and Behaviour. Academic Press, New York, London, 1966.
- Spielberger, C. D., Gorserch, R. and Lushene, R. E., STAI Manual. Consulting Psychological Press, Palo Alto, California, 1970.
- Spielberger, C. D., Sarason, I. A., (eds.), Stress and Anxiety, Vol. 4, John Wiley and Sons, New York, 1974.

- Sykes, G. M., The Society of Captives, A Study of a Maximum Security Prison. Princeton, University Press, 1958.
- Sykes, G. M., Messinger, S. L., The Inmate Social System in R. A. Cloward, et al, Theoretical Studies in Social Organization of the Prison. New York: Social Science Research Council, 1960.
- Toch, H., Living in Prison. Toronto: MacMillan Publishing Co., 1977.
- Trimmer, E. J., Understanding Anxiety in Everyday Life. George Allen and Unwin Ltd., 1970.
- Wheeler, S., Socialization in Correctional Institutions in Crime and Justice, L. Radzinowicz and M. E. Wolfgang (eds.). Basic Books Inc., New York, London, 1971, pp.97-115.

Appendix A

Self-Evaluation Questionnaire  
Developed by C.D. Spielberger, R.L. Gorsuch and R. Lushene  
Consulting Psychologists Press  
577 College Avenue  
Palo Alto, California 94306  
U.S.A.

PREVIOUSLY COPYRIGHTED MATERIAL  
WAS NOT MICROFILMED. PLEASE  
REFER, IF NEED BE, TO THE  
ORIGINAL THESIS DEPOSITED IN THE  
UNIVERSITY CONFERRING THE  
DEGREE.

LE TEXTE DEJA PROTEGE PAR LE DROIT  
D'AUTEUR N'A PAS ETE MICROFILME.  
VEUILLEZ VOUS REFERER AU BESOIN A LA  
THESE ORIGINALE DEPOSEE A  
L'UNIVERSITE QUI A CONFERE LE  
GRADE.

**SELF-EVALUATION QUESTIONNAIRE**

Developed by C. D. Spielberger, R. L. Gorsuch and R. Lushene

STAI FORM X-1

NAME \_\_\_\_\_ DATE \_\_\_\_\_

**DIRECTIONS:** A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *feel* right now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1. I feel calm .....	①	②	③	④
2. I feel secure .....	①	②	③	④
3. I am tense .....	①	②	③	④
4. I am regretful .....	①	②	③	④
5. I feel at ease .....	①	②	③	④
6. I feel upset .....	①	②	③	④
7. I am presently worrying over possible misfortunes .....	①	②	③	④
8. I feel rested .....	①	②	③	④
9. I feel anxious .....	①	②	③	④
10. I feel comfortable .....	①	②	③	④
11. I feel self-confident .....	①	②	③	④
12. I feel nervous .....	①	②	③	④
13. I am jittery .....	①	②	③	④
14. I feel "high strung" .....	①	②	③	④
15. I am relaxed .....	①	②	③	④
16. I feel content .....	①	②	③	④
17. I am worried .....	①	②	③	④
18. I feel over-excited and "rattled" .....	①	②	③	④
19. I feel joyful .....	①	②	③	④
20. I feel pleasant .....	①	②	③	④



## SELF-EVALUATION QUESTIONNAIRE

### STAI FORM X-2

NAME \_\_\_\_\_ DATE \_\_\_\_\_

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant .....	①	②	③	④
22. I tire quickly .....	①	②	③	④
23. I feel like crying .....	①	②	③	④
24. I wish I could be as happy as others seem to be .....	①	②	③	④
25. I am losing out on things because I can't make up my mind soon enough ....	①	②	③	④
26. I feel rested .....	①	②	③	④
27. I am "calm, cool, and collected" .....	①	②	③	④
28. I feel that difficulties are piling up so that I cannot overcome them .....	①	②	③	④
29. I worry too much over something that really doesn't matter .....	①	②	③	④
30. I am happy .....	①	②	③	④
31. I am inclined to take things hard .....	①	②	③	④
32. I lack self-confidence .....	①	②	③	④
33. I feel secure .....	①	②	③	④
34. I try to avoid facing a crisis or difficulty .....	①	②	③	④
35. I feel blue .....	①	②	③	④
36. I am content .....	①	②	③	④
37. Some unimportant thought runs through my mind and bothers me .....	①	②	③	④
38. I take disappointments so keenly that I can't put them out of my mind ....	①	②	③	④
39. I am a steady person .....	①	②	③	④
40. I get in a state of tension or turmoil as I think over my recent concerns and interests .....	①	②	③	④

APPENDIX B

INFORMATION DATA

DATE: \_\_\_\_\_

Length of Sentence \_\_\_\_\_

Date of Arrival \_\_\_\_\_

Release Date \_\_\_\_\_

Native \_\_\_\_\_ Metis \_\_\_\_\_ White \_\_\_\_\_

Date of Birth \_\_\_\_\_

Offence \_\_\_\_\_

\_\_\_\_\_

Sentence \_\_\_\_\_

How many times have you been in prison over the past 5 yrs? \_\_\_\_\_

Living Location \_\_\_\_\_

Work Location \_\_\_\_\_

(Main Bldg., School, Commerceaide, Portage Project,  
Work Temporary Absence)

Marital Status: 1)Single \_\_\_\_\_ 2)Married or Commonlaw \_\_\_\_\_

3)Separated, Divorced or Widowed \_\_\_\_\_

Number of Children \_\_\_\_\_