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AN IN-DEPTH EXAMINATION OF PATIENT VERBAL BEHAVIOUR CONCOMITANT WITH STRONG LAUGHTER

RICHARD MARKOW

Dissertation presented to the School of Graduate Studies, University of Ottawa, as partial fulfillment of the requirements for the degree of Doctor of Philosophy

Ottawa, Canada

1987

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CURRICULUM STUDIORUM

Richard Markow was born in Hamilton, Ontario, January 18, 1951. He received the Bachelor of Arts degree in psychology in 1974 from Brock University, St. Catherines, Ontario and the Master in Psychology in 1977 from the University of Ottawa.

ABSTRACT

Patient strong laughter is viewed as a significant in-therapy event by virtually all therapeutic approaches. Some see laughter as therapeutically positive, welcomed and desirable. Others see laughter as an indication of problems or pathology. While it has been suggested that risky behaviour underlies patient strong laughter, no empirical research has investigated what patients are doing during moments of strong laughter. The purpose of the present research was to (a) investigate patient verbal behaviours concomitant with strong laughter statements in an examination of the "risky behaviour" hypothesis, and (b) investigate the immediate and cumulative consequences of patient strong laughter across therapy sessions. The data consisted of 60 exerpts of strong laughter as well as all patient strong laughter and non-laughter statements from six complete therapy sessions. The data were categorized using a three-fold system of 1) Risky behaviour (including a five-fold set of subcategories), 2) Problematic-pathological state, and 3) Other. The findings lend support to the risky behaviour hypothesis. The preponderance (94.8%) of strong laughter occurred in statements judged to contain risky behaviour, and 5.2% occurred in statements judged to indicate problems or pathology. No statements occurred in the 'other' category. In addition, specific kinds of risky behaviour were identified. The findings also lend support for a unique relationship between strong laughter and risky behaviour. Most

patient strong laughter statements across the six sessions contained risky behaviour (88.2%) while a small proportion (17.4%) of all other patient statements contained such behaviour. Specifically, two subcategories of risky behaviour were identified as uniquely related to strong laughter. No support was found for an immediate or cumulative effect of patient strong laughter regarding an increase in risky or problematic-pathological behaviour across the six sessions. The implications for the clinical theory of laughter and for psychotherapeutic practice were discussed for those who view patient strong laughter as therapeutically valuable or therapeutically dangerous. Possible directions for further research were outlined.

TABLE OF CONTENTS

Introduction..... xi

CHAPTER I: REVIEW OF THE LITERATURE

The Target Event: Defining Characteristics

Laughter as a Singular, Discrete, Low-Frequency Event..... 2
Laughter as Possessing High Energy, Strength, and Intensity..... 2

The Significance of Patient Strong Laughter in Psychotherapy

Strong Laughter as a Therapeutically Meaningful In-Therapy Event.... 4
Strong Laughter as a Diagnostially/Prognostically Meaningful In-Therapy Event..... 6
Research Literature..... 7

The Nature of Patient Behaviours in Strong Laughter Epochs

Clinical-theoretical Literature..... 10
Risky behaviour..... 10
Problematic-pathological state..... 11
Research Literature..... 12
Non-psychotherapy studies..... 12
Psychotherapy studies..... 14
Summary: Expectations of the Nature of Patient Behaviours in Strong Laughter Epochs..... 17

Problem, Hypotheses, and Research Strategies

Hypothesis 1: The Concomitants of Strong Laughter..... 19
Hypothesis 2: The Consequences of Strong Laughter..... 21

Implications

Hypothesis 1..... 23
Hypothesis 2..... 26

CHAPTER II: METHODOLOGY

Research Strategy..... 29
Data Pool..... 32
Data Form: Audiotape, Transcript..... 33
Date Sample: Segments and Complete Sessions..... 34
Selection of Strong Laughter Epochs..... 35
Selection of Complete Therapy Sessions..... 36
Unit of Study..... 37
Category System of Concomitant Patient Behaviours..... 37
1. Risky behaviour..... 37
2. Problematic-pathological state..... 39
3. Other..... 40
Judges..... 42
Training of the judges..... 42

Procedure

Hypothesis 1: The Concomitants of Strong Laughter..... 43
Hypothesis 2: The Consequences of Strong Laughter..... 46
Statistical Methods..... 49
Inter-judge reliability..... 49
Criteria for categorization of patient statements..... 49
Rescoring..... 49
Statistical analysis..... 50

CHAPTER III: RESULTS

Data Collection and Interrater Agreement

Establishment of the Data Base..... 52
Identification of strong laughter..... 52
Distribution of strong laughter exerpts across therapists and therapeutic approaches..... 53
Identification of complete therapy sessions..... 56
Reliability of Judges' Ratings..... 61
Strong laughter exerpts: Interrater agreement..... 62
Complete therapy sessions: Interrater agreement..... 64
Reliability of Ratings: Transcript and Audiotape vs. Audiotape.... 66
Interrater Reliability..... 68

The Main Hypotheses

Hypothesis 1: The Concomitants of Strong Laughter..... 69
Hypothesis 1.1: Main Findings..... 69
A Closer Examination of the Main Findings for Hypothesis 1.1..... 72
Hypothesis 1.1: Summary of Findings..... 75
Hypothesis 1.2..... 76
Hypothesis 1.2: Main Findings..... 77
A Closer Examination of the Main Findings for Hypothesis 1.2..... 79
Hypothesis 1.2: Summary of Findings..... 83
Hypothesis 2: The Consequences of Strong Laughter..... 84
Hypothesis 2.1: Main Findings..... 85
Hypothesis 2.1: Summary of Findings..... 90
Hypothesis 2.2: Main Findings..... 92
Hypothesis 2.2: Summary of Findings..... 98

Additional Findings

Sex Differences in Strong Laughter..... 99
Sex Differences in Risky Behaviour..... 99

CHAPTER IV: DISCUSSION AND CONCLUSIONS

The Concomitants of Patient Strong Laughter

Strong Laughter and Risky Behaviour..... 104
Strong Laughter and Risky Behaviour: Implications..... 105
Strong laughter as a therapeutically desirable in-therapy event..... 105
Strong laughter as a therapeutically undesirable in-therapy event..... 108
Sub-Categories of Risky Behaviour..... 110
The content of strong laughter statements..... 114
Strong laughter and problematic-pathological states..... 117
Risky Behaviour in Patient Strong Laughter and Non-Laughter Statements..... 120
The kinds of risky behaviours distinctively associated with strong laughter statements..... 121
Implications..... 122

The Consequences of Patient Strong Laughter

The Immediate Consequences of Strong Laughter..... 126
Implications for practice..... 128
The Cumulative Effects of Strong Laughter..... 128
Implications for practice..... 129

The Theoretical Significance of Risky Behaviour Accompanying Patient Strong Laughter

Strong Laughter as a Welcomed and Desirable Event..... 131
Strong Laughter as an Unwelcomed and Undesirable Event..... 135

Further Research

Extension and Verification of the Study..... 137
Improvements to the Category System..... 138
The Consequences of Patient Strong Laughter..... 140
Strong laughter as a meaningful process event..... 140
Strong laughter as a meaningful in-therapy outcome..... 142
Operations designed to bring about therapeutically valued strong laughter events..... 143
Operations designed to sustain and develop what is therapeutically valued in strong laughter events..... 144
A Model of Patient Strong Laughter..... 146
Additional Research Variables Related to Strong Laughter..... 148
Patient variables..... 148
Therapist variables..... 150
Therapeutic approach..... 150
Phase of therapy..... 150

Conclusions

REFERENCES..... 157

APPENDIX A: Instructions for the Identification of Patient Strong Laughter..... 170

APPENDIX B: Instructions for Categorizing Patient Statements..... 173

LIST OF TABLES

Table		page
1	Distribution of Strong Laughter Exerpts Across Therapists, Patients and Sessions.....	54
2	Distribution of Strong Laughter Exerpts Across Therapists, Patients, and Sessions by Sex of Therapists and Patients.....	55
3	Distribution of Nature of Problem Area Presented in Sessions Containing 60 Exerpts of Strong Laughter.....	57
4	Incidence of Patient Strong Laughter Across Six Sessions with Six Clients.....	58
5	Distribution of Six Complete Therapy Sessions by Therapists and Sex of Patient.....	59
6	Distribution of Nature of Problem Area Presented in Six Complete Sessions.....	60
7	Percentage of Patient Statements Attaining Criterion Using Transcript and Audio Versus Audio for Three-fold and Five-fold Category Systems.....	67
8	Distribution of Verbal Behaviours Concomitant with Strong Laughter Using Three-fold Category System.....	71
9	Distribution of Verbal Behaviours Concomitant with Strong Laughter Using Five-fold Category System.....	74
10	Distribution and Proportion of Risky Behaviour in Strong Laughter and Non Laughter Statements in Combined Six Sessions with Six Patients.....	78
11	Distribution and Proportion of Risky Behaviour in Strong Laughter and Non Laughter Statements in Six Sessions with Six Patients.	80

12	Distribution and Proportion of Verbal Behaviours Concomitant with Strong Laughter and Non Laughter Statements using Five-fold Category System.....	82
13	Distribution and Proportion of Risky Behaviours and Problematic-Pathological Statements in Strong Laughter Epoch Statements and Non Laughter Statements for Six Sessions.....	87
14	Distribution and Proportion of Risky Behaviour in Strong Laughter Epoch Statements and Non Laughter Statements for Six Sessions.	89
15	Distribution and Proportion of Problematic-Pathological Behaviour in Strong Laughter Epochs and Non Laughter Statements for Six Sessions.....	91
16	Proportion of Risky Behaviour in Each Sequential Epoch Consequent to Strong Laughter in Six Sessions.....	95
17	Proportion of Behaviour Indicative of Problems-Pathology in Each Sequential Epoch Consequent to Strong Laughter in Six Sessions	97
18	Distribution of Incidence of Patient Strong Laughter by Sex of Patient Acorss Six Sessions.....	100
19	Proportion of Risky Behaviours by Sex of Patient Across Six Therapy Sessions.....	101

INTRODUCTION

Patient strong laughter is viewed by virtually all therapeutic approaches as a significant in-therapy event. Strong laughter may be seen as an expression of therapeutic experiencing, positive movement, freeing of feeling, and/or the welcomed opening of deeper personality processes (e.g. Bugental, 1979; Farrelly & Brandsma, 1974; Jackins, 1965; Mahrer, 1983; Mahrer & Gervaize, 1984; Perls, 1970; Pierce, Nichols, & Dubrin, 1983; Polster & Polster, 1973). Conceptualized as such, patient strong laughter is significant and meaningful to the degree that it is indicative of positive therapeutic movement. It makes sense therefore, for a therapist to promote and encourage patient strong laughter.

Conversely, patient strong laughter may be seen as pathognomic of serious disturbance (Levine, 1976; Noyes & Kolb, 1963), as a dangerous expression of unconscious impulses (Bergler, 1956; Freud, 1960; Grotjahn, 1970; Harman, 1981; Koestler, 1964; Plessner, 1970), and as a defensive avoidance against threat (Ansell, Mindess, Stern, & Stern, 1981; Kubie, 1971; Zuk, 1966). Patient strong laughter conceptualized in this fashion, is significant and meaningful to the degree that it is psychodynamically indicative or symptomatic of some underlying problematic or pathological state. Rather than promoting and encouraging strong laughter, a therapist is likely to use the laughter as a diagnostic or prognostic indicator.

Patient strong laughter is, therefore, according to the clinical-conceptual literature, a significant in-therapy event, for better or for worse, significant as a valued event or as a problematic or pathological indicator.

To date, there are no empirical studies whose exclusive aim is to show what occurs during moments of strong laughter, how patients are being and behaving. There is no research on what may be occurring during these significant moments or epochs. One study (Gervaize, Mahrer, & Markow, 1985) suggests that a common occurrence during moments of patient strong laughter may be the presence of "risky" behaviour. This "risky behaviour hypothesis" forwards the proposition that patient strong laughter is a reaction to or concomitant of the carrying out of risky behaviour, behaviour defined as wicked, tabooed, nasty, devilish, outrageous, impulsive, aggressive, not typically expressed, excitingly threatening.

The primary purpose of the present investigation is to provide an in-depth examination of what patients are doing, how they are being and behaving, during moments of strong laughter. A second purpose will be to examine the in-therapy effects or patternings of patient strong laughter across entire sessions containing multiple instances of moments of strong laughter. These purposes will be accomplished by carrying out an intensive, in-depth examination of what is occurring during moments or epochs of patient strong laughter as well as what is occurring across

patient statements in psychotherapy sessions which contain multiple instances of patient strong laughter.

This research strategy is in accord with the call of many psychotherapy researchers for intensive in-depth examination of what occurs in significant moments or epochs during the therapy session (Elliott, 1983a, 1983b; Fiske, 1977; Greenberg, 1975, 1979, 1980, 1983; Horowitz, 1979; Kiesler, 1973; Luborsky & Auerbach, 1969; Mahrer, 1983, 1985; Rice & Greenberg, 1981, 1984). The aim is to discover more of what is occurring during moments which have been flagged as significant, either as therapeutically problematic, or as valuable, change-producing, good process, improvement, progress, therapeutic movement. This is accomplished by going into these moments and making a careful in-depth, fine-grained examination of what is occurring, especially of how the patient is being and behaving.

The present study will use audiotapes of actual psychotherapy sessions in which patients have exhibited instances of strong laughter during the course of individual adult psychotherapy. A careful, in-depth examination of the patients' verbal behaviour will be made, in light of the clinical and research expectations related to what may be occurring during moments of patient strong laughter.

The clinical and theoretical importance of the findings fall into five areas or implications: (a) To examine the "risky behaviour" hypothesis of what is occurring in these epochs. (b) To examine the extent

to which such strong laughter events may be regarded as instances of a pathological indicator or state. (c) For therapeutic approaches which value such events, to draw implications for how strong laughter events may be facilitated, and how they may be sustained and developed. (d) For therapeutic approaches which regard such events as problematic, to provide a closer examination of the nature of the problematic or pathological state. (e) To examine the consequences of strong laughter epochs across single sessions in order to study the cumulative effects of strong laughter as therapeutically welcomed and valuable or problematic. Accordingly, the implications are both clinical and theoretical.

Chapter I

REVIEW OF THE LITERATURE

Clinical theory, research, and practice which describe patient strong laughter as significant tend to agree on the defining characteristics of this target event. The first purpose is to identify these defining characteristics so as to clarify the target event of the research.

The second purpose is to identify the significance of patient strong laughter as it occurs in therapy, and the nature of patient behaviours which are held as occurring in the strong laughter epochs. On the basis of the review of the pertinent clinical, theoretical, and research literatures, a number of hypotheses will be framed. These will focus on the nature of the concomitant verbal behaviours in strong laughter statements and within the context of single sessions. Finally, the clinical and theoretical implications will be outlined.

The Target Event: Defining Characteristics

A review of laughter in psychotherapy indicated that patient strong laughter has been regarded as a significant in-therapy event when it exhibits the following two characteristics (Mahrer & Gervaize, 1984):

Laughter as a Singular, Discrete, Low-Frequency Event

The target laughter occurs as a singular and discrete, low-frequency event in the session, rather than as a high-frequency stylistic characteristic of the patient's consistent mode of behaviour in the session (Ansell et al, 1981; Bugental, 1979; Greenwald, 1975; Grotjahn, 1970; Harman, 1981; Kris, 1940; Levine, 1976; Nichols, 1974; Nichols & Bierenbaum, 1978; Olsen, 1976, Perls, 1970; Poland, 1971; Polster & Polster, 1973; Rosenheim, 1974; Shaw, 1960; Viney, 1983; Yassky, 1976). Strong laughter can occur as a patient characteristic. That is, a patient may have a tendency or a habit of laughing strongly during the therapy session. This type of laughter does not fall under the classification of a significant in-therapy event. Significant laughter is laughter that is unique, it is distinctive, and is not a characteristic style of the patient.

Laughter as Possessing High Energy, Strength, and Intensity

The target laughter is characterized by high energy, strength, intensity, saturation, and amplitude rather than low energy and mild volume or expressiveness. It has been variously described as hard, loud, explosive, and heartfelt (Bugental, 1979; Nichols & Zax, 1977; Shorr, 1972). The strength of the target laughter may be relative to the

patient's own baseline energy level and excludes mild or lower strength laughter, chuckles, giggles and snickers.

Patient laughter of interest to the present study must occur as a singular, discrete, low-frequency event which possesses high energy, strength, and intensity. This is the kind of laughter which has been flagged as therapeutically significant. All other laughters do not form part of the target domain that this study seeks to investigate.

The Significance of Patient Strong Laughter in Psychotherapy

Patient strong laughter is seen as a significant in-therapy event across virtually all psychotherapeutic approaches. That is, no matter what school of psychotherapy one subscribes to, when a patient is laughing strongly in a session, the laughter is seen as a meaningful event. However, there is a difference of therapeutic opinion as to the precise meaning of this event. This difference in the nature of the meaning of laughter has conceptual as well as practical importance, as the meaning laughter holds will determine how the therapist views the laughter, whether the therapist will attempt to promote the occurrence of the laughter, and what the therapist will do with the laughter which occurs. What are the different schools of thought on the meaningfulness of patient strong laughter? A recent comprehensive review (Mahrer & Gervaize, 1984)

identifies two global schools related to the significance of patient strong laughter.

Strong Laughter as a Therapeutically Meaningful In-Therapy Event

In one school, patient strong laughter is a significant and meaningful event in that something therapeutically positive is happening, something worthy of striving for is occurring, some inherently beneficial movement is being witnessed. In this sense, the laughter is a valued event, welcomed and desirable. There are five reasons why laughter is conceptualized as a desirable in-therapy event, according to this school.

First, strong laughter may be seen as indicative of a desirable shift in the patient's self concept or self perspective. This shift may be in the direction of more acceptance of oneself (Farrelly & Brandsma, 1974; Mindess, 1971, 1976; Perls, 1970), of seeing oneself in accord with the therapist's interpretations and with greater insight into the self (Berne, 1972; Grotjahn, 1966, 1970; Mindess, 1971; Poland, 1971; Rose, 1976; Schimel, 1978), or of a positive change in personal cognitions and constructs (Viney, 1983). This valuing of strong laughter is congruent with the views of a broad band of approaches including psychoanalytic therapy, direct decision therapy, Gestalt therapy, provocative therapy, Adlerian therapy, interpersonal therapy, and personal construct therapy (e.g. Greenwald, 1974; Kris, 1940; Mindess, 1976; O'Connell, 1981; Poland, 1971; Shaw, 1960; Sullivan, 1954; Viney, 1983).

Second, strong laughter is seen as an expression of a valued or optimal state. This state has been variously characterized by energy, freedom, zest, openess, awareness, acceptance, mastery, and inner harmony (Berne, 1970; Harman, 1981; Jackins, 1965; Jasnow, 1981; Kris, 1940; Levine, 1976; Mindess, 1971; Olsen, 1976; Perls, 1970; Viney, 1983). Strong laughter as such is seen by many clinical theorists as a concomitant of such constructs as actualization, psychological health, personal growth, integration, authenticity, maturity, adjustment, healthy life outlook (e.g. Greenwald, 1975; Levine, 1976; Mahrer, 1978, 1983; Mindess, 1971, 1976; O'Connell, 1981; Shaw, 1960).

Third, strong laughter is indicative of a positive patient-therapist relationship. This relationship may be characterized by warmth and acceptance, intimacy, and a reduction of emotional distance (e.g. Mindess, 1971, 1976; Narboe, 1981). Laughter as an expression of such a relationship is a position found across a number of therapeutic approaches including feeling expressive therapy (Pierce et al., 1983), provocative therapy (Farrelly & Brandsma, 1974), existential-humanistic therapy (Bugental, 1979), direct decision therapy (Greenwald, 1974), Gestalt therapy (Polster & Polster, 1973), and some psychoanalytic schools (e.g. Grotjahn, 1966; Rose, 1969; Rosenheim, 1974).

Fourth, strong laughter is indicative of therapeutic change. This is with respect to those approaches that believe that the central axis of psychotherapeutic change comes about through heightened experiencing,

strong feeling expression, emotional flooding, or catharsis (Farrelly & Brandsma, 1974; Harman, 1981; Jackins, 1965; Mahrer, 1978, 1983; Nichols & Zax, 1977; Olsen, 1976; Perls, 1970; Pierce et al, 1983).

Lastly, strong laughter is seen as a corrective experience. Lewis (1971) sees laughter as a release for the feelings of shame and guilt. Scheff (1984) believes laughter to be the cathartic completion of the emotional cycle of shame while Retzinger (1985) sees laughter as instrumental in the resolution of the resentment process by dispelling shame and allowing anger to dissipate. Furthermore, it is the position of this researcher that strong laughter is a welcomed and desirable in-therapy event. As such, the researcher joins in the above mentioned approaches which view patient strong laughter as a valued therapeutic event.

The above are the five reasons why patient strong laughter is conceptualized as a desirable in-therapy event. This view of strong laughter as a valued event is held by many therapeutic approaches, but is is especially espoused by the humanistic-existential-experiential approaches. These approaches are unequivocal in their view of the desirability and promotability of patient strong laughter.

Strong Laughter as a Diagnostically/Prognostically Meaningful In-Therapy Event

According to a second school, patient strong laughter is a significant and meaningful event whose meaningfulness is derived from the laughter's psychodynamic context. The laughter is diagnostically and prognostically meaningful in that it signals some problematic or pathological state. In this sense, the laughter is not an especially welcomed and desirable event. The literature offers three reasons why patient strong laughter is seen as meaningful yet undesirable and perhaps dangerous.

First, strong laughter is seen as a pathognomic expression of serious psychological disturbance (Levine, 1976; Noyes & Kolb, 1963). Second, strong laughter is seen as an expression of dangerous unconscious impulses (Bergler, 1956; Freud, 1960; Grotjahn, 1970; Harman, 1981; Koestler, 1964; Plessner, 1970). Third, strong laughter is seen as a defensive avoidance against internal or external threat (Ansell, Mindess, Stern, & Stern, 1981; Kubie, 1971; Levine, 1980; Paul, 1978; Zuk, 1966). The above views are held predominantly by psychoanalytic-psychodynamic schools of therapy. While laughter is meaningful diagnostically or prognostically with reference to problematic or pathological states, it is not a desired goal event within the psychotherapy session. Strong laughter as such is not to be promoted, but it is to be used or interpreted.

In summary, strong laughter is held as a significant therapeutic event by both of the aforementioned schools of psychotherapeutic thought. One school, composed predominately of humanistic-existential-experiential thinkiers, views laughter as a desirable event. The second school, composed predominantely of psychoanalytic thinkers, views laughter as an undesirable or diagnostically revealing event within the therapy session.

Research Literature

Although patient strong laughter holds meaning across most therapeutic approaches, only two studies have examined this event within the context of therapy, and neither focused on patient verbal behaviour concomitant with the strong laughter. Nichols (1974) and Nichols and Bierenbaum (1978) examined the impact of catharsis on the outcome of brief psychotherapy. Patients being seen at a university counselling centre underwent emotive psychotherapy adapted from

Jackins (1965) Re-Evaluation Counselling. This form of counselling consists basically of techniques employed to elicit emotional expression. Raters, working from the actual tapes of the sessions, assessed emotional catharsis as measured by the number of seconds of in-therapy strong feeling expression. Laughter formed one of the indices of strong feeling expression. A significant relationship was reported between positive therapeutic outcome as measured by changes on MMPI subscales, changes in ratings of personal satisfaction, and progress toward behaviourally defined goals and in-therapy feeling expression which included laughter. These studies lend support to the notion that laughter is a therapeutically meaningful event, one that is related to measures of positive extra-therapy outcome. These studies however lack the research strategy necessary to discover how patients are being and behaving at the moment they are laughing strongly. The research literature in fact has litle to contribute towards an understanding of what occurs during significant moments of strong laughter. A recent review of such strong laughter in psychotherapy (Mahrer & Gervaize, 1984) cited the absence of research on what is occurring during these moments and concluded that "it would be valuable to examine what patients are doing and how they are acting in the concomitant vicinity of the hearty laughter" (p. 515).

In summary, the predominance of psychotherapeutic approaches regards discrete strong laughter as a genuinely significant and meaningful event,

though one school of thought conceptualizes the event as welcomed and desirable while another conceptualizes the same event as potentially problematic and perhaps even dangerous. If such laughter is significant, what is the nature of the related patient behaviour which gives the strong laughter its significance? How is the patient being and how is the patient behaving which give the laughter its meaning as welcomed and desired or problematic and dangerous? This is the topic of the following section.

The Nature of Patient Behaviours in Strong Laughter Epochs

The preceding section has established patient strong laughter as a significant and meaningful event. The question remains as to what patients specifically do while they are laughing. There is a difference in being able to answer the question of why laughter is significant and, on the other hand, what patients are actually doing while they are engaged in the laughter. These are two different questions. What can be said then about the nature of the patients' verbal behaviour during such moments of laughter? Although there is no direct research on this question, the above clinical theories of strong laughter, coupled with some softly related research studies, offer some speculations with respect to the nature of patient verbal behaviours during strong laughter epochs.

Clinical-theoretical Literature

Based upon their review of the clinical-theoretical literature, Mahrer and Gervaize (1984) offer two speculations with respect to the above mentioned patient behaviours. The first has to do with the occurrence of risky behaviour, the second with the occurrence of a problematic-pathological state.

Risky behaviour. The clinical theorists who regard patient strong laughter as a meaningful in-therapy event tend to present soft clinical evidence for what may be taken as a "risky behaviour" hypothesis. That is, the commonality underlying the various reasons for regarding strong laughter as a meaningful event was framed by Mahrer and Gervaize (1984) as suggesting that during the strong laughter the patient is generally behaving in ways that are risky (wicked, tabooed, nasty, devilish, outrageous, impulsive, aggressive, not typically expressed, excitingly wicked and threatening). The framing of this hypothesis resulted from a survey of the methods used by therapists to promote patient strong laughter. From the clinical writings they were able to identify eight therapeutic methods linked with the consequent occurrence of strong laughter. The commonality underlying the various methods for promoting patient strong laughter is the presence of risky behaviour. This expectation of risky behaviour is shared by clinical theories who conceptualize laughter as welcomed and desirable and also by clinical theories who conceptualize strong laughter as problematic and perhaps

dangerous. These latter theories by definition see risky behaviour as signs of pathology and dangerous. Risky behaviour is one expectation that is held by theorists regardless of whether the laughter is conceptualized as a positive therapeutic event or as a pathological one.

Problematic-pathological state. The second speculation arises from the clinical theorists who view patient strong laughter as a diagnostically/prognostically meaningful event. These clinical theorists derive meaning from the laughter's psychodynamic context. Laughter may present as a pathognomic expression of serious psychopathology (Levine, 1976; Noyes & Kolb, 1963), as an expression of dangerous unconscious processes (Bergler, 1956; Freud, 1960; Grotjahn, 1970; Harman, 1981; Koestler, 1964; Plessner, 1970), or as a defensive avoidance against internal or external threat (Ansell et al., 1981; Kubie, 1971; Levine, 1980; Paul, 1978; Zuk, 1966). According to this clinical theory, strong laughter may be accompanied by indications of a pathological, disturbed, problematic, anxiety-ridden, avoidant, painful psychopathological state.

The clinical-theoretical literature is able to offer the above mentioned speculations as to the nature of patient verbal behaviours occurring during strong laughter epochs. Theorists who see laughter as a therapeutically positive event tend to expect patients to be engaging in risky behaviours. Theorists who see laughter as therapeutically dangerous would expect patients to be engaging in both risky behaviours and behaviours which are more directly indicative of problems or pathology.

What does the research literature contribute to the understanding of patient behaviours during moments of strong laughter?

Research Literature

A review of the research literature offers little relevant information with respect to the question of what patients are actually doing while they are laughing strongly. Two domains of research will be reviewed, the first dealing with non-psychotherapy studies, the second with psychotherapy studies.

Non-psychotherapy studies. Several studies have examined the physiological concomitants and effects of laughter (e.g., Averill, 1969; Fry & Stoft, 1971; Godewitsch, 1976; Jones & Harris, 1971; Scheff, 1979). While these studies provide physiological correlates of laughter, such as increased autonomic nervous system activity, they offer no insight into concomitant patient behaviours. Nor do the studies and reports which link laughter to good physical health (Bierman & Toohey, 1980; Bresler, 1979; Cousins, 1976; Mazur, 1981; Moody, 1978; Scheff, 1979). Both groups of studies provide few answers to the present question under investigation.

Another area of research related to laughter is that of humour. The rationale is that laughter is seen as an expression of humour. One area of investigation focusses on humour and the notion of psychological health. Humour has been linked to an individual's ego strength (Darmstadler, 1965; Goldsmith, 1963; Grossman, 1966; Roberts, 1958), degree of reality contact

(Roberts & Johnson, 1957), and degree of empathy (Epstein & Smith, 1969; Roberts & Johnston, 1957). In addition, humour has been found to be more characteristic of normals than hospitalized psychiatric patients (Levine & Abelson, 1959; Levine & Redlich, 1960; Roberts, 1958) whose humour response may be seen as impaired (Senf, Huston, & Cohen, 1956) or distorted (O'Connell, 1960).

A second area of investigation focusses on the use of humour as a coping mechanism. Humour has been used by people to adapt to their role as newly admitted hospital patients (Cosner, 1959), by disabled people to facilitate interaction with non-disabled individuals (Russell & Rosen, 1949; Wilkes, 1972), and by subjects to reduce the negative effect of stress experiences (Martin & Lefcourt, 1983). Again, these studies offer no hints as to how patients are behaving during strong laughter, if indeed they are engaged in strong laughter in the first place.

A third area of investigation links humour to a number of personality and behavioural indices including intelligence (Cunningham, 1962), creativity (Ferris, 1972), anxiety (Doris & Fierman, 1956; Hammes & Wiggins, 1962; Hom, 1966), expression of hostility (e.g., Byrne, 1956), and a host of personality and temperamental factors (e.g., Cattell & Luborsky, 1947; Kambouropoulou, 1930; Landis & Ross, 1933; Omwake, 1937; Stump, 1939). As interesting as these studies may be, their results have little bearing on the research question under investigation.

To summarize, the non-psychotherapy domain of research on laughter and humour contributes little to the understanding of how patients are behaving during moments of strong laughter.

Psychotherapy studies. There are no studies which deal directly with the question of patient behaviours during strong laughter epochs. As with the non-psychotherapy literature, studies are more likely to deal with humour than with actual incidents of laughter. Most studies of this nature examine therapist-initiated humour and the effect it has on various ratings of the therapist. The findings generally support the notion that individuals exposed to humour either before a session (Labrentz, 1974) or during the session by the therapist (Foster & Reid, 1983; Megdell, 1984) tend to rate the counsellor and/or the counselling relationship in a more positive light. These studies have little to offer with respect to how patients are behaving as they focus on therapist humour as opposed to patient laughter, and are either analogue or quasianalogue in nature.

As mentioned earlier, a review of the relevant research notes the absence of empirical evidence related to the nature of patient verbal behaviours during strong laughter epochs (Mahrer & Gervaize, 1984). There is to this date no hard evidence to indicate what patients are doing, how they are being and behaving during these moments of strong laughter. There is however, some soft empirical support for the risky behaviour hypothesis.

Gervaize, Mahrer and Markow (1985) studied therapist statements immediately antecedent and penultimate to instances of low-frequency, high intensity patient laughter. On the basis of a review of the clinical literature (Mahrer & Gervaize, 1984) eight categories of therapist statements were proposed as preceding patient strong laughter events as compared with non-laughter and mild or moderate laughter. From a pool of 280 hours of audiotaped sessions conducted by 15 professional therapists with 75 adult patients in individual psychotherapy, the design enabled examination of therapist statements preceding 60 instances of strong laughter, 30 instances of non-laughter, and 30 instances of mild/moderate laughter. The results confirmed the use of the hypothesized categories of therapist statements antecedent to the strong laughter events. Although not examining what patients were actually doing, how they were being and behaving during the strong laughter epochs, the findings pointed to the genuine likelihood of risky behaviour as generated by the antecedent conditions. With respect to patient strong laughter the authors conclude that: "The first condition is that the patient is in the near vicinity of being or behaving some way that is risky (and that) ... The therapist carries forward the risky behaviour into concrete and specific action, rendering the behaviour alive and real, immediate and expressed" (Gervaize, Mahrer, & Markow, 1985, p. 72).

A second study specifically used methods whereby the therapist deliberately introduced humour into the session with the aim of having the

patient share in the humour and laugh. Prerost (1984) devised a method used in individual psychotherapy with adolescents known as the Humourous Imagery Situation Technique (HIST). The technique makes use of a guided daydream/fantasy procedure whereby the therapist introduces humour into a scene that is based upon real life experiences that are potentially threatening and stressful to the patient. The therapist attempts to involve the patient with any laughter that is occurring in the scene directed toward the patient, so that the patient ends up virtually laughing at herself. Secondly, the therapist attempts to interject laughter-producing elements into the scene with the goal of having the patient laugh at the foibles and misfortunes of the significant other in the scene. This procedure allows the patient to release hostile impulses safely through humour and laughter. This release of impulses was related to significant changes in the patient's self reports of increased favourability of self-concept ratings and a decrease in anxiety ratings. The findings offer tentative soft support for the notion of the patient engaging in risky behaviours while laughing. However, the results must be examined with caution as the researcher did not report specifically the frequency of patient laughter during the scenes.

A third study (Retzinger, 1985) while analogue in nature, may with caution join the ranks of the above two studies offering soft support for the risky behaviour hypothesis. The study consisted of nonpsychotherapeutic interviews of volunteer college women students

discussing recent life situations that make them angry. The interviewer used methods expressly designed to elicit strong feeling, for example by imagining direct anger expression, by exaggerated description, and by sheer encouragement to express the anger. Of six interviews selected for careful study, spontaneous laughter occurred in three. The findings indicated that the three subjects who laughed while discussing their resentment, as compared with the three without laughter, showed a substantial decrease in the amount of anger shown on their faces. By the use of methods designed to heighten, demonstrate, express strong emotion arising from the recent life situations that make the subjects angry, the study suggests that the subjects may likely be engaging in risky behaviour.

Summary: Expectations of the Nature of Patient Behaviours in Strong Laughter Epochs

There is precious little to be derived from the clinical, the theoretical, or the research literatures with respect to what patients are doing, how they are being and behaving during moments of significant laughter. To date, no research has directly addressed this issue. While virtually all therapeutic approaches have identified discrete, low-frequency, high intensity patient laughter as significant and meaningful, either as an indicator of positive therapeutic movement or an indicator of problems-pathology, they have not directly addressed the

question of how the patient behaves during strong laughter epochs. While there is some research support for the notion of laughter as a desirable in-therapy event (Nichols, 1974; Nichols & Bierenbaum, 1978), the research fails to address the question of how patients are actually behaving.

At best, there are only some soft clinical and research hints related to how patients are behaving during strong laughter epochs. These hints relate patient strong laughter to risky behaviour (Mahrer & Gervaize, 1984), an hypothesis which receives indirect support (Gervaize, Mahrer, & Markow, 1985; Prerost, 1984; Retzinger, 1985), and to problematic-pathological states.

The absence of empirical evidence invites research examining patient verbal behaviours in moments of significant laughter. The purpose of this study is to gather such data. Based upon the above mentioned soft hints, there are two expectations with respect to the nature of patients' behaviours during strong laughter epochs. It is expected that when patients are laughing strongly they will be engaged in behaviours which are predominately risky in nature and/or behaviours which are indicative of some problematic-pathological state.

Problem, Hypotheses, and Research Strategies

The general problem is to investigate patient verbal behaviours in strong laughter statements, and thereby to examine expectations from the

clinical literature that these statements would include risky behaviours and behaviours indicative of a pathological state. Two hypotheses may be defined, and the hypotheses may be investigated by means of two complementary research strategies.

Hypothesis 1: The Concomitants of Strong Laughter

One expectation provided by the clinical literature is that the predominance of verbal behaviours concomitant with strong laughter should consist of risky behaviours. This expectation is shared by clinical theories holding that strong laughter is welcomed and desirable and also by clinical theories holding that strong laughter is problematic and dangerous. These latter clinical theories also expect that a measure of strong laughter statements would be characterized by verbal behaviours indicative of a pathological state.

These expectations may be examined by means of two complementary research strategies. In one, the strategy includes a large pool of audiotaped psychotherapy sessions from a large number of psychotherapists and clients. From this pool, the strategy is to identify instances of strong laughter which are discrete, low-frequency events in the session. Given a large number of such instances, the aim will be to examine strong laughter statements concomitant with verbal behaviours judged as risky, indicative of a pathological state, or judged as falling into an "all

other" category. This research strategy allows for examination of the following hypothesis:

> 1.1 When verbal behaviours concomitant with discrete, low-frequency strong laughter are judged as (1) indicative of risky behaviour, (2) indicative of a pathological state, or (3) falling in an "all other" category, it is predicted that the proportion of verbal behaviours in (1) will be significantly greater than that falling in (2), and that the proportion falling in (2) will be significantly greater than the proportion falling in (3).

In a complementary research strategy, several complete audio-taped sessions conducted by several different therapists may be examined. The target sessions will contain a number of discrete, low-frequency strong laughter instances, and will enable examination of all instances of risky behaviours and behaviours indicative of a pathological state. Each patient statement, including those containing strong laughter, will be judged as containing or not containing verbal behaviours indicative of risky behaviour and indicative of a pathological state. This strategy allows an investigation of the distribution of patient statements including verbal behaviours indicative of risky behaviour and indicative of a pathological state as compared with the proportion of strong laughter statements including these two classes of verbal behaviours. The hypothesis may be stated as follows:

> 1.2 Within single sessions, the proportion of risky behaviour and/or behaviour indicative of problems or pathology in patient strong laughter statements will significantly exceed the proportion of risky behaviour and/or behaviour indicative of problems or pathology in patient non-laughter statements.

Hypothesis 2: The Consequences of Strong Laughter

The clinical literature indicates that if strong laughter is associated with risky behaviour and behaviour indicative of a pathological state, it may be expected that such behaviour would occur also as the consequences of strong laughter. This expectation is shared both by clinical theorists who regard strong laughter as welcomed and desired and those who regard strong laughter as problematic and dangerous, although the former group is less concerned with behaviours indicative of a pathological state. Nevertheless, both groups contribute to expectations of the consequences of strong laughter.

Since the frame of reference is a single session, the appropriate research strategy is the second one, i.e., several complete audiotaped sessions from several different therapists. The focus of investigation consists of the immediate consequences of strong laughter statements, specifically a small number of patient statements consequent to the strong laughter statement. One hypothesis examines the extent to which the immediate consequences of strong laughter statements include risky behaviour and/or behaviour indicative of pathology. This hypothesis may be stated as follows:

2.1 Within single sessions containing discrete, low-frequency strong laughter, the proportion of risky behaviours and/or behaviours indicative of problems or pathology will be significantly greater immediately following strong laughter compared to the proportion of these behaviours occurring in the balance of the patient non-laughter statements in each session.

The clinical expectations also allow for an examination of the cumulative effects of strong laughter. If the consequences of strong laughter include risky behaviour and behaviour indicative of pathology, then an hypothesis is warranted that these effects cumulate. Given a small number of strong laughter instances, the expectation is that there will be heightened effects of multiple instances of strong laughter. Accordingly, the hypothesis may be stated as follows:

> 2.2 Within single sessions containing discrete, low-frequency strong laughters, the immediate consequences of each subsequent strong laughter statement will significantly exceed the immediate consequences of the antecedent strong laughter statement in the frequency rates of risky behaviours and behaviours indicative of problems or pathology.

Given these hypotheses, the findings should also enable data-based examination of the clinical and theoretical implications discussed earlier. This will be done in the following section.

Before discussing the implications of the research, an issue related to the expectation of risky behaviour deserves consideration. The major expectation of this research is that when patients are engaged in strong laughter, their concomitant verbal behaviour will be indicative of risky behaviour. There is general support in the developmental/social psychological literatures to suggest that males are more likely to engage in risk-taking behaviours than are females. Empirical support is strongest in studies that have examined risk-taking behaviour in children (Appenfels & Hays, 1961; Ginsberg & Miller, 1982). Furthermore, male

children are found to be significantly more impulsive than female children when impulsivity is broadly defined to include insufficient control of impulses, inability to delay gratification, risk-taking, and overreactivity to frustration (Block, 1983; Block & Block, 1980). Should there be a direct or indirect parallel between risky behaviours as defined by this research and propensity for risk-taking behaviours as outlined in the developmental/social psychological literatures, then it may be interesting to examine for sex differences in the present study. While not a formal hypothesis, one may ask whether male patients engage in more risky behaviours than female patients? Also, do male therapists tend to bring out more risky behaviours in patients than female therapists? Are certain therapist-patient diads associated with the greater occurrence of risky behaviours? The findings will be used to inquire into these issues.

Implications

Hypothesis 1

The findings related to this hypothesis should shed light on how patients are being and what they are doing in strong laughter epochs. As was stated earlier, there is no research which directly addresses this question, only clinical speculation. The findings will provide a provisional answer. First of all, should the preponderance of strong

laughter statements fall into the "Risky behaviour" and "Problematic-pathological state" categories, the major clinical expectations would be supported. However, should the predominance of strong laughter statements fall into the "Other" category a clinical-theoretical reconceptualization of the nature of patient behaviours, and in fact the role of strong laughter, may be in order.

More specifically, the findings should allow for the closer examination of the "risky behaviour" hypothesis. If in fact the preponderance of strong laughter statements are related to risky behaviours, the hypothesis would be confirmed. This finding would have implications both for those that value strong laughter as welcomed and desirable and those that view it as problematic and dangerous. For those that value risky behaviour, the results would confirm the belief that laughter is indeed therapeutically desirable and therefore worthy of promoting. On the other hand, for those that tend to define risky behaviour as inherently problematic or pathological by its very nature, the results would reinforce the belief that strong laughter is undesirable and should not be promoted in therapy. The confirmation of the "risky behaviour" hypothesis therefore has supportive implications for both the proponents and the opponents of patient strong laughter.

The findings will also allow for an examination of the extent that strong laughter events may be regarded as instances of a pathological indicator or state. This would be the case if the predominance of

laughter statements were to fall in category problematic-pathological state. Here laughter would clearly be seen as undesirable. While these results would confirm the views of the opponents of strong laughter, they would be counter to the views of those clinical theorists who view laughter as a positive, welcomed and desirable event. For this latter group of theorists, the evidence would suggest that strong laughter might not be so worthy of facilitation.

If the risky behaviour hypothesis is confirmed, for therapeutic approaches which value such events, the findings will tend to shed some light on how strong laughter events may be facilitated, sustained, and developed. By taking a careful, fine-grained look at the content of the risky behaviours associated with laughter, certain classes of risky behaviours may emerge with greater frequency in the facilitation of laughter. For example, laughter may be best facilitated when the patient engages in a risky behaviour toward a significant other. Once laughter is facilitated, other classes of risky behaviours may be more useful in sustaining and developing the event. A fine-grained analysis of single sessions with multiple laughters may provide such evidence.

On the other hand, if the risky behaviour hypothesis is confirmed, for those therapeutic approaches that see laughter as problematic, the findings will tend to shed some light on the nature of the problematic or pathological state. Again, by taking a careful, fine-grained look at the content of risky behaviours, information related to the problem or

pathology may emerge. For example, it may be that the patient is directing aggressive behaviour specifically toward the therapist while laughing. The same fine-grained analysis may be made with respect to the nature of patient behaviours should the risky behaviour hypothesis be disconfirmed and the majority of laughters fall directly into the problematic-pathological state category. Laughter may be seen, for example, to indicate a defensive avoidance of certain topic areas. In both cases, the clinician can use laughter to help identify specific problem-related areas.

Hypothesis 2

The findings related to this hypothesis will shed light on the immediate consequences and cumulative effects of laughter across single sessions. The findings will suggest what the immediate consequences of laughter are, and these consequences will in turn have implications related to whether a therapist chooses to promote or not promote laughter. If the immediate consequences are risky behaviours, then those theorists and clinicians who value such behaviours will perhaps be inclined to promote laughter as a vehicle for engendering risky behaviours. For those that see risky behaviour as dangerous, these results would provide further evidence to regard laughter as a dangerous therapeutic event. If the immediate consequences are more directly

problematic or pathological, then both groups of theorists and clinicians would tend to discourage the promotion of laughter.

For those that value risky behaviour, a fine-grained analysis of the laughter and the consequent immediate risky behaviours may give some clues as to which type of laughter may result in the greatest sustaining of risky behaviour as a consequence. For example, laughter that comes about through the patient engaging in risky behaviour directed toward a significant other may be found to result in greater sustaining of consequent risky behaviours than laughter that comes about through risky behaviour directed towards the therapist. The implication is that the therapist would be inclined to promote the patient's engaging in risky behaviour directed toward a significant other rather than, for example, toward the therapist.

The findings will also suggest whether these immediate consequences tend to cumulate across the session, that is, whether instances of risky behaviours or problems and pathology increase from the beginning to the end of a session with multiple instances of laughter. If the consequences are risky behaviour and they do cumulate, then the implication will depend on whether one values risky behaviour. If one does, then one will continue to promote multiple instances of strong laughter. Again, by making a fine-grained analysis of the laughter and immediate consequences a pattern may emerge as to the nature of this cumulative effect. For example, the greatest accumulation of risky behaviour may occur when the

target of risky behaviour is a significant other, as opposed to the therapist or the patient himself or herself. The therapist may then try and promote risky behaviour directed toward a significant other. Strong laughter is to be avoided however if risky behaviour is not valued or if strong laughter and its cumulative immediate consequences are pathological. This position would be substantiated to the extent that strong laughter does promote and sustain material that is non-therapeutic in nature.

Chapter II

METHODOLOGY

The purpose of the chapter is to present a methdology for studying the hypotheses forwarded in the previous chapter. First, the research strategy to be used in the study will be outlined. This will be followed by a consideration of the data, the category system, the judges, and the procedure used in the investigation of the hypotheses.

Research Strategy

The research strategy provides the vehicle to answer the research question. The purpose of this section is to identify an appropriate vehicle to answer the research question under investigation. It is from this strategy that the methodology is derived.

The research question asks what patients are doing, how they are being and behaving while they are engaged in strong laughter. To answer this question, the research strategy should meet several desiderata. The strategy should: (a) focus on in-therapy events, (b) employ real therapists and patients engaged in psychotherapy, (c) focus on the actual behaviour in the session, (d) employ a sufficient number of therapy sessions due to the low frequency of patient strong laughter.

It appears that the research question may best be answered using a strategy which allows for an intensive, in-depth analysis of the laughter

event as it occurs in the therapy session. Such a strategy allows for a discovery of what occurs during moments in therapy which have been identified as significant. Significant in-therapy events may be studied using analogue or naturalistic procedures.

Analogue procedures attempt to reproduce the events of therapy. Retzinger (1985) conducted nonpsychotherapeutic interviews with volunteer college students and had them discuss real life situations which made them angry. The encouragement to express the anger led to laughter in some of the students. One way to examine the research question would be to have individuals role play patients or patients and therapists and examine how the "patients" are being and behaving during moments of strong laughter. However, because the focus of the question is on actual patients in therapy, a strategy which does not use real patients engaged in psychotherapy is deemed inappropriate to answer the research question.

Naturalistic procedures involve studying events occurring in actual psychotherapy sessions. One category of procedures involves the manipulation of therapy events. Prerost (1984) specifically used methods during therapy sessions to introduce humour and involve the patient with humour and laughter. In the present study, therapists could be trained to use the methods forwarded by Gervaize, Mahrer, and Markow (1985) found to precede patient strong laughter. Subsequently, the patients' verbal behaviours accompanying the laughter could be examined. Not only would such a procedure fail to provide data on the specific questions, there are practical considerations pointing away from the use of such a strategy.

Among these are finding a sufficient number of experienced therapists willing to learn and directly use these methods as part of their practice of psychotherapy to provide sufficient data for this study.

A second category for naturalistic procedures does not involve manipulation. Kiesler (1973) divides this category into indirect and direct procedures. Indirect procedures involve collecting data which occurs outside of the therapy session. For example, the patient or the therapist may be asked to comment on a particular event which occurred during the session. In the present study, the patient could be asked to describe what was occurring at the moment he/she was laughing. This procedure is limited to the degree that the patient is available to comment on what occurred during the session. Furthermore, this procedure focusses on the patient's recollection or speculation of what occurred rather than the actual behaviours occuring in the session. It therefore fails to meet the objective of specifically focusing on behaviour occurring in the session.

The most appropriate strategy to answer the specific research question appears to employ the use of a direct naturalistic procedure. This procedure involves the systematic analysis of significant therapist and/or patient behaviour as it occurs in actual therapy sessions. Adoption of this strategy allows for the discovery of what patients are actually doing, how they are actually being and behaving during moments of strong laughter which occur during their therapy sessions.

This strategy seems to offer the most suitable way to answer the specific question under consideration given the four previously mentioned desiderata. However, both analogue methods and methods involving experimental manipulation may also provide valuable complimentary approaches to the general question of

what patients are doing while they are engaged in strong laughter. Other researches may use these methods to provide additional convergent information related to patient strong laughter.

Data Pool

The purpose of this section is to describe the data pool from which the actual data for the study are to be drawn.

Strong laughter events will be drawn from sessions included in the Psychotherapy Tape Library of the School of Psychology, University of Ottawa. The tape library was developed by the School of Psychology for the expressed purpose of providing data for psychotherapy research projects. Currently, this audiotape library contains 320 hours of individual adult psychotherapy sessions.

There are 36 therapists who have contributed to the Library. All are experienced psychotherapists who are engaged in part-time or full-time private practice. The therapists represent various therapeutic approaches, including psychodynamic, client-centered, Gestalt, Jungian, humanistic, cognitive, behavioural, and integrative-eclectic therapies. Some of the therapists represent exemplars of given approaches. Among these may be counted Robert Pierce, Ph.D., feeling-expressive therapy; Harold Greenwald, Ph.D., direct decision therapy; Neil Friedman, Ph.D., experiential-focussing therapy, Albert Ellis, Ph.D., rational-emotive therapy. According to all therapists in the pool, the sessions illustrate their typical on-going work with actual patients, and do not include demonstration or educational sessions conducted in front of audiences.

There are approximately 58 patients included in the tape library. All patients are non-hospitalized adults and are private patients of the above mentioned therapists. There is approximately an equal distribution

of male and female patients. No diagnostic information nor specified problem designation was provided by the therapists with respect to their patients. However, listening to the sessions reveals a broad range of problem areas (e.g., marital discord, sexual problems, interpersonal difficulties, situational stress, speech and communication problems, focused symptoms, intrapersonal problems) typical of private practitioners' patient load. It appears that few, if any, of the patients may be diagnosed as psychotic.

While the majority of the sessions are from the middle phases of therapy, a few are either initial interviews or final sessions. A complete description of the therapists and patients making up the actual data base will be given in the following chapter.

Data Form: Audiotape, Transcript

Psychotherapy process research typically presents data in the form of audiovisual recordings, audiotapes, and/or verbatim transcripts (Bergin & Garfield, 1971; Garfield & Bergin, 1978; Kiesler, 1966, 1973). The present study will use audiotapes presented along with their verbatim transcripts as well as audiotapes presented alone. The form of data presentation is dependent upon the specific data being categorized and will be discussed in the following section. Audiotapes are the preferred method of data presentation in this study. According to Kiesler (1973), the audio dimension allows judges to use extra- and paralinguistic variables such as voice pitch, tempo, and volume change. Because strong

laughter is an affect-laden behaviour, these variables provide relevant information of use in the judges' ratings.

Data Sample: Segments and Complete Sessions

Both segments of sessions and complete sessions will be used. The segment is to provide sufficient information for an adequate testing of the hypothesis. This hypothesis focussed on patients' verbal behaviours while they are laughing. The segment could perhaps be the single patient statement that occurs concomitant with the patient's laughter. Such a narrow segment however restricts the amount of contextual information necessary for accurate and precise categorizations. The decision is to broaden the segment in such a way as to provide adequate information.

Segments may be chosen on the basis of length of time or number of patient-therapist interchanges. While length of time samples are the most common type of psychotherapy segment (Kiesler, 1973), they possess a major drawback. Because people speak at different rates, a standardized time segment runs the risk of excluding valuable information. While increasing the time of the segment may pick up this information, it may also serve to provide needless information that may confound the ratings.

The segments will be chosen on the basis of patient-therapist interchanges. The segment will comprise the patient laughter statement and its three antecedent patient-therapist interactions. After listening to a number of instances of patient strong laughter, this segmentation appears to convey optimal information necessary for contextual understanding.

Selection of Strong Laughter Epochs

Strong laughter events are those which are (a) singular and discrete, low-frequency, rather than a high frequency stylistic characteristic of the patient's consistent mode of behaviour, and (b) characterized by high energy, strength, intensity, saturation and amplitude rather than low energy and mild volume or expressiveness. The selection of these events will follow the procedure used in the strong laughter study of Gervaize, Mahrer and Markow (1985).

First, excluded from study will be any session which contains more than twelve instances of any kind of laughter, in order to partial out patient laughter as a stylistic characteristic. Also excluded from study are strong laughter events which occur within the first three patient statements, for much the same reason, and as non-contributing to the purposes of this research.

Second, strong laughter events will be selected according to a refinement of a method used by Nichols (1974) and Nichols and Bieranbaum (1978). A doctoral student in clinical psychology will go through the entire pool of 320 hours of psychotherapy and select instances of strong laughter concomitant with a minimum of four words (see Appendix A). In addition, the doctoral student will select a corresponding number of instances of mild or moderate laughter. Following this, two other doctoral students will be given an audiotape containing descriptions and examples of strong and mild or moderate laughter and will subsequently rate the

total pool of laughter instances as either strong or mild/moderate. This exercise will serve to confirm the original group of strong laughter events by agreement among all three doctoral students.

The above procedure resulted in sixty exerpts of strong laughter deemed suitable for the purposes of this research. These sixty exerpts include all the strong laughter epochs available in the overall data pool as opposed to a random sample selected from that pool.

Selection of Complete Therapy Sessions

Complete therapy sessions will be selected from the total pool of 320 sessions in the psychotherapy tape library. The presence of the strong laughter will have been established by the three doctoral students as described above, and will exclude instances of laughter that come from sessions that contain more than twelve instances of any kind of laughter or laughter which occurs in the first three patient statements. In order to test the hypotheses, all sessions will be selected which (a) contain a minimum of three such instances of strong laughter, and (b) in which the initial instance occurs after a minimum of fifteen antecedent patient statements. Of the total pool, six sessions met the above mentioned criteria to be included in the analysis of complete therapy sessions.

Unit of Study

Kiesler (1973) summarizes the units of study suitable for psychotherapy process research. These include single words, phrases, statements, topic areas, and the interaction exchange. The choice of unit depends upon the research question. Since this research investigates patient verbal behaviours concomitant with strong laughter, the unit of study will be the complete patient statement. This unit is defined as all the words spoken by the patient, preceded and followed by the words spoken by the therapist. The strong laughter epoch will be defined as a patient statement including strong laughter as previously identified by the three doctoral students.

Category System of Concomitant Patient Behaviours

In order to assess the hypotheses, the patient verbal behaviours concomitant to strong laughter will be placed into the following categories derived from the clinical-theoretical literature.

1. Risky behaviour. The patient is generally engaging in behaviours that are risky. These behaviours are described as wicked, tabooed, nasty, devilish, outrageous, impulsive, aggressive, not typically expressed, excitingly wicked, excitingly threatening. The patient may engage in different kinds of behaviours that fall under or comprise this category.

The risky behaviours may be expressed or carried out by the patient. The target of the behaviour could be (a) the therapist, who is at the

receiving end of the risky behaviour. The target of the behaviour could also be (b) some figure other than the therapist who is not physically present in the therapy room, but is present in fantasy or imagination. Or, the target of the behaviour could be (c) the patient, who is talking about or revealing something risky about himself or herself.

The risky behaviour may be described or reported by the patient. That is, instead of actually expressing or carrying out the behaviour, the patient tells about a risky behaviour that was or may be carried out by the patient or another.

Or, the risky behaviour may be reacted to by the patient. That is, the risky behaviour was described or expressed just earlier by the therapist or the patient, and the patient is now reacting to that described or expressed behaviour.

All of these kinds of risky behaviours are included in the category Risky behaviour. The following are some brief examples of laughter epochs illustrative of Category 1: Risky behaviour.

1) T: You sound angry with me.

P: If I have to be angry with someone it might as well be you. You have to do something to earn your money (Strong Laughter).

2) T: You're a good person. Everybody likes you.

P: Yah. I'm kind and considerate. I don't want to be kind and considerate. I want to be mean. I want somebody to hate me (Strong Laughter).

3) T: Tell her. Let yourself tell her how you feel.

P: I need you. I need you. I really need to be with you now (Strong Laughter).

4) P: I think I hit him with a flyswatter.

T: You did what?

P: Yeah, I remember. I hit him across the face with a flyswatter (Strong Laughter).

5) T: Come over and give me a hug.

P: I'd like to, I'd really like to do that again (Strong Laughter).

2. Problematic-pathological state. The patient is expressing, manifesting, describing, or referring to a problematic-pathological state. This state is characterized by problems and difficulties, internal or external threat, psychic hurt and pain, avoidance, inability to cope, heightened anxiety and tension, states of disturbance, pathology, chaos, falling apart. This state may be shown directly or just alluded to or indirectly shown. This category excludes any statement that might otherwise fit into Category 1. The following are some brief examples of laughter epochs illustrative of Category 2: Problematic-pathological state.

1) T: Do you think you are free from emotional problems now?

P: (Strong Laughter). No ... I'm freer but not free.

2) T: It sounds like things are pretty bad.

P: (Strong Laughter). Yah, bad would be an understatement.

3) T: How are things going at home?

P: I'm trying to keep Mary looking for work and John still wants to quit school. I'm really worried. (pause) It'll be summer soon (Strong Laughter). Manic people always get worse in the summer.

4) T: How is your relationship going?

P: I'm doing my best to keep it going. Time will tell. (Strong Laughter). Crazy people can never maintain a relationship.

3. Other. Concomitant behaviours which do not fall in the above two categories are to be placed into an "other" category. A few brief examples follow.

1) T: So you got yourself a job.

P: Yeah. (Strong Laughter). It feels good to be working again.

2) T: You look really happy.

P: (Strong Laughter). I am, I really am.

3) T: I think your plan to do some exercise is a good one. Whenever I get the urge to exercise, I lie down until the feeling passes.

P: (Strong Laughter). You do? That's funny.

While the category system may appear somewhat limited (i.e., two predicted and an "Other" category), the literature does not offer further testable speculations related to the nature of patient behaviours during

strong laughter epochs. However, should the preponderance of concomitant patient verbal behaviours fall into any one or two categories, the researcher is prepared to conduct a more fine-grained content analysis into the verbal behaviours which make up the individual categories with the goal of offering more detailed specificity related to patient behaviours during strong laughter. This fine-grained examination is consistent with the "discovery oriented approach" of psychotherapy research advocated by Greenberg (1984). Specifically, should the preponderance of data fall into the "Risky behaviour" category, the researcher will subdivide the data according to a system suggested in the study by Gervaize, Mahrer and Markow (1985), which divides risky behaviour into a number of subcategories.

Accordingly, two category systems will be used. The first is a three-fold system comprised of:

1) Risky behaviour
2) Problematic-pathological state
3) Other.

This system will be used to examine the main hypotheses.

The second is a five-fold system comprised of:

1) Expressed Risky behaviour
   - 1a) Toward Therapist
   - 1b) Toward Other
   - 1c) About Oneself
2) Described Risky behaviour

3) Reacted-to Risky behaviour

This system will be used to make a closer examination of the main findings. This five-fold system is but one way suggested by the literature to sub-categorize risky behaviour. It was selected in order to provide useable descriptions to therapists related to the content and/or the object of risky behaviour. No attempt was made to provide data to distinguish whether risky behaviour in and of itself is desirable or not. However, a more specific subcategorization of risky behaviour related to its desirability may in future be developed. For example, risky behaviours may more specifically be subcategorized into those that are safe behaviours or non safe behaviours.

Judges

The majority of psychotherapy process research has generally used two to four judges (e.g., Edwards, Boulet, Mahrer, Chagnon, & Mook, 1982; Hill, 1978; Hill, Themes, & Rardin, 1979; Stiles & Sultan, 1974; Strupp, 1957). The present investigation will use two 'teams' of judges. Eleven judges will comprise one team. Three of these eleven judges will also comprise the second team. All judges will be drawn from a psychotherapy research team with extensive experience in categorizing verbatim therapist and patient statements. The judges include three clinical psychologists, four doctoral students in clinical psychology, three masters students in clinical psychology, and one mental health professional.

Training of the judges. All judges will be trained in the application of the category system in the following manner. Each judge will be given a detailed training manual containing a description of the categories along with suitable examples (see Appendix B). After discussion of the manual, judges will be trained

in the application of the category system using transcripts of approximately 20 "practice" strong laughter epochs and 20 practice other patient statements. The 20 "practice" strong laughter epochs were loose adaptations of actual strong laughter epochs. The purpose of these practice epochs and statements were to familiarize the judges with the category system. Discrepancies between the judges and overall difficulties using the category system will be discussed. Training will be complete when an 80% agreement level is reached by the judges on the "practice" segments.

Procedure

Hypothesis 1: The Concomitants of Strong Laughter

The expectation is that the predominance of verbal behaviours concomitant with strong laughter should consist of risky behaviours and, in addition, some measure of strong laughter statements should be characterized by verbal behaviours indicative of a pathological state. These expectations will be examined according to the procedures outlined under the following two specific hypotheses.

1.1 When verbal behaviours concomitant with discrete, low-frequency strong laughter are judged as (1) indicative of risky behaviour, (2) indicative of a pathological state, or (3) falling in an 'all other' category, it is predicted that the proportion of verbal behaviours in (1) will be significantly greater than that falling in (2), and that the proportion falling in (2) will be significantly greater than the proportion falling in (3).

The procedure to test the hypothesis is as follows. After the initial training period, ratings will proceed on a weekly basis as part of a regularly scheduled research meeting. Each week, the team of eleven judges will be presented with

five exerpts of patient strong laughter. These exerpts will be in the form of a written verbatim transcript containing the strong laughter epoch and the three patient-therapist statements along with the corresponding audiotape of the exerpt. All exerpts will be presented in random order without cues identifying the laughter epoch as initial or subsequent in the session nor cues identifying the patient or therapist. The team will listen to the exerpts while following the transcript. The judges will be asked independently to categorize the patient strong laughter epochs over the course of the next week into one of the three categories: (1) Risky behaviour; (2) Problematic-pathological state; (3) Other. Should the preponderance of judged strong laughter epochs fall into the (1) Risky behaviour category, the judges will further categorize these laughter epochs into one of the following five subcategories: 1a) Expressed risky behaviour toward therapist; 1b) Expressed risky behaviour toward other; 1c) Expressed risky behaviour about oneself; 2) Described risky behaviour; 3) Reacted-to risky behaviour.

The following week during the team meeting the judges will once again listen to the exerpt and then report their ratings. They will then receive the next five laughter exerpts, repeating the procedure until all sixty exerpts have been categorized.

After all laughter exerpts have been categorized, those laughter epochs which did not attain the criterion of agreement (to be discussed later) will be given to the judges for re-rating. Re-ratings will be done following the procedure for initial ratings using both audiotapes and verbatim transcripts.

1.2 Within single sessions, the proportion of risky behaviour and/or behaviour indicative of problems or pathology in patient strong laughter statements will significantly exceed the proportion of risky behaviour and/or behaviour indicative of problems or pathology in patient non-laughter statements.

Three judges will be selected from the original team of eleven. These judges, who were previously trained in the application of the category system will be presented with material from six complete therapy sessions containing multiple instances of strong laughter. These sessions will have been chosen according to the criteria set forth earlier in this chapter. Three of the sessions will be presented in the form of a verbatim transcript with corresponding audiotape. The remaining three sessions will be presented only in the form of an audiotape, with sequential numbers corresponding to each therapist and patient statement being dubbed onto the audiotape. This second rather innovative way of presenting data has the distinct advantage of saving considerable time in the long and arduous process of data transcription. Comparison of the reliability of ratings using the two methods may result in an added methodological bonus to future researchers who may use this innovative procedure.

Regardless of the method of presentation, each of the six sessions will be divided into blocks of 20 therapist-patient couplets and randomized to give no cue as to where these blocks may have occurred within the session. After judging, the sessions will be placed into their original order to examine the hypothesis. The judges will independently categorize each patient statement (i.e., strong laughter statements and

all other statements) into one of the three categories: (1) Risky behaviour; (2) Problematic-pathological state; (3) Other, by reading the transcript and listening to the audiotape for three of the sessions and by listening to the audiotape of the remaining three sessions. The judges will further categorize all patient strong laughter and non-laughter statements that fell into the (1) Risky behaviour category, using the five-fold category system of 1a) Expressed risky behaviour toward therapist; 1b) Expressed risky behaviour toward other; 1c) Expressed risky behaviour about oneself; 2) Described risky behaviour; 3) Reacted-to risky behaviour.

After all patient laughter and non-laughter statements have been categorized, those statements which did not attain the criterion of agreement (to be discussed later) will be given to the judges for re-rating. These re-ratings will be done using the audiotapes and verbatim transcripts for three sessions and the audiotapes of the remaining three sessions.

The resulting data will also be used in the testing of hypothesis 2.1 and 2.2.

Hypothesis 2: The Consequences of Strong Laughter

The general expectation is that in single sessions, with respect to risky behaviour and behaviour that is indicative of a pathological state, strong laughter has an immediate consequential effect as well as a

cumulative effect. These expectations will be examined according to the procedures outlined under the following two specific hypotheses.

2.1 Within single sessions containing discrete low-frequency strong laughters, the proportion of risky behaviours and/or behaviours indicative of problems or pathology will be significantly greater immediately following strong laughter compared to the proportion of these behaviours occurring in the balance of the patient non-laughter statements in each session.

The following procedure will be used to test the hypothesis. Since the frame of reference is a single session, the six sessions previously selected and rated for Hypothesis 1.2 will form the data base. In order to examine immediate consequences of laughter versus non-laughter statements, immediate will be defined as comprising the five patient statements consequent to the target strong laughter. While somewhat arbitrary, this window provides a reasonable short-range focus to look for immediate consequences. The unit of study will be the five patient statements consequent to the strong laughter and will be defined as the strong laughter epoch. If any of the five consequent patient statements are found to contain an additional laughter statement, the epoch will begin with the additional laughter statement. The five patient statements following laughter must be non laughter statements. This is because of the expectation that strong laughter statements will contain a high proportion of risky behaviour. This would inflate the proportion of risky behaviour in epochs that contained multiple instances of strong laughter and would constitute a confounded finding. Also, the five statements of each strong

laughter epoch will not be included as part of the total number of all non laughter statements in each session in examining the hypothesis. They are excluded because it is expected that they will contain a greater proportion of risky or pathological behaviour compared to all other non laughter statements in the session. Inclusion may inflate the proportion of these behaviours in the other non laughter statements.

2.2 Within single sessions containing discrete, low-frequency strong laughters, the immediate consequences of each subsequent strong laughter statement will significantly exceed the immediate consequences of the antecedent strong laughter statement in the frequency rates of risky behaviours and behaviours indicative of problems or pathology.

The following procedure will be used to test the hypothesis. Again, since the frame of reference is a single session, the six sessions rated for Hypothesis 1.2 will form the data base. Immediate will be defined as the five patient statements immediately consequent to the strong laughter statement. These five patient statements will comprise the unit of study. For the six sessions, each succeeding strong laughter unit will be compared to the antecedent strong laughter unit with respect to the frequency of the judges' ratings of the immediate consequent statements as (1) Risky behaviour and/or (2) Problematic-pathological state.

Statistical Methods

The following section will consider the evaluation of inter-judge reliability, the criteria for categorization of patient statements, re-scoring procedures and statistics used in the analysis of the data.

Inter-judge reliability. Inter-judge reliability will be determined by the method of agreement (Kent & Foster, 1977). This is a procedure used to determine agreements between pairs of judges' ratings of categories in behavioural scales.

Criteria for categorization of patient statements. Two teams of judges will be used. The first team will consist of eleven judges and will categorize the sixty strong laughter exerpts. A patient statement will be considered as categorized when at least eight out of eleven (72.7%) judges place it within a single category.

The second team will consist of three judges. These judges will categorize all patient statements in the six complete therapy sessions. A patient statement will be considered categorized when at least two out of three (67%) judges place it within a single category.

Rescoring. Patient statements which fail to meet criterion after the first scoring attempt will be presented to the judges for a second scoring. Rescoring will be done after all data has initially been scored and will follow the initial procedure using transcripts and audiotapes or audiotapes alone. Those patient statements which fail to meet criterion upon rescoring will be considered 'unscorable' and will be deleted from further study. This method of data deletion is preferable to methods such

as group discussion (Hill, 1978) of statements which did not meet criterion in an attempt to determine the most appropriate category for the statement. The method of independent judging that will be used in this study has the advantage of stringency while minimizing group process effects in establishing category ratings.

Statistical analysis. The research focusses on various frequencies of the classification of patient statements into discrete categories. The data will be presented descriptively in terms of percentages. Chi-square values will be obtained to test for significant differences between the frequencies of statement categorizations.

Chapter III

RESULTS

The chapter is divided into three sections. The first section presents material related to the data collection and interrater agreement. The second and major section reports the findings of the testing of the hypotheses. The final section presents additional findings relative to some secondary questions.

Data Collection and Interrater Agreement

The material will be reported in two major sections. The first section presents material related to the establishment of the data base. Results of the procedures for identifying the strong laughter exerpts and complete therapy sessions will be given. The second section presents material related to the reliability of the judges' ratings of the strong laughter exerpts and the complete therapy sessions. Interrater agreement will be given for the rating of the strong laughter exerpts using the three-fold and five-fold category systems. This will be followed by the interrater agreement for the ratings of the complete therapy sessions using the three-fold and five-fold category systems. This section will end with the presentation of measures of interrater reliabilities.

Establishment of the Data Base

The data base was established through the identification of a number of exerpts of strong laughter and the identification of complete therapy sessions that met or exceeded the criterion minimum number of strong laughter events.

Identification of Strong Laughter. Three judges were used in the preliminary identification of the strong laughter exerpts. The first judge identified 64 instances of patient strong laughter and 30 instances of patient mild/moderate laughter from the total pool of 320 hours of psychotherapy. The guidelines required that each instance of laughter was to be accompanied by a minimum of four words in order to examine the hypotheses. The two groups of strong and mild/moderate laughter were randomly intermixed and presented to the remaining two judges. Each of the 94 laughter exerpts included the patient statement accompanying the patient's laughter along with the three therapist and patient statements preceding the laughter statement.

The two judges independently classified the 94 exerpts as falling in either the strong or the mild/moderate laughter category. They agreed with each other and with the initial judge in 60 out of 64 strong laughter exerpts (93.8%) and 30 out of 30 mild/moderate laughter exerpts (100%). Accordingly, agreement for the pool of laughters occurred in 90 out of 94 exerpts (95.7%). The four exerpts which failed to gain agreement were deleted from further study. Accordingly, this procedure resulted in the identification of 60 exerpts of strong laughter which served as part of the target data. The 30 instances of mild/moderate laughter were used to differentiate out and to identify the target strong laughters. They were not included in the target data since the research question

focussed exclusively on patient verbal behaviours concomitant with strong laughter. It would perhaps be interesting to compare and contrast the several levels or degrees or kinds of laughter, but this was not the focus of the investigation.

Distribution of strong laughter exerpts across therapists and therapeutic approaches. The 60 strong laughter exerpts which formed part of the data base were taken from 21 patients seen by seven therapists over 26 sessions (see Table 1). Therapist A and E may be classified as humanistic-psychodynamic in approach. Between them, they account for approximately 62% of the strong laughter exerpts (A = 55%; E = 7%). Therapists B and D, who follow the experiential approach, account for about 18% of the exerpts (B = 17%; D = 1%). The remaining therapists are basically humanistic-eclectic in orientation and account for 20% of the exerpts (C = 7%; F = 12%; G = 1%). All in all, with the exception of behavioural approaches, the seven therapists represent only a moderate range, with the preponderant component humanistic-experiential.

The distribution of therapists is also rather skewed in that therapists A and B contributed over half of the exerpts. One option was to even out the distribution by reducing the large number of exerpts contributed by these therapists. However, because patient strong laughter is a relatively low frequency behaviour, it was decided to use all 60 available exerpts.

The strong laughter exerpts were provided by four male and three female therapists. Nine patients are male and twelve are female (see Table 2). Table

Table 1

Distribution of Strong Laughter Exerpts Across Therapists, Patients and Sessions.

Therapist	Number of Laughter Exerpts	Number of Patients	Number of Sessions
A	33	11	16
B	10	3	3
C	4	2	2
D	1	1	1
E	4	2	2
F	7	1	1
G	1	1	1
7	60	21	26

Table 2

Distribution of Strong Laughter Exerpts Across Therapists, Patients, and Sessions by Sex of Therapists and Patients.

Therapist Male	Number of Patients		Number of Laughter Exerpts		Number of Sessions	
	Male	Female	Male	Female	Male	Female
A	4	7	16	17	8	8
B	–	3	–	10	–	3
C	2	–	4	–	2	–
D	–	1	–	1	–	1
4	6	11	20	28	10	12

Therapist Female	Number of Patients		Number of Laughter Exerpts		Number of Sessions	
	Male	Female	Male	Female	Male	Female
E	1	1	1	3	1	1
F	1	–	7	–	1	–
G	1	–	1	–	1	–
3	3	1	9	3	3	1
Total 7	9	12	29	31	13	13

3 categorizes the nature of the patients' major problems presented in the sessions. The problems appear typical of those that non-hospitalized adults would tend to bring for psychotherapeutic work.

Identification of complete therapy sessions. Complete therapy sessions were selected from the total pool of 320 hours of psychotherapy. Sessions were selected which contained (a) a minimum of three independent instances of patient strong laughter in which (b) the initial strong laughter occurred after a minimum of 15 antecedent patient statements. The instances of strong laughter had previously been established by the three judges as outlined above.

Six sessions met the criterion to be included in the analysis of complete therapy sessions. The number of strong laughters in the sessions ranged from 4 to 12, with the mean number of strong laughters as 8.3 (see Table 4). The six sessions were carried out by three male therapists. One therapist was exclusively experiential in orientation. The other two, while generally humanistic, integrated psychodynamic and some behavioural interventions into their therapeutic work. Each of the six sessions was with a different patient, three of whom were male and three female (see Table 5). The nature of the patients' problems as presented in the session may be seen in Table 6. All problems appear typical of non hospitalized adults seeking psychotherapeutic assistance.

This completes the presentation of material related to the establishment of the target data base. This data base consists of 60

Table 3

Distribution of Nature of Problem Area Presented in Sessions Containing 60 Exerpts of Strong Laughter.

Nature of Patient Problem Area Presented in Session	Number of Patients Male	Female	Total
Family problems	1	4	5
Marital discord	2	-	2
Separation/divorce	2	1	3
Sexual/relationship problems	2	1	3
Interpersonal difficulties	1	2	3
Inability to express anger	-	3	3
Poor self concept	1	1	2
Total	9	12	21

Table 4

Incidence of Patient Strong Laughter Across Six Sessions with Six Clients.

Session	Number of Patient Strong Laughter
1	4
2	10
3	12
4	12
5	6
6	6

Table 5

Distribution of Six Complete Therapy Sessions by Therapists and Sex of Patient.

Therapist	Patients	
	Male	Female
A	1	-
B	1	3
C	1	-
3	3	3

Table 6

Distribution of Nature of Problem Area Presented in Six Complete Sessions.

Nature of Patient Problem Area Presented in Session	Number of Patients Male	Female	Total
Family problems	-	2	2
Marital discord	1	-	1
Separation/divorce	1	-	1
Sexual/relationship problems	1	-	1
Inability to express anger	-	1	1
Total	3	3	6

exerpts of patient strong laughter and six complete therapy sessions containing multiple instances of patient strong laughter. The next section presents the agreement and reliability of the judges' ratings of this data base.

Reliability of Judges' Ratings

One team of eleven judges rated the 60 patient strong laughter statements. A second team of three judges rated the six complete therapy sessions. All data was initially rated using a three-fold category system of (1) Risky behaviour; (2) Problematic-pathological state; (3) Other. Data falling into the (1) Risky behaviour category was subsequently rated using a five-fold category system of specific kinds of risky behaviour.

The following sections will present reliability data related to these 60 strong laughter statements and the six sessions. First reliability data will be presented for the 60 strong laughter exerpts. This will include the number and percentage of exerpts reaching criterion. Data for the three-fold category system will be presented followed by data for the five-fold system.

Next, reliability data for the six complete therapy sessions will be presented. This will also include the number and percentage of statements attaining criterion. Data for the three-fold category system will precede data for the five-fold category system.

Lastly, reliability coefficients will be presented for the judges' ratings of the 60 strong laughter exerpts and six complete therapy sessions for the three- and five-fold category systems.

Strong laughter exerpts: Interrater agreement. Eleven judges were used to rate the strong laughter exerpts. Each judge independently rated the exerpts by listening to an audiotape and following a verbatim transcript of the exerpts. The criterion level of acceptance for each exerpt was agreement by at least eight out of the eleven judges (72.7% agreement). Those exerpts that failed to reach criterion on the initial rating were presented again to the judges for a second rating. Exerpts failing to reach criterion on second rating were deleted from further study.

Three-fold category system. The categories in this system are: (1) Risky behaviour; (2) Problematic-pathological state; (3) Other. The raters were presented the 60 patient strong laughter exerpts. Each exerpt was independently judged to fall into category (1), (2), or (3).

On the first rating, 57 out of 60 exerpts (95%) attained the criterion level of 72.7% agreement. Three exerpts (5%) did not. These three exerpts were presented again to the raters for re-judgement. One of the three exerpts met criterion while two did not. Accordingly, these two were dropped from further study.

As a result of the above rating procedure, 58 patient strong laughter exerpts met the criterion for inclusion in the study. This number represented 96.7% of the available data pool of strong laughter exerpts.

Five-fold category system. The Risky behaviour category of the three fold category system was divided into five subcategories as follows: (1a) Expressed risky behaviour toward therapist; (1b) Expressed risky behaviour toward other; (1c) Expressed risky behaviour about oneself; (2) Described risky behaviour; (3) Reacted-to risky behaviour.

Out of the 58 patient strong laughter exerpts attaining criterion in the three-fold category system, 55 were judged to fall in the (1) Risky behaviour category. These 55 strong laughter exerpts were presented to the raters. Each exerpt was independently judged to fall into category 1a, 1b, 1c, 2, or 3 of the five-fold category system. The purpose was to provide a closer look at the general class of risky behaviour.

On the first rating 33 out of 55 exerpts (60%) attained the criterion level of 72.7% agreement. Twenty-two exerpts (40%) did not. These 22 strong laughter exerpts were presented a second time to the raters. Seven of the 22 exerpts (31.8%) attained criterion on second rating while 15 (68.2%) did not. These 15 strong laughter exerpts were deleted from further study with regard to the five-fold category system.

After both ratings, 40 strong laughter exerpts met the criterion of agreement for inclusion in the study. This number represents 72.7% of the available data pool. This completes the section on interrater agreement of

the strong laughter exerpts for both the three-fold and five-fold category systems.

Complete therapy sessions: Interrater agreement. Three judges were used in the rating of the six complete therapy sessions. Each judge independently rated every patient statement in the sessions. Judges listened to an audiotape and followed a verbatim transcript in rating the first three sessions. The remaining three sessions were rated using audiotape alone. The criterion level of acceptance for each patient statement was agreement by at least two out of three judges.

The same procedure outlined in the ratings of the individual strong laughter exerpts was used for patient statements which failed to meet criterion on initial judgement. These patient statements were presented to the judges for a second rating. Patient statements which failed to reach criterion the second time were deleted from study.

Three-fold category system. The categories in this system are: (1) Risky behaviour; (2) Problematic-pathological state; (3) Other. The raters were presented with a total of 938 patient statements which represented all the patient statements in the six therapy sessions. Each statement was independently placed into category (1), (2), or (3).

On the first rating, 909 out of 938 patient statements (96.9%) attained or exceeded the criterion level of 66% agreement. Twenty-nine statements (3.1%) did not. These 29 statements were presented to the judges for a second rating. Upon re-rating, 26 out of the 29 statements

(92.6%) met criterion. Three patient statements (7.4%) did not and were deleted from further study.

The above rating procedure resulted in 935 patient statements meeting the criterion for inclusion in the study. This number represented 99.7% of the available data pool of patient statements.

Five-fold category system. The Risky behaviour category of the three-fold category system was divided into five subcategories as follows: (1a) Expressed risky behaviour toward therapist; (1b) Expressed risky behaviour toward other; (1c) Expressed risky behaviour about oneself; (2) Described risky behaviour; (3) Reacted-to risky behaviour.

Out of the 935 patient statements attaining criterion in the three-fold category system, 200 were judged to fall in the (1) Risky behaviour category. These 200 patient statements were presented to the raters. Each statement was independently judged to fall into category 1a, 1b, 1c, 2, and 3 of the five-fold category system. The purpose of these ratings was to provide a closer look at the category of risky behaviour.

On the first rating, 109 out of the 200 patient statements (54.5%) attained the 66% criterion level of agreement. Ninety-one statements (45.5%) did not. These 91 statements were presented to the judges for a second rating. Eighty of the 91 patient statements (88%) reached criterion while 11 (12%) did not. The eleven patients statements were deleted from further study with regard to the five-fold category system.

As a result of the rating procedure 189 patient statements from the six complete therapy sessions met the criterion for inclusion in the study. This represents 94.5% of the available pool of patient statements judged to contain risky behaviour provided by the initial rating with the three-fold category system.

Reliability of Ratings: Transcript and Audiotape vs. Audiotape

The six complete therapy sessions were rated using the three-fold and five-fold category system. The judges used an audiotape and verbatim transcript to rate the first three sessions. The remaining three sessions were rated by the same group of judges using an audiotape alone. How did the reliability of the ratings compare between the two-types of materials used by the judges?

One way to answer this question is to examine the percentage of patient statements that attained the criterion of interrater agreement necessary to be included in the study. Table 7 presents the percentage of patient statements attaining criterion using audiotapes and transcripts versus audiotapes alone for both the three-fold and five-fold category systems. No difference is seen in the percentage of statements attaining criterion in the three-fold system. The mean percentage of statements attaining criterion using audiotape and transcripts to do the ratings was 100.0%. The mean percentage attained using audiotapes alone was 99.7%.

Table 7

Percentage of Patient Statements Attaining Criterion Using Transcript and Audio Versus Audio for Three-fold and Five-fold Category Systems.

Three-fold System				
Session	Audio & Transcript		Session	Audio
1	100.0		4	100.0
2	100.0		5	98.6
3	100.0		6	100.0
Mean	100.0			99.7

Five-fold System				
Session	Audio & Transcript		Session	Audio
1	97.1		4	100.0
2	95.0		5	92.0
3	90.2		6	100.0
Mean	94.1			97.3

Similar findings occur in the five-fold category system. The mean percentage of statements attaining criterion using audiotapes and transcripts was 94.1 versus 97.3 for audiotapes alone.

It appears that the materials presented to the raters did not unduly effect the percentage of the patient statements reaching the criterion of interrater agreement for inclusion in the study. The raters appeared to have performed equally as well regardless of whether they were rating using an audiotape and corresponding verbatim transcript or using an audiotape alone.

This completes the section on interrater agreement for patient statements in the six complete therapy sessions for the three-fold and five-fold category systems.

Interrater Reliability

Overall rater reliability for the categories was assessed using the method of agreement (Kent & Foster, 1977). Reliabilities for the 60 strong laughter exerpts were .93 for the three-fold and .76 for the five-fold category systems. The corresponding reliabilities for the six complete therapy sessions were .74 and .72. These were deemed satisfactory.

Closer examination of the reliability coefficients indicates that the two teams of judges shared more agreement in their ratings using the three-fold category system compared to the five-fold category system. It appears that the judges were better at discriminating the general class of risky behaviours from problematic and other behaviours than they were in discriminating subcategories of risky behaviour. In addition, it appears that the team of eleven judges rating only the strong laughter exerpts shared more agreement than the team of three

judges who were required to rate all patient statements across the six therapy sessions. Implications related to improvements in the category system will be given in the Discussion chapter.

The Main Hypotheses

This section will present the results related to the two main hypotheses. Each hypothesis has two components (i.e., Hypothesis 1.1 and 1.2; Hypothesis 2.1 and 2.2).

Hypothesis 1: The Concomitants of Strong Laughter

In general, the question is whether there are identifiable kinds of patient verbal behaviours occurring concomitant with patient strong laughter. While the specific hypotheses will be presented in turn, the expectation is that the predominance of verbal behaviours should consist of behaviours judged to be risky. In addition, a smaller measure of verbal behaviours should consist of behaviours judged to be indicative of problems or pathology. The research findings for each hypothesis will be reported below. For each hypothesis the main findings and a closer examination of the main findings will be reported.

Hypothesis 1.1: Main Findings

It is hypothesized that the proportion of verbal behaviours judged falling into the Risky behaviour category will be significantly greater than the proportion falling into the Problematic-pathological state category. The proportion of verbal behaviours falling into the Problematic-pathological state category will be

significantly greater than the proportion falling into the Other category.

The hypothesis was tested using the three-fold category system of (1) Risky behaviour; (2) Problematic-pathological state; (3) Other. The data consisted of 58 exerpts of patient strong laughter.

As indicated in Table 8, of the 58 exerpts of patient strong laughter 55 (94.8%) of the concomitant verbal behaviours were judged as falling into the Risky behaviour category. Three exerpts (5.2%) fell into the Problematic-pathological state category. No verbal behaviours were judged to be in the Other category.

A comparison of the frequencies of patient statements judged as falling into the Risky behaviour category compared to the frequencies of patient statements judged as falling into the Problematic-pathological state category yields a chi-square of 46.6 ($df = 1$, $p < .001$). There appears to be a greater proportion (94.8%) of judged risky behaviours compared to be proportion (5.2%) of problematic-pathological behaviours. This finding appears to support the hypothesis.

A comparison of the frequencies of patient statements judged as falling into the Problematic-pathological state category with those falling into the Other category yields a chi-square (Yates correction) of 1.3 ($df = 1$, n.s.). There appears to be no significant difference in the proportion (5.2%) of judged problematic-pathological behaviours and the proportion of verbal behaviours (0.0%) judged to fall into the all 'other'

Table 8

Distribution of Verbal Behaviours Concomitant with Strong Laughter Using Three-fold Category System.

Category	N	%
1. Risky Behaviour	55	94.8%
2. Problematic-pathological state	3	5.2
3. Other	0	0.0
Total	58	100.0

category. While this finding does not appear to support the portion of the hypothesis predicting a significant difference between statements judged problematic-pathological and statements judged as 'other', it should be noted that the raw frequencies are very small.

A Closer Examination of the Main Findings for Hypothesis 1.1

The overwhelming majority (94.8%) of strong laughter exerpts were judged to contain verbal behaviours indicative of risky behaviour. Yet, this does not indicate much about the risky behaviour. Are there different kinds of risky behaviours? Do they occur with different frequencies? In order to answer these questions, a closer examination of the strong laughter exerpts judged to contain risky behaviour was undertaken.

The five-fold category system of (1a) Expressed risky behaviour toward therapist; (1b) Expressed risky behaviour toward other; (1c) Expressed risky behaviour about oneself; (2) Described risky behaviour; (3) Reacted-to risky behaviour was used. The data consisted of 40 strong laughter exerpts previously judged as falling into the (1) Risky behaviour category. These data were arrived at following the procedure previously described in the section on reliability of judges' ratings. They represent all available exerpts of patient strong laughter attaining criterion of interrater agreement. It must be noted that there is no hypothesis to be examined with respect to the risky behaviours under examination. Rather the purpose of the examination is to discover if and to what extent the

data may further be described by these subcategories of risky behaviour. The distribution is reported for descriptive purposes only.

The findings are presented in Table 9. Of the total of 40 strong laughter exerpts, 21 (52.5%) were judged to contain verbal behaviours involving expressed risky behaviour. Of these 21 expressed risky behaviours, 11 (52.4%) contained risky behaviour expressed directly toward the therapist as the target or object of the behaviour. Six (28.6%) of the 21 expressed risky behaviours consisted of risky behaviour being expressed directly toward some person other than the therapist. The remaining four (19.0%) of the 21 expressed risky behaviours involved the patient expressing something risky about himself/herself.

Described risky behaviour includes statements in which the patient is describing (reporting, relating, recounting) risky behaviour that was or may be carried out by the patient or by some other person. Of the total of 40 strong laughter exerpts, 6 (15%) fell into this category.

The final category of risky behaviour involves instances in which the patient is reacting to a risky behaviour that was expressed or described by the therapist or patient. Thirteen (32.5%) out of 40 strong laughter exerpts were judged as part of this category.

It appears that there are different kinds of risky behaviours concomitant with patient strong laughter. Moreover, these kinds of risky behaviour appear with differing frequencies. Over half (52.5%) of risky behaviours accompanying patient strong laughter are expressed, either

Table 9

Distribution of Verbal Behaviours Concomitant with Strong Laughter Using Five-fold Category System.

Categories of Risky Behaviours	N	%
Expressed Risky Behaviour	21	52.5
Toward Therapist	11	52.4
Toward Other	6	28.6
About Oneself	4	19.0
Described Risky Behaviour	6	15.0
Reacted-to Risky Behaviour	13	32.5
TOTAL	40	100.0

toward the therapist, toward some other, or about oneself. About one-third (32.5%) are reacted-to risky behaviours. Finally, only 15% of the risky behaviours accompanying patient strong laughter are described. This category includes descriptions or accounts or recollections of risky behaviour that the patient or others have done in the past.

Hypothesis 1.1: Summary of Findings

When exerpts of patient strong laughter were examined, the overwhelming majority of verbal behaviours concomitant to the laughter were judged as falling in a risky behaviour category (94.8%), a small proportion (5.2%) was judged to be indicative of problems or pathology, and none of the exerpts were judged as falling in an 'other' category. The portion of the hypothesis predicting a significantly greater proportion of verbal behaviours judged risky compared to the proportion of verbal behaviours judged indicative of problems or pathology appears strongly supported. Due to the small numbers involved, not much can be said conclusively about the difference in the proportion of verbal behaviours judged indicative of problems or pathology (5.2%) versus the proportion of verbal behaviours judged falling into an all 'other' category (0.0%). However, they do not differ significantly.

A closer examination of laughter exerpts judged to be risky indicated the following distribution of sub-categories of risky behaviour concomitant with strong laughter: 52.5% of risky behaviours are expressed,

either toward the therapist, toward some other, about oneself; 32.5% of risky behaviours are reacted to; 15% of risky behaviours are described.

Hypothesis 1.2

Hypothesis 1.2 provides an additional means of testing for identifiable kinds of patient verbal behaviours occurring concomitant with patient strong laughter. The verbal behaviours concomitant with strong laughter across individual sessions were compared with the verbal behaviours concomitant with all other (non laughter) statements in the sessions. As with hypothesis 1.1, the verbal behaviours concomitant with strong laughter are being examined. However, the hypothesis is altered slightly. Rather than look for differences in concomitant verbal behaviours between strong laughter statements themselves (hypothesis 1.1) differences in concomitant verbal behaviours between strong laughter and non-laughter statements were examined. This examination allows for a conclusion to be drawn regarding differences in verbal behaviours concomitant with strong laughter or non-laughter statements.

It is hypothesized that within single sessions the proportion of risky behaviour and/or behaviours indicative of problems or pathology in patient strong laughter statements will significantly exceed the proportion of risky behaviour and/or behaviour indicative of problems or pathology in patient non-laughter statements within each session.

Hypothesis 1.2: Main Findings

The hypothesis was tested using the three-fold category system of (1) Risky behaviour; (2) Problematic-pathological state; (3) Other. The data consisted of six complete therapy sessions, each containing multiple instances of strong laughter. Each patient strong laughter and non-laughter statement was categorized.

Upon rating, the data were found to contain no instances of strong laughter accompanied by verbal behaviours indicative of problems or pathology. Therefore, only the proportion of risky behaviour in strong laughter and non-laughter statements was examined.

Table 10 shows the distribution and proportion of risky behaviour in strong laughter and non-laughter statements for the combined six sessions. Out of a total of 51 strong laughter statements 45 (88.2%) were judged as containing risky behaviour. In contrast, out of a total of 884 non-laughter statements, only 154 (17.4%) were judged risky. Comparison of the frequency of risky behaviour concomitant with strong laughter statements with the frequency of risky behaviour concomitant with non-laughter statements yields a chi-square of 152.04 ($df = 1$, $p < .001$).

Overall, these results may be taken as support for the hypothesis. It appears that patient strong laughter is highly associated with concomitant verbal behaviours indicative of risky behaviour. This relationship appears to be unique or distinctive. That is, while most patient strong laughter statements were judged to contain risky behaviour

Table 10

Distribution and Proportion of Risky Behaviour in Strong Laughter and Non Laughter Statements in Combined Six Sessions with Six Patients.

	Strong Laughter Statements			Non Laughter Statements		
	N	Statements Judged Risky	% Statements Judged Risky	N	Statements Judged Risky	% Statements Judged Risky
Total Sample	51	45	88.2	884	154	17.4

(88.2%), only a small measure (17.4%) of patient non-laughter statements was found to contain such behaviour.

This relationship appears consistently in all six individual therapy sessions. Table 11 presents the relative proportions of risky behaviour in strong laughter and non laughter statements for each of the therapy sessions. In each session the proportion of verbal behaviours containing risky behaviour in strong laughter statements exceeds the proportion of verbal behaviours containing risky behaviour in non laughter statements. The relative proportions of risky behaviour in strong laughter statements and non-laughter statements respectively are 75.0% and 27.6% (session 1), 90.9% and 18.6% (session 2), 91.7% and 30.0% (session 3), 91.7% and 9.6% (session 4), 83.3% and 21.5% (session 5), 83.3% and 4.0% (session 6).

A Closer Examination of the Main Findings for Hypothesis 1.2

The above findings seem to indicate a unique relationship between patient strong laughter and the verbalization of risky behaviour. The closer examination of the results of hypothesis 1.1 identified different kinds of risky behaviours accompanying patient strong laughter. Similarly, are there different kinds of risky behaviour that uniquely characterize strong laughter statements compared to non laughter statements?

A closer examination of the findings was undertaken to answer this question. Again, no formal hypothesis is forwarded as the purpose of this

Table 11

Distribution and Proportion of Risky Behaviour in Strong Laughter and Non Laughter Statements in Six Sessions with Six Patients.

	Strong Laughter Statements			Non Laughter Statements		
Session	N	Statements Judged Risky	% Statements Judged Risky	N	Statements Judged Risky	% Statements Judged Risky
1	4	3	75.0	116	31	27.6
2	11	10	90.9	156	29	18.6
3	12	11	91.7	100	30	30.0
4	12	11	91.7	136	13	9.6
5	6	5	83.3	200	43	21.5
6	6	5	83.3	176	7	4.0

closer examination is to discover if there are certain subcategories of risky behaviour uniquely characterizing patient strong laughter.

The five-fold category system of (1a) Expressed risky behaviour toward therapist; (1b) Expressed risky behaviour toward other; (1c) Expressed risky behaviour about oneself; (2) Described risky behaviour; (3) Reacted-to risky behaviour was used. The data consisted of 45 patient strong laughter and 147 patient non-laughter statements previously judged as falling into the (1) Risky behaviour category of the three-fold category system.

Table 12 presents the distribution and proportion of risky behaviours in strong laughter and non-laughter statements. Significant differences were obtained between the frequencies of patient laughter and non-laughter statements in three categories of risky behaviour. These were described risky behaviour (24.5% vs. 12.9%, chi square = 3.41, dl = 1, $p < .05$), reacted-to risky behaviour (28.9% vs. 2.7%, chi square = 28.84, df = 1, $p < .001$) and expressed risky behaviour about oneself (13.3% vs. 47.0%, chi square = 16.3, df = 1, $p < .001$). The uniqueness of patient strong laughter and risky behaviour appears to specifically lie with the described and reacted-to subcategories of risky behaviour. There appears to be a greater proportion of risky behaviours that have been described by the patient or that has been reacted-to by the patient, and a significantly lower proportion of risky behaviours expressed about oneself.

Table 12

Distribution and Proportion of Verbal Behaviours Concomitant with Strong Laughter and Non Laughter Statements using Five-fold Category System.

Category	Patient Statements			
	Laughter N = 45		Non Laughter N = 147	
	N	%	N	%
Expressed Risky Behaviour				
Toward Therapist	6	13.3	24	16.3
Toward Other	9	20.0	31	21.1
About Oneself	6	13.3*	69	47.0*
Described Risky Behaviour	11	24.5**	19	12.9**
Reacted-to Risky Behaviour	13	28.9*	4	2.7*
	45	100.0	147	100.0

* $p < .001$
** $p < .05$

No significant difference was found in the frequencies of risky behaviours which were expressed toward the therapist (13.3% vs. 16.3%, chi square = 0.25, df = 1, n.s.) or expressed toward another figure (20.0% vs. 21.1%, chi square = .02, df = 1, n.s.). It appears these categories of risky behaviour are equally as likely to occur whether or not the patient is laughing.

Hypothesis 1.2: Summary of Findings

Within complete therapy sessions, a significantly greater proportion of verbal behaviours judged to be risky occurred in patient strong laughter statements compared to the proportion which occurred in non laughter statements (88.2% vs. 17.4%). These overall results are consistently found in the examination of each of the six individual therapy sessions. The findings appear to support the hypothesis. They provide evidence for a unique or distinctive relationship between patient strong laughter and the verbalization of risky behaviour.

A closer examination of strong laughter and non laughter statements indicated that the uniqueness or distinctiveness of strong laughter and risky behaviour was specific to risky behaviour which is described and risky behaviour which is reacted to by the patient. The uniqueness of strong laughter and risky behaviour was not found in expressed risky behaviour toward the therapist or toward another figure. Finally, it appeared that patients were more likely to express risky behaviour about

themselves when they were not laughing compared to their likelihood of engaging in this type of risky behaviour while they were laughing.

This ends the presentation of results for Hypothesis 1.

Hypothesis 2: The Consequences of Strong Laughter

In general, the question is whether there will be an increase in risky behaviour and behaviour indicative of problems or pathology following strong laughter statements. It is predicted that risky behaviour and behaviour indicative of problems or pathology will increase consequent to strong laughter statements in single therapy sessions. Six complete therapy sessions containing multiple instances of strong laughter were examined.

Two hypotheses were tested. The first hypothesis (2.1) referred to the immediate or short-term consequences of strong laughter. The strategy was to examine the proportion of risky and problematic behaviour in the five patient statements following strong laughter statements. These proportions were compared with the proportion of risky and problematic behaviour which occurred in the remaining non laughter statements in each session.

The second hypothesis (2.2) examined the cumulative consequences of strong laughter. In each session, the proportion of risky and problematic behaviour occurring in the five patient statements following each sequential strong laughter statement was examined. These proportions were

compared to discover changes in the proportion of risky or problematic behaviour with each subsequent strong laughter statement throughout the course of the entire session.

Hypothesis 2.1: Main Findings

It is hypothesized that the proportion of risky behaviours and behaviours indicative of problems or pathology will be greater in the five patient statements following strong laughter compared to the proportion of these behaviours occurring in the balance of the patient non laughter statements in each therapy session.

The five patient statements following a strong laughter statement defined the strong laughter epoch and constituted the unit for examining the immediate consequences of strong laughter. If any of the five statements in the epoch contained an additional laughter statement, the initial strong laughter episode was excluded from analysis. The basis for this procedure is the earlier confirmation that strong laughter statements appear to contain a high proportion of risky behaviour. Therefore, an increase in the proportion of risky behaviour in epochs that contained multiple strong laughters may be a confounded finding.

It should be noted, parenthetically, that the five statements of each strong laughter epoch were not included as part of the total number of all non-laughter statements in each session in examining the hypothesis. If these statements did contain a greater proportion of risky

or pathological behaviour as hypothesized, inclusion would tend to inflate the proportion of these behaviours in the other non-laughter statements.

The ratings of the six complete therapy sessions using the three-fold category system of (1) Risky behaviour, (2) Problematic-pathological state, (3) Other, was used as data for the testing of the hypothesis. These data had previously been used in Hypothesis 1.2.

The six sessions contained a total of 28 strong laughter epochs and 745 non laughter statements. Table 13 presents the pooled mean proportion of risky behaviour and behaviour indicative of problems or pathology for the laughter epochs and non laughter.

The six sessions contained a total of 28 strong laughter epochs which represent 140 separate patient statements. Of these 140 patient statements, 17 (12.1%) were categorized as containing risky behaviour while 1 (0.7%) was categorized as indicative of problems or pathology. The remaining non-laughter statements in the six sessions totalled 745. Of these, 130 (17.4%) were categorized as risky while 24 (3.2%) were categorized as indicative of problems or pathology. Table 13 presents the pooled frequencies and proportions of risky behaviour and behaviour indicative of problems or pathology for the 140 statements of the strong laughter epochs and the 745 non laughter statements. No significant difference is obtained comparing the frequency of verbal behaviours judged to be risky in the five patient statements following strong laughter with

Table 13

Distribution and Proportion of Risky Behaviours and Problematic-Pathological Statements in Strong Laughter Epoch Statements and Non Laughter Statements for Six Sessions

Category	Laughter Epoch Statements		Non Laughter Statements	
	N	%	N	%
Risky Behaviour	17	12.1	130	17.4
Problematic-Pathological State	1	0.7	24	3.2
Other	122	87.2	591	79.4
Total	140	100.0	745	100.0

the frequency of verbal behaviours judged to be risky in the balance of the non laughter statements in the sessions (chi square = 2.46, df = 1, n.s.).

A similar finding emerges for verbal behaviours judged indicative of problems or pathology. No significant difference is obtained comparing the frequency of verbal behaviours judged as falling into this category between statements in the strong laughter epoch and all other non laughter statements in the balance of the session (Yates corrected, chi square = 1.98, df = 1, n.s.).

Both sets of results fail to support the hypothesis. It appears strong laughter may have no immediate effect on either risky or problematic-pathological behaviours, that is, these behaviours did not increase substantially in the five patient statements consequent to strong laughter compared to their occurrence across the balance of the patient statements.

When the six sessions are examined individually, some variability is seen between the sessions when examining the category of risky behaviour. The distribution and proportion of risky behaviour in the strong laughter epoch statements and non laughter statements for each session are provided in Table 14. The respective proportions are 30.0% vs. 26.0% (session 1), 0.0% vs. 20.6% (session 2), 33.3% vs. 24.7% (session 3), 6.7% vs. 12.0% (session 4), 15.0% vs. 21.1% (session 5), 0.0% vs. 4.5% (session 6). There appears to be a slight increase in the proportion of risky behaviour in

Table 14

Distribution and Proportion of Risky Behaviour in Strong Laughter Epoch Statements and Non Laughter Statements for Six Sessions.

	Strong Laughter Epoch	Risky Behaviour in Epoch Statements		Risky Behaviour in Non Laughter Statements	
Session	N	N	%	N	%
1	4	6	30.0	25	26.0
2	4	0	0.0	28	20.6
3	3	5	33.3	21	24.7
4	9	3	6.7	11	12.0
5	4	3	15.0	38	21.1
6	4	0	0.0	7	4.5

the strong laughter epochs over the proportion of risky behaviour in the remaining non laughter statements in sessions (1) and (3). However, this trend is reversed in the remaining four of the six sessions.

Table 15 presents the distribution and proportion of problematic-pathological behaviour in strong laughter epochs and all other non laughter statements for each session. Problematic-pathological behaviour was judged to occur in four out of the six sessions. The relative proportions found in strong laughter epochs and non laughter statements are 0.0% vs. 2.1% (session 1), 0.0% vs. 2.9% (session 2), 6.7% vs. 0.0% (session 3), 0.0% vs. 9.4% (session 5).

Of the four sessions, only session (3) shows a greater proportion of problematic-pathological behaviour in the strong laughter epoch. However, this finding is based on one statement rated as problematic or pathological and represents the only statement rated as such in the entire session. In sessions (1), (2), and (5) the larger proportion of behaviours judged to be indicative of problems or pathology did not occur in the statements of the strong laughter epoch and the proportions were so low it is clear that the hypothesis was not supported.

Hypothesis 2.1: Summary of the Findings

The findings do not support the hypothesis. The proportion of verbal behaviours judged to be risky (12.1%) or indicative of problems or pathology (0.7%) in the statements of the strong laughter epochs is not

Table 15

Distribution and Proportion of Problematic-Pathological Behaviour in Strong Laughter Epochs and Non Laughter Statements for Six Sessions.

	Strong Laughter Epoch	Problem-Pathological Behaviour in Epochs		Problem-Pathological Behaviour Non Laughter Statement	
Session	N	N	%	N	%
1	4	0	0.0	2	2.1
2	4	0	0.0	4	2.9
3	3	1	6.7	0	0.0
4	9	0	0.0	0	0.0
5	4	0	0.0	17	9.4
6	4	0	0.0	0	0.0

significantly greater than the proportion of verbal behaviours judged to be risky (17.4%) or indicative of problems or pathology (3.2%) in the remaining non laughter statements of the sessions. Examining the sessions individually, a greater proportion of risky behaviour was seen in the strong laughter epochs of two sessions. However, the remaining four sessions did not demonstrate a greater proportion in risky behaviour in the laughter epochs. A greater proportion of behaviour indicative of problems or pathology was seen in only one out of four sessions that were judged to contain any instances of problematic or pathological behaviour.

Hypothesis 2.2: Main Findings

The focus of Hypothesis 2.1 was on the immediate or short-range consequences of patient strong laughter. The effect strong laughter had on the five patient statements immediately consequent to the laughter was examined. Hypothesis 2.2 also tests the effects of strong laughter. The focus shifts to the cumulative consequences of patient strong laughter. The hypothesis tests whether the proportion of risky behaviour and behaviour indicative of problems or pathology immediately following an instance of strong laughter increases with each additional instance of strong laughter throughout the entire therapy session. A cumulative increase in the proportion of these behaviours occurring immediately after strong laughter statements is predicted to occur with each subsequent strong laughter episode across the entire session.

The ratings of the six complete therapy sessions using the three-fold category system of (1) Risky behaviour, (2) Problematic-pathological state, (3) Other was used as data for the testing of the hypothesis. These data had previously been used in the testing of Hypothesis 1.2 and 2.1. The unit of analysis was the strong laughter epoch, defined as the five patient statements following a strong laughter statement. One again if any of the five statements in the epoch contained an additional laughter statement, the initial strong laughter episode was excluded from the analysis. This was done to reduce the likelihood of artificially increasing the proportion of risky behaviours in the epoch because of the strong loading of risky behaviours in strong laughter statements.

Twenty eight strong laughter epochs, comprised of 140 patient statements were used. These were the same 28 epochs used in the testing of Hypothesis 2.1.

The hypothesis was tested by calculating the proportion of verbal behaviours judged to contain risky behaviour and behaviours indicative of problems or pathology for each strong laughter epoch in all six sessions. Then, changes in the proportion of risky and problematic or pathological behaviours from strong laughter epoch to strong laughter epoch within each session were examined. Results for risky behaviour and behaviour indicative of problems or pathology will be presented separately.

Table 16 presents the proportion of risky behaviour in each sequential strong laughter epoch for each of the six therapy sessions. In five out of six sessions the proportion of risky behaviour in each sequential strong laughter epoch either decreases in comparison to its antecedent epoch or remains the same.

From the Table, a decrease is seen in session (3) and session (5). The proportion of behaviours judged risky in the first epoch of session (3) is 100%. That is, all five statements comprising the epoch were judged indicative of risky behaviour. This proportion of risky behaviour drops to zero in the remaining two strong laughter epochs in the session. None of the statements comprising these epochs were judged indicative of risky behaviour. The proportion of risky behaviours in the first strong laughter epoch of session (5) was 60%. This proportion dropped to zero in the subsequent three epochs.

In session (1), the proportion of risky behaviours remained the same in the first three strong laughter epochs (40%). This proportion decreased to zero in the fourth and final epoch. No risky behaviours were found in the strong laughter epochs in sessions (2) and (6), resulting in no change in the proportions of risky behaviour across the four strong laughter epochs in each of their respective sessions.

In one of the six sessions, the proportion of risky behaviour in one strong laughter epoch did increase over its antecedent epochs. However, the proportion of risky behaviour decreased in subsequent epochs. From the

Table 16

Proportion of Risky Behaviour in Each Sequential Epoch Consequent to Strong Laughter in Six Sessions.

	Sequential Epoch of Strong Laughter								
Session	1	2	3	4	5	6	7	8	9
1	40	40	40	00					
2	00	00	00	00					
3	100	0	0						
4	0	0	0	0	0	0	40	20	0
5	60	0	0	0					
6	0	0	0	0					
Mean	33.3	6.7	6.7	0					

Table, 40% of the the statements in epoch seven of session (4) were judged to contain risky behaviour. No previous strong laughter epochs contained risky behaviour. Strong laughter epoch eight saw a decrease in the proportion of risky behaviour to 20%. This was followed by a decrease in proportion of risky behaviour to zero in epoch nine.

Taken as a whole, the results do not support the hypothesis. There appears to be no consistent cumulative increase in the proportion of risky behaviours consequent to strong laughter in sequential strong laughter epochs over the sessions. This conclusion is reinforced by examining the pooled mean proportion of risky behaviour in the first four epochs in the six therapy sessions. The pooled proportions are 33.3%, 6.7%, 6.7%, and 0.0%. Rather then a cumulative increase in proportion of risky behaviour there appears to be more of a cumulative decrease in such behaviours.

Table 17 presents the proportion of behaviours indicative of problems or pathology in each sequential strong laughter epoch for the six therapy sessions. From the Table, no verbal behaviours judged to be indicative of problems or pathology were found to occur in the strong laughter epochs in five out of six sessions (sessions 1, 2, 4, 5, 6).

The proportion of verbal behaviours judged indicative of problems or pathology increased in session three. Twenty percent of the statements in strong laughter epoch three were judged problematic or pathological. This was an increase over the antecedent epochs which did not contain any statements judged indicative of problems or pathology. This session in and

Table 17

Proportion of Behaviour Indicative of Problems-Pathology in Each Sequential Epoch Consequent to Strong Laughter in Six Sessions.

	Sequential Epoch of Strong Laughter								
Session	1	2	3	4	5	6	7	8	9
1	0	0	0	0					
2	0	0	0	0					
3	0	0	20						
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0					
6	0	0	0	0					
Mean	0.0	0.0	3.3	0.0					

of itself does not lend support to the hypothesis. The proportion of 20% problematic or pathological behaviour found in epoch three represents one out of five statements in the strong laughter epoch. Furthermore, it was the only patient statement to be judged indicative of problems or pathology in the entire therapy session. One statement judged indicative of problems or pathology out of 140 statements comprising the 28 strong laughter epochs cannot be used as support for the hypothesis.

The evidence provided by the six sessions does not support the hypothesis. In general, there appears to be no cumulative increase in the proportion of verbal behaviours judged to be indicative of problems or pathology consequent to strong laughter in each sequential strong laughter epoch over its antecedent strong laughter epoch.

Hypothesis 2.2: Summary of Findings

The findings do not support hypothesis 2.2. The proportion of verbal behaviours judged to be indicative of risky and problematic, or pathological behaviour immediately following strong laughter does not increase cumulatively over the session. That is, there does not appear to be a cumulative effect of strong laughter on the proportion of risky or problematic-pathological behaviour immediately consequent to strong laughter across therapy sessions.

This ends the presentation of the results of the main hypotheses, Hypothesis 1 and Hypothesis 2.

Additional Findings

This final section will present two additional findings related to non hypothesized secondary questions. The first finding is related to sex differences in the incidence of patient strong laughter. The second is related to sex differences in the overall expression of risky behaviour.

Sex Differences in Strong Laughter

Sex differences in the incidence of patient strong laughter were examined in the six complete therapy sessions. Each therapy session was with a different patient. Three patients were male and three were female. Table 18 gives the distribution of the incidents of strong laughter for the six patients. From the Table, no difference is seen in the mean number of patient strong laughters between males and females ($t = .31$, $p > .05$). Male patients engaged in strong laughter an average of nine times over three sessions while female patients engaged in strong laughter an average of eight times over three sessions.

Sex Differences in Risky Behaviour

Sex differences in the incidence of risky behaviour were also examined in the six therapy sessions. Table 19 gives the distribution of the proportion of the total verbal behaviours judged to be risky in each

Table 18

Distribution of Incidence of Patient Strong Laughter by Sex of Patient Across Six Sessions.

Number of Patient Strong Laughters Across Sessions			
Session	Male	Session	Females
1	4	4	12
2	11	5	6
3	12	6	6
Mean	9		8

$t = .31$
$df = 4$
$p > .05$

Table 19

Proportion of Risky Behaviours by Sex of Patient Across Six Therapy Sessions.

Proportion of Patient Risky Behaviour Across Sessions			
Session	Male	Session	Females
1	28.4	4	34.3
2	22.4	5	22.9
3	16.9	6	6.6
Mean	22.6		21.3

$t = .15$
$df = 4$
$p > .05$

session for the six patients. From the Table, no significant difference in the mean proportion of behaviours judged to be risky is seen between male and female patients ($t = .15$, $p > .05$). Male patients engaged in risky behaviours in 22.6% of the statements across the three sessions. Female patients engaged in risky behaviours in 21.3% of the statements across the three sessions.

Chapter IV

DISCUSSION AND CONCLUSIONS

The purpose of the chapter is to discuss the findings presented in the previous chapter in light of their overall meaning and implications. In addition, suggestions for further research will be made. The chapter will culminate with a series of conclusions from the findings.

The Concomitants of Patient Strong Laughter

One focal point of the research was the examination of patient statements which occurred concomitant with patient strong laughter. In general, the question was whether there are identifiable kinds of patient verbal behaviours occurring concomitant with patient strong laughter. This question was examined using a three-fold and a five-fold category system derived from the clinical, theoretical and research literatures. The three-fold system was comprised of the categories: 1) risky behavior; 2) problematic-pathological state; and, 3) other. The five-fold system was comprised of subcategories of the general "Risky behavior" category. The expectation was that the significant predominance of verbal behaviors should be judged to be risky, while a significantly smaller measure of verbal behaviors should be judged to be indicative of problems or

pathology. This expectation provides a basis for testing the risky behavior hypothesis suggested in the literature (Mahrer & Gervaize, 1984).

Strong Laughter and Risky Behaviour

The findings of two separate but complementary research strategies confirm the risky behaviour hypothesis. In the first strategy, a number of instances of patient strong laughter were categorized. The results indicated that an overwhelming significant proportion of instances of strong laughter, in patients for whom laughter is not a stylistic characteristic, included verbal behaviour that is risky. That is, strong laughter is accompanied by patient verbal behaviours which may be described as wicked, tabooed, nasty, devilish, outrageous, impulsive, aggressive, not typically expressed, excitingly wicked, excitingly threatening. These findings support the hypothesis that the predominance of verbal behaviours concomitant to patient strong laughter should be judged to be risky compared to the number of patient verbal behaviours judged to be indicative of problems or pathology or judged to fall into an all other category.

In the second strategy, all patient laughter and non laughter statements comprising complete therapy sessions were categorized. The results suggest that strong laughter and risky behaviour are not only highly associated but also significantly more so than non-laughter and risky behaviour. These findings support the hypothesis that a

significantly greater proportion of strong laughter statements will contain verbal behaviours judged to be risky compared to the proportion of non-laughter statements containing such judged risky behaviour statements.

Taken together, these findings provide empirical evidence with respect to what patients are doing, how they are being and behaving during singular, discrete moments of strong laughter. While they are laughing strongly, patients are likely engaging in verbal behaviours judged to be risky. Moreover, patients are much more likely to be engaging in these risky behaviours while they are laughing strongly compared to times in which they are not. The findings indicate a strong and somewhat unique relationship between patient strong laughter and patient verbal behaviours judged to be risky.

Strong Laughter and Risky Behaviour: Implications.

Confirmation of the risky behaviour hypothesis has implications for both the clinical theory of laughter and the use of laughter in clinical practice. These implications are dependent upon the view held toward patient strong laughter and risky behaviour. Some hold patient laughter to be a therapeutically desirable in-therapy event. Others see laughter as therapeutically undesirable. The implications the findings hold for both will be discussed in turn.

Strong laughter as a therapeutically desirable in-therapy event. The strong association between patient strong laughter and concomitant verbal

behaviours judged to be risky, supports the clinical-theoretical position of those who value strong laughter as a positive, meaningful, desirable in-therapy event. This valuing of strong laughter is held by most therapeutic approaches but is especially espoused by humanistic-existential-experiential theorists. Laughter may be valued as indicative of a desirable shift in the patient's self concept or self perspective (Berne, 1972; Farrelly & Brandsma, 1974; Grotjahn, 1966; Mindess, 1971, 1976; Perls, 1970; Poland, 1971; Rose, 1976; Schimel, 1978; Viney, 1983), as an expression of a valued or optimal state (Berne, 1970; Harman, 1981; Jackins, 1965; Jasnow, 1981; Kris, 1940; Levine, 1976; Mindess, 1971; Olsen, 1976; Perls, 1970; Viney, 1983), as indicative of a positive patient-therapist relationship (e.g., Mindess, 1971, 1976; Narboe, 1981), indicative of therapeutic change (Farrelly & Brandsma, 1974; Harman, 1981; Jackins, 1965; Mahrer, 1978, 1983; Nichols & Zax, 1977; Olsen, 1976; Perls, 1970; Pierce et al, 1983), or as a corrective experience (Lewis, 1971; Retzinger, 1985; Scheff, 1984).

According to Mahrer and Gervaize (1984) the common thread woven through these values of laughter is the occurrence of risky behaviour. Clinical theorists who value patient strong laughter would value it because it is accompanied by risky behaviour. The findings support the clinical theory of laughter which holds strong laughter to be a therapeutically desirable in-therapy event.

For practicing psychotherapists who value strong laughter because it is accompanied by risky behaviour, the strong association between patient strong laughter and the concomitant verbal expression of risky behaviour underscores the desirability of actively promoting patient strong laughter as an in-therapy event. Among this group are therapists involved in direct decision therapy, Gestalt therapy, provocative therapy, Adlerian therapy, interpersonal therapy, personal construct therapy, feeling expressive therapy, existential-humanistic therapy, emotional flooding therapy, experiential therapy, re-evaluation counselling, natural high therapy, cathartic therapy, and some schools of psychoanalytic therapy.

For practising therapists who generally value the expression of strong feeling-experiencing, strong laughter is recommended as an appropriate category of strong feeling to promote. The empirical evidence suggests that strong laughter is not accompanied by patient verbal behaviours which are directly indicative of problems or pathology. Furthermore, the empirical evidence points to a unique coupling or association between strong laughter and risky behaviour. For those therapists who value strong feeling-experiencing, the promotion or encouragement of risky behaviour is recommended. Guiding the patient toward risky behaviour may help to promote strong feelings i.e., laughter. However, it must be emphasized that there is no demonstrated causal link between risky behaviour and strong laughter.

Strong laughter as a therapeutically undesirable in-therapy event. The strong association between patient strong laughter and concomitant verbal behaviours judged to be risky also supports the clinical theoretical position of those who do not value strong laughter (Ansell et al, 1981; Bergler, 1956; Freud, 1960; Grotjahn, 1970; Harman, 1981; Koestler, 1964; Kubie, 1971; Levine, 1976, 1980; Noyes & Kolb, 1963; Paul, 1978; Plessner, 1970; Zuk, 1966). Strong laughter is not valued because it signals behaviour that is problematic and dangerous. For these theorists, the very nature of risky behaviour is dangerous. It is behaviour that is impulsive, aggressive, threatening, normally defended against. The findings provide evidence for the non valuing of patient strong laughter because of its association with dangerous, risky verbal behaviours.

Two implications for practising psychotherapists who do not value patient strong laughter emerge from the findings. Because strong laughter is highly associated with dangerous risky behaviour, it is not to be actively promoted in the therapy session. Strong laughter is not a welcomed, desired goal. Secondly, when patient laughter does occur it can be used diagnostically as an indication of specific problem areas. When the patient is laughing, it seems that something important, albeit problematic or dangerous, is occurring. Strong laughter can be used to identify these important problem areas. Psychotherapists utilizing these implications would tend to be predominantly psychoanalytic-psychodynamic in orientation.

To summarize, there appears to be a strong relationship between patient strong laughter and risky behaviour. When patients are laughing strongly, the overwhelming preponderance of their concomitant verbal behaviours is judged to be risky in nature. This finding supports two opposing theoretical positions. One views laughter as a welcomed, desirable in-therapy event while the other does not.

The fact that the evidence supports two positions does not diminish the importance or significance of the research. While proponents of both theoretical positions have made general speculations as to why laughter is desirable or not, no actual evidence to this date has been gathered establishing the nature of patients' verbal behaviour during moments of strong laughter. The expressed purpose of this research was to collect these data rather than to test the superiority of one position over the other.

By making a careful examination of patient statements accompanying strong laughter it was found that patients were apt to be engaged in risky behaviours. This finding provides empirical evidence for the nature of patients' behaviour during moments of strong laughter. As such, this finding is both conceptually and clinically meaningful. Those that value strong laughter because it is accompanied by risky behaviour likely will continue to uphold the desirability of patient laughter and its promotion in therapy sessions. Those that do not value strong laughter because it is held to be therapeutically dangerous will continue to see laughter as

undesirable in view of its association with dangerous risky behaviour. Patient strong laughter will not be promoted in therapy sessions but may be used to discover patient problem areas. The importance of the research lies in the discovery of what patients are doing during moments of strong laughter. Beyond this the significance of the results lies in the theoretical eye of the clinician.

Sub-Categories of Risky Behaviour

Because such a very large proportion of strong laughter statements contained verbal behaviours judged to be risky, they were examined more closely to discover if there were identifiable types of risky behaviours accompanying strong laughter. This was done using a five-fold category system, i.e., by dividing the Risky behaviour category into five subcategories.

Upon closer examination of laughter statements containing risky behaviour, it appears that the general class of risky behaviour is comprised of a number of subcategories. Some examples of these subcategories will be given to provide concrete illustrations. All examples have been taken from the original audiotaped sessions and altered where necessary to insure the confidentiality of patient, therapist, and other referred-to individuals.

Category 1. Expressed Risky Behaviour

1a. Expressed toward the therapist:

1) T_1: Look directly at me and say, "Don't take that away from me!"

P_1: (Strong laughter) No way. I can't say that.
(Strong laughter) No way!

2) T_1: Go ahead and hit the pillow.

P_1: No! That's dumb! I won't do that. (Strong laughter).

In both examples the patient is refusing to do what the therapist asks. The patient is defying the therapist's wishes. The risky behaviour is expressed directly toward the therapist who is the target of the behaviour.

1b. Expressed toward other:

1) P_1: (She is addressing a man to whom she is attracted). I've been lonely, real lonely, and I've been hurting a lot. And now I really want to be with you George. It's time! I really want to be with you George! (Strong laughter).

2) P_1: (She is addressing her older step-brother and is referring to a woman with whom he is living.) Why don't you tell her to leave? We'll be just fine. (Strong laughter) Just you and me, together! (Strong laughter)

In both examples the patient is expressing something risky directly to another person. In the first, she is telling the individual how much she wants to be with him. In the second, she is expressing her wish to have the woman leave so she can be with her step-brother.

1c. Expressed about oneself:

1) T_1: So you're just a kind, helpful person.

P_1: Kind, cheerful, loyal, helpful, reverent, devoted. Shit! (Strong laughter) I want to be me! The hell with other people! I'm tired of the way I am! (Strong laughter)

Here the patient is saying something risky about himself, revealing that he no longer wants to place others first.

Category 2. Described Risky Behaviour.

1) P_1: (Recounting a recent incident with his wife in the morning.) So she said I had bad breath. I just got out of bed! So I went right up to her face and went HAH! (Strong exhaling noise) (Strong laughter).

2) P_1: I was mad at him. So I ...

T_1: Oh God! Here it comes!

P_2: I hit him hard! (Strong laughter) I was crying and I hit him really hard! (Strong laughter). In the mouth.

In both examples the patient is describing an aggressive behaviour the patient had engaged in toward another. Rather than expressing the risky behaviour directly toward the other person as if the person were actually there, the patient is describing an incident which has already happened.

Category 3. Reacted-to Risky Behaviour.

1) T_1: Watch out! You damned well might blurt it out loud! 'Jesus Christ you're sucking me in!'

P_1: (Strong laughter) Right!! Oh yeah! Oh my God! I might!

2) T_1: So you tell your parents, right there at the table, 'I'm gay!'

P_1: (Strong laughter) That's it! They'd die! Hell, I'd die! (Strong laughter)

In both examples the therapist is saying something risky. The risky statement is something impulsive that the patient may say in a particular situation. The patient is reacting to this risky behaviour that is made explicit by the therapist.

Given that the overwhelming majority of strong laughter statements contained risky behaviour, these subcategories provide a closer analysis of what patients are doing during moments of strong laughter. From this, a

number of implications follow for both those who value and those who do not value patient strong laughter accompanied by risky behaviour.

Before these implications are drawn, it must be understood that the closer or fine-grained examination of instances of laughter accompanied by risky behaviour was not done to test any formal hypothesis. In fact, there is little in the clinical-theoretical literature which would allow for a prediction with respect to relationships between the five subcategories of risky behaviour. Rather, this closer examination was done in order to better describe what patients are actually doing while they are laughing strongly.

The content of strong laughter statements. The findings indicate that about one half of the patient laughter statements originally classified as risky is accompanied by verbal behaviour characterized by the expression of risky behaviour. This risky behaviour is expressed toward the therapist, toward another, or about oneself. About one third of the risky laughter statements involved reacted-to risky behaviour. The remaining statements originally classified as risky were judged to consist of described risky behaviour.

For clinical theorists and therapists who value strong laughter, these findings may be used to shed further light on what may be therapeutically welcomed about strong laughter accompanied with risky behaviour. Strong laughter is valued by some because it is an expression of strong feeling. However in addition to this, the findings suggest that

strong laughter is accompanied by different and specific types of risky behaviour. It is these types of risky behaviour that may be valued.

Therapists may attach therapeutic value to the patient's ability to actually express risky behaviours in a direct way. Value may be seen in the patient's actual concrete expression of risky behaviour directed specifically toward the therapist, toward another person, to express risky behaviour about oneself. Additionally, therapeutic value may reside in the patient's concrete description of behaviour which is risky or in a feelinged reaction to risky behaviour. The examination of strong laughter statements originally judged to contain verbal behaviours indicative of risky behaviour provides an in-depth, closer analysis of what may be valued by therapists cordial to risky behaviour.

The findings suggest that for therapists who value any of these kinds of risky behaviours as therapeutically meaningful and desirable, strong laughter is one way to bring these behaviours to the fore. Speculations as to why these risky behaviours may be valued will be discussed later.

As previously mentioned, not all clinical theorists and therapists value patient strong laughter. Laughter may be seen as therapeutically problematic or dangerous, and risky behaviours are thereby seen as the manifestation of problems or pathology. For therapists and theorists who do not value strong laughter these findings may provide a clearer picture of what is problematic or dangerous and therefore therapeutically

unwelcomed about strong laughter accompanied by risky behaviour. Depending upon the nature of the accompanying verbal behaviours, the therapeutically problematic or dangerous material may refer to risky behaviour that is directly and concretely expressed toward the therapist, toward some other, or about oneself. Additionally, the problematic or dangerous material may refer to risky behaviour that is described or risky behaviour that is reacted to. This closer examination of strong laughter statements judged risky offers a more detailed study of what is seen as problematic or dangerous by theorists and therapists who do not value strong laughter, and suggests specific categories of risky behaviours that are problematic or dangerous.

The practical implication for those that view laughter as unwelcomed and undesirable resides in the clinical meaning and use of the laughter. When the patient laughs, the accompanying risky behaviour will not only indicate problematic or dangerous material, but will provide meaningful clinical data with respect to the specific content and target of the material. For example, the risky behaviour accompanying laughter in one patient may characteristically involve the expression of aggressive impulses directed towards the father. The specific content and target of this material accompanying the strong laughter may be used to form a clinically meaningful picture of the patient or a clinical diagnosis.

Whether one views strong laughter as therapeutically welcomed and desirable or problematic and dangerous, the close examination of strong

laughter statements provides a more detailed picture of what may be valued or what may be problematic and dangerous about patient strong laughter. In general, it is risky behaviour that is directly expressed (toward the therapist, toward another, about oneself), risky behaviour that is described and risky behaviour that is reacted to.

Strong laughter and problematic pathological states. A very small proportion of strong laughter statements was accompanied by verbal behaviour judged to be indicative of problems or pathology. These statements signified or alluded to a pathological state, serious problems, emotional illness, inner chaos, an inability to cope, or some psychic threat. Statements judged in this manner were qualitatively different from statements judged to contain risky behaviour. While some theorists see risky behaviour as a manifestation of underlying problems their conclusions are based upon an interpretation of the behaviour. Statements judged as falling in the category of problematic-pathological states require little or no interpretation. These statements refer more or less directly to problems and difficulties. Two examples follow.

1) T_1: You were going to be depressed the rest of your life, die or something.

P_1: I wanted to die, and I didn't think I would. (Strong laughter).

In this example the patient's laughter may well be taken to be related to problems of dying, death wishes, suicidal tendencies.

P_1: My son's getting ready to leave and I'm trying to pick up where he left off, and he's just resisting, so I have concerns. (pause) It's going to be spring soon. (Strong laughter) And depressed people always get worse in the spring.

In this example the patient manifestly points toward depression and an inability to cope with her present life situation.

However, since such a low proportion of our sample of the verbal behaviours concomitant to episodes of strong laughter were judged indicative of problematic or pathological states, it appears that strong laughter may be taken as a virtually exclusive accompaniment of some kind of risky behaviour. Strong laughter does not appear to be an accompaniment of patient statements referring to some pathology, at least for those theorists that make a distinction between the categories of risky behaviour and behaviour that is indicative of problems or pathology.

The low proportion of verbal behaviours judged directly indicative of problems or pathology may be taken as supportive of those who view patient strong laughter as a therapeutically welcomed and desirable event. These theorists expect only a small measure of strong laughter episodes to be accompanied by verbal behaviours directly indicative of problems or pathology. Their further expectation, supported by this research, is that the large measure of strong laughter episodes be accompanied by risky behaviour.

Because our sample of strong laughter was not associated with problems or pathology, therapists who value strong laughter as a desirable in-therapy event may use these findings to justify the continued use and promotion of patient strong laughter.

On the other hand the low proportion of verbal behaviours judged directly indicative of problems or pathology accompanying strong laughter and the corresponding high proportion judged indicative of risky behaviour is also supportive of those who view patient strong laughter as therapeutically problematic or dangerous. These theorists do not draw a distinction between patient statements which are risky and patient statements which point more directly toward problems or pathology. Both types of statements imply something that is therapeutically undesirable. All instances of patient laughter were either accompanied by verbal behaviours which were risky or verbal behaviours directly indicative of problems or pathology. Since no patient statements were judged as falling in the 'Other' category, these theorists are likewise supported in their view of strong laughter as indicative of the presence of material which is therapeutically problematic or dangerous.

Therapists who view patient laughter as an undesirable in-therapy event have supportive evidence for the therapeutic inappropriateness of actually promoting strong laughter. The findings suggest that strong laughter is indeed associated with some kind of risky or problematic or dangerous material. If patient strong laughter does occur, the findings

can be used by these therapists to generate meaningful clinical inferences, about the more specific content of the therapeutically risky or problematic or dangerous material. Depending on the nature of the accompanying statements, this material may refer to any of the categories of risky behaviour or to statements which directly allude to problems or pathology.

Risky Behaviour in Patient Strong Laughter and Non-Laughter Statements

The findings indicate that the overwhelming preponderance of patient strong laughter episodes contain statements judged as indicative of risky behaviour. Moreover, different subcategories of risky behaviour were identified. It appears that when patients are laughing strongly, there is a very high probability that this laughter is accompanied by some sort of risky behaviour. These findings provide a provisional answer to the initiating question of this research - "What are patients doing when they are laughing strongly?"

Given that strong laughter is likely to be accompanied by risky verbal behaviour, a related question is the degree to which non-laughter statements in the session is likewise characterized by risky verbal behaviour. Is risky behaviour as likely to occur when the patient is not laughing? The answer to this question has implications for the clinical theory of laughter as well as implications for the therapist who values

laughter accompanied by risky behaviour or the therapist who values risky behaviour in and of itself.

When the proportional frequency of patient strong laughter statements judged to contain risky behaviour was compared to the proportional frequency of patient non-laughter statements containing risky behaviour, a significant difference was found. From the findings, it appears that the association between strong laughter statements and risky behaviour is much stronger than the association between non-laughter statements and risky behaviour. The virtual predominance of patient strong laughter statements was accompanied by risky behaviour while only a small measure of patient non-laughter statements contained such behaviour. Not only is strong laughter and risky behaviour highly associated, the relationship between the two appears to be distinctive. While risky behaviour may occur in the absence of strong laughter, it does so with low frequency. On the other hand, when risky behaviour accompanies strong laughter it does so with a very high frequency. In this sense, it appears that strong laughter is unique as compared with non-laughter statements, in the high loading of risky verbal behaviours.

The kinds of risky behaviours distinctively associated with strong laughter statements: A closer examination of the subcategories of risky behaviour indicates the specific kinds of risky behaviours that are distinctively associated with strong laughter statements compared to non-laughter statements. It appears that the distinctiveness of strong

laughter compared to non-laughter statements consists predominantly in containing two kinds of risky behaviour. In the first, the patient is describing or reporting a risky behaviour that was engaged in by the patient or another. Alternatively, the patient is reacting to a risky behaviour that was earlier expressed or described by the therapist or the patient.

What is not distinctive about strong laughter compared to non-laughter is the degree to which it is accompanied by risky behaviour that is directly expressed by the patient. The patient appears just as likely to express risky behaviour toward the therapist or toward another figure regardless of whether the patient is laughing or not. In addition, it appears the patient is more likely to express risky behaviour about him/herself when the patient is not laughing compared to the expression of this behaviour when he/she is.

Implications. For those approaches that positively value risky behaviour, patient strong laughter generally appears to be an efficient way of maximizing its occurrence. While other means of promoting this behaviour likely exist, strong laughter appears to provide a path to risky behaviour in general and a distinctive path to specific kinds of risky behaviours.

What seems to be distinctive about strong laughter is that it appears to occur in place of the patient directly expressing or carrying out a risky behaviour in the here and now immediacy of the therapy

session. During episodes of strong laughter the patient is instead describing or reacting to some risky behaviour. It appears that the patient is perhaps one step removed or one step away from actually expressing risky behaviour directly. From the clinical theory of laughter, one might speculate that the distinctiveness of patient strong laughter has to do with allowing for the safe expression of impulses or deeper aspects of the patient's personality. The safety of the expression may reside in the distance from actually engaging in the behaviour. For example, the patient is reacting to a risky behaviour the therapist has engaged in or the patient has previously engaged in. Or, the patient is describing a risky behaviour that someone else has done or the patient had done on an earlier occasion. In both instances, the patient is not actually engaging in the risky behaviour. To do so would perhaps involve more psychological risk.

Further support for viewing the distinctiveness of laughter as providing a safe expression of impulses or deeper aspects of personality can be derived by looking at risky behaviours which are actually expressed by the patient in the therapy session. To actually express these behaviours concretely may not be as psychologically safe, whether the patient is expressing these behaviours directly toward an imagined other figure or directly toward the therapist as the target of the behaviour. Perhaps the least psychologically safe target to express risky behaviour toward or about is the patient him/herself. Interestingly, this is the one

subcategory of risky behaviour more distinctively associated with patient non-laughter than patient strong laughter statements. This finding is consistent with a view of patient strong laughter providing safe expression of either impulses or deeper aspects of personality.

All in all, the findings suggest that from a clinical theory of strong laughter, the strong laughter may provide a cathartic release of impulses normally not expressed. When a patient is actually expressing a risky behaviour directly, strong laughter may or may not accompany this expression. Strong laughter is much more likely to occur when the actual expression of risky behaviour is held back from behaviouralization. When these impulses are not carried out in action, it is speculated the laughter allows for their cathartic release. It may be speculated that anxiety underlies strong laughter and risky behaviour and that when this anxiety cannot be dispelled through direct behaviour, it is discharged through strong laughter. From a clinical theory of strong laughter risky behaviour may therefore be seen as one determinant of strong laughter. When risky behaviour is not expressed or behaviouralized directly, strong laughter is likely to occur.

To summarize, patient strong laughter is highly associated with the occurrence of risky behaviour. From the clinical theory of laughter, it is speculated that the distinctiveness of strong laughter may have to do with allowing for the psychologically safe expression of impulses or deeper aspects of the patient's personality. This view is in accord with Prerost

(1984) who believes laughter allows the patient to safely release hostile impulses.

The implications for psychotherapeutic practice suggest that for those therapists who positively value risky behaviour, patient strong laughter in general appears to be an efficient way of maximizing risky behaviour. For those therapists who especially value the direct, concrete expression of risky behaviour, the strong laughter may be taken as an indication that the patient is moving in the direction of open, direct, here and now expression of risky behaviour toward the therapist, toward some other figure and about oneself. It may be speculated this is because the patient is in the neighbourhood of expression of risky behaviour. The patient is describing it, relating it, admitting it, playing with it, cordial to it. The next step would be to enable the patient to actually express the risky behaviour. Appropriate therapeutic methods may be isolated then used to bring about the direct, concrete expression of risky behaviours in cordial therapies.

The Consequences of Patient Strong Laughter

The major finding of the present research is that the heavy preponderance of patient strong laughter statements contains risky behaviour. Furthermore, compared to non-laughter statements, strong laughter is unique or distinctive in the high loading of risky verbal

behaviours. The second focus of the research was on the possible effect strong laughter might have on the patient's tendency to engage in further risky behaviours throughout the therapy session. Two questions were examined. Is there an increase in patient statements judged to contain risky behaviours and/or behaviours indicative of problems or pathology immediately following episodes of patient strong laughter? And, is there an increase in the proportion of patient statements judged to contain risky behaviours and/or behaviours indicative of problems or pathology immediately following episodes of patient strong laughter with each successive episode of strong laughter across entire therapy sessions? The first question examines immediate short term consequences of patient strong laughter. The second examines cumulative effects or long term consequences of strong laughter.

The Immediate Consequences of Strong Laughter

The findings do not support the prediction of an increase in verbal behaviours judged to be risky or judged to be indicative of problems or pathology immediately following strong laughter episodes. There is no evidence to support an immediate or short-range consequence of patient strong laughter with respect to an increase in these behaviours. It appears that the proportion of risky behaviours in strong laughter statements is extremely high, and that this proportion drops precipitously in the immediate consequent patient statements which do not contain strong

laughter. Furthermore, it appears that the proportion of risky behaviours contained in these immediate patient statements is not significantly different from the moderately low level of risky behaviours contained in patient statements throughout the balance of the session. In the simplest of terms, when the patient is laughing, risky behaviour is high. When the laughing stops - so does the risky behaviour.

The proportion of verbal behaviours judged indicative of problems or pathology was extremely low both in the strong laughter statements and the immediate patient non-laughter statements which followed. In fact, the larger proportion of verbal behaviours judged this way occurred in the remaining non-laughter statements. Even this proportion was extremely low. It appears that verbal behaviours judged to be indicative of problems or pathology are a very low frequency occurrence in the therapy sessions used in this research. This is regardless whether these behaviours occur along with patient laughter, in patient non-laughter statements immediately following laughter, or in all remaining non-laughter statements across the sessions.

The lack of an increase in risky behaviours in the non-laughter patient statements immediately following outbursts of patient strong laughter highlights the distinctive association between strong laughter and risky behaviour. This finding again points to the strong association between patient strong laughter and the concomitant occurrence of risky behaviour. However, it must be emphasized that there is no evidence to

suggest from this research that strong laughter causes or brings about risky behaviour. The design of the study demonstrates a non causal strong association between strong laughter and risky behaviour.

Implications for practice. For therapists who value the expression of strong feeling it can be produced by encouraging events that have strong laughter or encouraging events that contain risky behaviour or that contain a combination of both.

For those theorists and therapists who do not value strong laughter accompanied by risky behaviour the findings are in one sense encouraging. While strong laughter and risky behaviour are not a welcomed and therapeutically desirable event in the session, the findings suggest that strong laughter does not result in the immediate short-range increase of such therapeutically undesirable risky behaviour. While risky behaviour may occur it is most likely to occur as an accompaniment to strong laughter and will not occur in patient statements immediately following the strong laughter. It appears strong laughter does not contribute to a further opening of dangerous risky behaviour.

The Cumulative Effects of Strong Laughter.

The findings do not support the prediction of an increase in the proportion of patient statements judged to contain risky behaviours or behaviours indicative of problems or pathology immediately following episodes of patient strong laughter with each successive episode of strong

laughter across therapy sessions. The findings yielded no evidence to suggest a cumulative effect of patient strong laughter. It appears that the proportion of risky behaviour found in patient non-laughter statements immediately following an outburst of patient laughter either remains the same or decreases with each successive outburst of laughter. Patient strong laughter does not appear to encourage the occurrence of more and more risky behaviour in non-laughter statements following each additional instance of laughter.

Only one statement was judged to be indicative of problems or pathology in a patient non-laughter statement immediately following an outburst of laughter. The proportion of statements judged to be indicative of problems or pathology in non-laughter statements immediately following virtually all outbursts of laughter was zero.

Implications for practice. The findings suggest that each occurrence of strong laughter accompanied by risky behaviour is apparently independent and that there is no cumulative effect over repeated instances. However, there is the possibility that methods may be developed in order to sustain and develop risky behaviour once they have been shown. These methods may contribute to a potential cumulative effect of patient strong laughter.

Given that a therapist would set out to promote strong laughter over the course of a session, what would the changes be over time with respect to the strong laughter? What might the cumulative effect be of the strong

laughter? For therapists who value strong laughter the answer depends upon how the strong laughter is used and not on the laughter per se. For example, some therapists use strong laughter as one means of strong feeling expression. The cumulative effect of strong laughter therefore would relate to the cumulative effect of how strong feelings are utilized in therapy sessions. Some therapists use strong laughter to promote insight. The cumulative effect of strong laughter for these therapists would relate to the cumulative effect of the process of insight in therapy sessions. The point is that it is not the laughter itself that is important; rather, it is how the laughter is used.

Again, for therapists who do not value patient strong laughter and risky behaviour the results suggest that strong laughter does not contribute to an ever expanding occurrence of dangerous risky behaviour.

The Theoretical Significance of Risky Behaviour Accompanying Patient Strong Laughter

The findings suggest that the overwhelming majority of discrete, singular outbursts of patient strong laughter is accompanied by verbal behaviours judged to be risky. What is the theoretical significance of risky behaviour for those clinical theorists for whom strong laughter is a welcomed and desirable in-therapy event? What is the theoretical significance of risky behaviour for those clinical theorists for whom

strong laughter is an unwelcomed and undesirable in-therapy event? This section will present speculations related to these questions.

Strong Laughter as a Welcomed and Desirable Event

Strong laughter is seen as a welcomed in-therapy event, as an indicator of a desirable shift in the patient's self concept, an expression of a valued or optimal state, a positive patient-therapist relationship, therapeutic change, a corrective experience. While these constitute the major theoretical reasons for positively valuing patient strong laughter, they appear too vague to provide an answer to the question of how the patient is being and behaving at the moment of laughter. The findings indicate that at the moment of strong laughter the patient is most likely to be engaging in risky verbal behaviour. Do these findings shed light on the positive value some theorists see inherent in patient strong laughter? While no direct evidence exists, the following speculations may be in order.

Strong laughter is seen as an indication of a therapeutically desirable shift in the patient's self concept or self perspective. This shift might be in the direction of the patient accepting oneself (Farrelly & Brandsma, 1974; Mindess, 1971, 1976; Perls, 1970) or of a positive change in personal cognitions and constructs (Viney, 1983). The shift may also be in the direction of viewing oneself in accord with the therapist's interpretations or viewing oneself with greater insight (Berne, 1972;

Grotjahn, 1966, 1970; Mindess, 1971; Poland, 1971; Rose, 1976; Schimel, 1978).

It may be speculated that there is a shift occurring in who the patient is and how the patient sees himself. This shift appears to be in the relationship the patient has with risky behaviour. The movement is away from a person who must defend against or block impulses or tendencies for risky behaviour, and toward a person who, at least during the moment of strong laughter, welcomes them, accepts them, and manifests good feelings toward them. There is a shift in the direction of an openess or a cordiality toward risky behaviours and experiences. Rather then defending against these behaviours, the patient is a person who freely expresses risky behaviour, toward the therapist, toward another, or about oneself. The patient is a person who describes with good feelings risky behaviours he/she has done in the past. The patient is a person who is able to react to some risky behaviour previously expressed by the therapist or the patient.

Patient strong laughter is seen as an expression of a psychologically valued or optimal state. This state has been characterized by energy, freedom, zest, openess, awareness, acceptance, mastery, and inner harmony (Berne, 1970; Harman, 1981; Jackins, 1965; Jasnow, 1981; Kris, 1940; Levine, 1976; Mindess, 1971; Olsen, 1976; Perls, 1970; Viney, 1983). It is speculated that the patient's willingness to engage in risky behaviour forms a part of this valued or optimal state. At the moment of

laughter the patient is aware of his/her risky tendencies, accepts them for what they are, and is open and cordial to them. As such, the patient may be seen to integrate these aspects of him/herself into the personality.

Many clinical theorists view patient strong laughter as indicative of a positive patient-therapist relationship (Bugental, 1979; Farrelly & Brandsma, 1974; Greenwald, 1975; Grotjahn, 1966; Pierce et al, 1983; Polster & Polster, 1973; Rose, 1969; Rosenheim, 1974). The findings provide soft evidence to speculate that the sharing of risky behaviour between patient and therapist may be a manifestation of this positive relationship. When listening to the actual audiotapes of the sessions, one is struck by the openess, the spontaneity, the sheer delight and acceptance of both the patient's and therapist's expression and reception of risky behaviours. While not objectively documented, one cannot help but get the feeling of listening to two individuals sharing and playing with some wicked little secrets. The sharing and engaging in risky behaviour appears to be done in a relationship that is warm, accepting and intimate.

Patient strong laughter is valued as it is indicative of psychotherapeutic change by those that believe change to come about through strong feeling expression (Farrelly & Brandsma, 1974; Harman, 1981; Jackins, 1965; Mahrer, 1978, 1983; Nicholas & Zax, 1977; Olsen, 1976; Perls, 1970; Pierce et al, 1983). The findings indicate risky behaviour to be much more likely to occur concomitant to strong laughter

compared to non-laughter statements. To the degree that risky behaviour is so closely associated with strong laughter, it is speculated that risky behaviour provides an avenue of psychotherapeutic change based upon the expression of strong feeling.

Therapeutic value is seen in patient strong laughter as a corrective experience. Prerost (1984) believed that when a patient was able to laugh at herself and at significant others, hostile impulses were safely released. The release of impulses were positively related to outcome measures of increased favourability of self concept ratings and decreases in anxiety ratings. Retzinger (1985), by encouraging the expression of anger, found a decrease in the amount of anger shown in the faces of subjects who spontaneously laughed while discussing their resentment which occurred in certain life situations. Both studies value laughter because it allows for the safe expression of hostile or angry impulses.

This valuing of laughter is consistent with the findings of the present research. When the actual content of patient statements containing strong laughter is examined, many of the risky behaviours were seen to be of a hostile or aggressive nature. The hostility and aggression was either directly expressed, described as having taken place, or previously expressed and now reacted to. This provides soft support for the speculation that the risky behaviour accompanying strong laughter constitutes part of the corrective experience valued in patient strong laughter.

For those clinical theorists who positively value patient strong laughter as a therapeutically welcomed and desirable in-therapy event, it is speculated that risky behaviour underlies the reasons for positively valuing strong laughter.

Strong Laughter as an Unwelcomed and Undesirable Event

What is the theoretical significantce of risky behaviour for those who view strong laughter as a therapeutically unwelcomed and undesirable in-therapy event? By and large, these clinical theorists regard laughter as an expression of dangerous unconscious processes (Bergler, 1956; Freud, 1960; Grotjahn, 1970; Harman, 1981; Koestler, 1964; Plessner, 1970) and serious psychopathology (Levine, 1976; Noyes & Kolb, 1963). For these theorists, risky behaviour is the surface manifestation of dangerous unconscious impulses and processes and very well may be indicative of serious problems or psychopathology. This is perhaps because risky behaviour is impulsive, unusual, tabooed, aggressive, wicked, normally defended against, and therefore theoretically, risky behaviour is potentially dangerous behaviour. It may be dangerous because it represents dangerous unconscious processes which either are or may be acted upon.

At best, the occurrence of laughter accompanied by risky behaviour may be used as a diagnostic marker by the clinician, as an indication of a problem area. For example, expressed risky behaviour may be seen as unconscious impulses directed toward the therapist, toward another, and

even toward the self. Risky behaviour directed toward the therapist may include examples of transferential behaviour or perhaps resistance. Risky behaviour directed toward another or toward or about oneself may point to behaviour which may potentially be acted out. Described risky behaviour may point to the possibility of impulsive acting out and problems with impulse control.

For the clinical theorists who see patient strong laughter as an unwelcomed and undesirable in-therapy event, the speculation is that risky behaviour represents the surface manifestation of dangerous unconscious impulses and serious problems and pathology. It is for these reasons that patient strong laughter is held to be therapeutically undesirable and perhaps dangerous.

It must be pointed out that the present design does not allow conclusions to be drawn about whether strong laughter is desirable or undesirable, pathological or not pathological. While the preponderance of strong laughter statements were judged to contain risky behaviour, risky behaviour is viewed idiosyncratically by the proponents and opponents of strong laughter. The proponents of strong laughter see risky behaviour as desirable and not pathological while the opponents see risky behaviour as undesirable and pathological. The present study did not contain mutually exclusive categories of risky behaviour divided into desirable versus undesirable kinds of risky behaviours. Therefore, this study provides no

data by which to conclude definitively the question of desirability of patient strong laughter.

Further Research

This section will offer suggestions for further research based upon the limitations and extensions of the present study.

Extension and Verification of the Study

One of the restrictive factors in the study was the relatively small data sample. While providing an adequate test of the hypotheses, a greater number of strong laughter episodes and complete sessions containing multiple instances of strong laughter would have been desirable. The inherent problem is one of availability of data. First and foremost, therapists and patients must be willing to allow audiotapes of their sessions to be used in research. Secondly, patient strong laughter is a relatively low frequency in-therapy behaviour. The present data was gleaned from over 320 hours of psychotherapy collected over several years, and represented all of the available laughter data from this pool.

Verification of the results using a larger sample of patient laughters with additional therapists and patients representing other therapeutic approaches and patient characteristics would appear valuable.

While therapists used in the study represented a moderate range of therapeutic approaches, the preponderant component in the therapies was humanistic-experiential. No therapists could be identified primarily as behavioural or psychoanalytic. The inclusion of psychoanalytic therapists seems particularly warranted as they are more apt to regard patient strong laughter as accompanied more or less directly by problems or pathology.

Additional patients with more detailed histories would add depth to a future verification study. All patients in the present study were non hospitalized adults with problems rather representative of people seeing private practitioners (e.g., marital, family, sexual problems; interpersonal difficulties; poor self concept). While no diagnosis was available for these patients, few if any appeared to manifest severe psychopathology. This in itself may have contributed to the extremely low proportion of patient statements rated as indicative of a problematic or pathological state (Category 2).

The suggestion is that the results of the study may be verified using a larger sample of strong laughter episodes from a different or more representative sample of therapists and patients.

Improvements to the Category System

The research employed a three-fold category system of 1) Risky behaviour; 2) Problematic-pathological state; and 3) Other. Also used was a five-fold category system comprised of sub-categories of the general

risky behaviour category from above. The judges had very little difficulty rating the 60 exerpts of patient strong laughter using the three-fold category system. Only two exerpts were excluded from study because they failed to reach criterion. The judges did not agree as to whether these exerpts were examples of "risky behaviour" or "other" behaviour. Criterial agreement was attained for 55 laughter exerpts judged to be examples of "risky behaviour".

However, when these 55 strong laughter exerpts judged to contain risky behaviour were rated using the five-fold system of subcategories of risky behaviour, 15 strong laughter statements failed to reach criterion and were deleted from study. This represented a deletion of 27.3% of the available data. It appears that the raters were very good at generally being able to distinguish risky behaviour but not nearly as good at being able to distinguish between types or sub-categories of those risky behaviours.

In examining the 15 strong laughter exerpts deleted from further study, it appeared the difficulty was in discriminating between a few sub-categories of risky behaviour. Closer inspection revealed some raters focussed on certain patient words to assign the rating while others focussed on different words. Some exerpts therefore could quite "correctly" be rated in two ways. In order to minimize dual ratings it is suggested a more precise category system be developed and raters be given better guidelines with respect to statements that may warrant more than

one rating. A more precise category system may necessitate the addition of further subcategories which may consolidate dually rated exerpts under one subcategory heading. This new subcategory may be developed through close examination of instances of strong laughter which originally had been discarded due to dual ratings.

The Consequences of Patient Strong Laughter

A logical extension of the present research is the continuation of the study of the consequences of patient strong laughter. From this point further research may proceed in two directions. The direction one takes is determined in large by the meaning strong laughter holds as a variable or as a therapeutic event. This meaning will determine the questions asked and the research strategies employed in answering those questions.

Strong laughter as a meaningful process event. For those that view patient strong laughter as a meaningful process event, the suggested avenue for research is the study of the relationship of this process event to various measures of outcome. The general question might be phrased: "What therapeutic changes occur subsequent to patient strong laughter?" The general question would be answered by examining various outcome measures taken either within or outside of the therapy session. Although this is a departure from the present research stategy it is a meaningful way of studying the consequences of patient strong laughter for those that view laughter as a process event.

The literature on patient laughter allows for some predictions to be made between strong laughter and possible therapeutic outcome. One outcome of patient strong laughter is a shift in the patient's self concept or self perspective (e.g., Farrelly & Brandsma, 1974; Mindess, 1971, 1976; Perls, 1970). Evidence for a significant increase in patient self concept ratings following laughter during therapy sessions has been reported by Prerost (1984).

Another outcome of patient strong laughter derived from the literature is the heightened development of a positive patient-therapist relationship (e.g., Mindess, 1971, 1976; Narboe, 1981). Characteristics of this relationship include warmth and acceptance, intimacy, and a reduction of emotional distance.

A third outcome from the literature is the relation between patient strong laughter and psychological health which is captured in constructs such as integration, adjustment, and actualization (e.g., Greenwald, 1975; Levine, 1976; O'Connell, 1975).

In addition to the above predicted outcomes derived from the laughter literature, the relationship of patient strong laughter to a number of standard outcome measures may be examined. These measures might include reduced psychopathology, improved adjustment, and the reduction of symptoms. Soft support for the relationship between patient strong laughter and positive outcome is offered by Nichols (1974) and Nichols and Bierenbaum (1978) who found a significant relationship between positive

therapeutic outcome as measured by changes in MMPI subscales, changes in ratings of personal satisfaction and progress toward behaviourally defined goals and in-therapy feeling expression which included laughter. Additional soft support for the relationship between patient strong laughter and the reduction of symptoms is provided by Prerost (1984) who reported a decrease in a patient's self report of anxiety following therapy sessions where laughter was encouraged. In an analogue study Retzinger (1985) reported a decrease in the amount of anger shown on the faces of three subjects who laughted while discussing situations characterized by resentment compared to subjects who did not laugh.

One broad avenue of research then is the study of the relationship between patient strong laughter and a variety of measures of positive therapeutic outcomes.

Strong laughter as a meaningful in-therapy outcome. For those that view patient strong laughter as a meaningful in-therapy outcome or a meaningful in-therapy change event, further research on the consequences of strong laughter will take a different tack. At least two research questions are relevant. The first is: "What is the patient like while he is laughing; how is the patient being and behaving at the moment he is laughing?" This question was addressed by the present research. However, the focus of the research was exclusively on patient strong laughter. Further research may open the window of laughter to include instances of patient mild and moderate laughter. Are patients being and behaving in a

different manner during moments of mild and moderate laughter compared to moments of strong laughter?

The question of what the patient is like was answered by this research only in terms of the category system of risky behaviour, problematic-pathological state, and an all other category. Further research may employ other category systems to examine additional parameters related to the question. One parameter might be the patient-therapist relationship. One prediction derived from the literature is that patient strong laughter is indicative of a positive patient-therapist relationship (e.g., Mindess, 1971, 1976; Narboe, 1981) characterized by warmth and acceptance, intimacy, and a reduction of emotional distance. A category system may be specifically developed in order to gather this type of data.

The second relevant research question may be stated: "Once laughter has occurred, what did the therapist do to bring it about?" It is this question which becomes the focus of suggested research. However, regardless of which of the two relevant research questions are examined, both are answered using a research strategy which takes a careful, fine-grained look in and around the laughter event.

Operations designed to bring about therapeutically valued strong laughter events. For those that therapeutically value strong laughter it is important to be able to identify therapeutic operations leading to such valued events. While the study by Gervaize, Mahrer, and Markow (1985)

identified a set of therapist operations which antecede patient strong laughter in general, the present findings open up the likelihood that each subcategory of risky behaviour may be brought about by its own characteristic set of therapeutic operations. This would have very specific, concrete and practical implications for the psychotherapist who values strong laughter, and especially one who values particular kinds of risky behaviour. Such research would provide the specific therapist operations or perhaps the specific patterning of therapist-patient operations that bring about specific types of valued risky behaviour. For example, a therapist, who values patient laughter may particularly value moments of laughter accompanied by the patient expressing risky behaviour toward a significant other person. The results from the suggested investigation would indicate which specific therapist operations could be used to maximize patient laughter accompanied by the expression of this particular kind of risky behaviour.

Operations designed to sustain and develop what is therapeutically valued in strong laughter events. For therapists who value patient strong laughter accompanied by risky behaviour, the question becomes what can be done in order to sustain and develop the therapeutically valued behaviours. The present findings suggest that once the patient stops laughing, so does risky behaviour. This may be because risky behaviour is inextricably bound to strong laughter. However, it may also be because therapists do not know how to sustain and develop risky behaviour once it

has occurred. Again, the several subcategories of risky behaviour bear implications for what may be done. Additional research may be able to clarify specific therapist operations or therapist-patient interactions which sustain and develop specific kinds of valued risky behaviour.

While it was beyond the scope of the present research to examine the issue of sustaining and developing risky behaviour, some illustrative speculations may be offered. If the risky behaviour is expressed directly toward the therapist, that risky behaviour may be sustained and developed by particular therapist operations such as playful acceptance ("Good for you" You really let me have it!"), joining with the patient ("And no one's going to make me!"), encountering-arguing with the patient ("Oh yes you will! Dammit, do it!"), or welcoming surprise ("I don't believe what I'm hearing!").

If the risky behaviour consists of the patient's description of a risky behaviour carried out by the patient, that may be sustained and developed by other operations such as concretely specifying the behaviour ("You smacked him in the mouth? With a fist?"), sheer delight ("Oh wonderful!"), clarifying the scene and other figure ("I can see the shocked expression on his face!"), joining with the patient in the behaviour ("There, you want more, pal?"), joining with the patient in the feelings ("Oh, that feels just great!"), taking the role of other personality parts ("That was awful, you shouldn't do that!").

If the patient's laughter was part of a reaction to risky behaviour, it may perhaps be sustained and developed by the therapist agreeing with the patient's reaction ("You're right, they would die, they really would die!"), reflecting the patient's reaction ("You really liked that!").

Each subcategory of risky behaviour invites the possibility of distinctive, therapeutic operations in order to sustain and develop the valued event. The suggested avenue of research is to investigate these sustaining and developing operations.

A Model of Patient Strong Laughter

The results of research based upon the careful examination of the operations designed to bring about therapeutically valued strong laughter and the operations designed to sustain and develop what is valued in the strong laughter may be used to construct a model of valued patient strong laughter. This model would be of practical use to therapists cordial to patient strong laughter accompanied by risky behaviour or therapists cordial to risky behaviour in and of itself.

Gervaize, Mahrer, and Markow (1985) suggest that for strong laughter to occur, two conditions must be present. First, the patient must be in the vicinity of material which is risky. Second, the material must have the potential of being behaviouralized, of being brought forward into concrete expression. These two conditions comprise the first stage in the model.

The second stage of the model is related to the operations designed to bring about therapeutically valued strong laughter events. Once the two conditions of the first stage are manifest, a specific therapist operation may be implemented to maximize the probability of the patient engaging in a specific type of sub-category of risky behaviour.

The third stage of the model, following the strong laughter, involves the sustaining and developing of the particular type of valued risky behaviour. In this stage specific therapist operations can be implemented which have been found to maximize the probability of the patient sustaining and developing specific types of risky behaviour.

The model can be used essentially to answer three questions for therapists who positively value strong laughter and/or risky behaviour: When is the best time to promote patient strong laughter? What specific therapist operations will result in patient strong laughter accompanied by specific types of risky behaviour? What specific therapist operations will sustain and develop specific types of risky behaviour once they have occurred?

It must be emphasized that the only research strategy allowing for the construction of such a model is a research strategy which performs a careful, intensive, fine-grained, in-depth analysis of what occurs in and around significant moments or epochs in therapy sessions. This research strategy is in accord with the call of many psychotherapy researchers whose aim is to discover more of what is occurring in and around moments

which have been flagged as significant, either as therapeutically problematic, or as valuable, change-producing, good process, improvement, progress, therapeutic movement (Elliott, 1983a, 1983b; Fiske, 1977; Greenberg, 1975, 1979, 1980, 1983; Horowitz, 1979; Kiesler, 1973; Luborsky & Auerbach, 1969; Mahrer, 1983, 1985; Rice & Greenberg, 1981, 1984).

Results from such research strategies will help to develop models, like the proposed model of patient strong laughter, which will have implications for the practice of psychotherapy. Therapists will be provided with models of probabilistic cause and effect relationships between specific therapist or therapist-patient operations and specific patient consequences. This type of operational knowledge will contribute to a workable psychotherapeutic technology, which according to Greenberg (1983) will help to elevate the practice of psychotherapy toward a scientific praxis.

Additional Research Variables Related to Strong Laughter

Additional research variables related to patient strong laughter may be studied.

Patient variables. As previously mentioned, there was very little information on the patients used in the study. Further research may be done using patients with specifically defined characteristics to examine potential differences in their verbal behaviours concomitant to strong laughter. Variables of interest might be patient diagnosis, degree of

problems or pathology, and various personality dimensions such as ego strength, emotional expressiveness, aggressivity, impulsiveness, defensiveness.

The present research limited itself to the examination of the patient's verbal behaviours accompanying strong laughter. A potentially valuable additional source of data is the patient's non verbal behaviour during episodes of strong laughter. Of particular interest would be the patient's posture and body movement as well as neurophysiological indicators. Non verbal behaviour was not examined because of the very real problem of collecting a large enough psychotherapy videotape library from which to screen for sufficient episodes of patient strong laughter. However, the importance of the use of videotape exerpts cannot be minimized. In the present study, videotapes would have provided additional data related to the bodily aspects of strong laughter. This data may have contributed to a richer understanding of differences occurring in instances of strong laughter accompanied by risky behaviour compared to instances of laughter accompanied by problems or pathology. Videotapes would provide more information on what is actually happening during these moments of strong laughter. In addition, videotapes would aid in the identification of laughter accompanied by different "feelings" such as sorrow or anxiety and thus provide additional data related to different "kinds" of strong laughter.

Therapist variables. The therapists who conducted the six complete sessions were male. While not a major point in the study, a more balanced distribution of therapists would have allowed for an examination of sex differences in the occurrence of risky behaviour. While no differences were found in the frequency of risky behaviour between male and female patients, no such comparison could be made amongst the therapists. In addition, no comparisons could be made between different therapist-patient dyads and the possible differential occurrence of risky behaviour as a function of the sex of the therapist and the patient.

Therapeutic approach. The therapists used in the present study represented a moderate range of therapeutic approaches. However, most of them used components related to humanistic-experiential therapies. There was a glaring absence of therapists using a strictly psychoanalytic or behaviouristic approach. Further studies should be done examining the occurrence of strong laughter in these approaches and their concomitant verbal behaviours. Patient strong laughter appears to occur in large measure in those therapies perhaps because they are expressive in nature. The question remains as to whether patient strong laughter occurs in other therapies such as the traditionally non-expressive therapies such as psychoanalytic and behaviour therapies.

Phase of therapy. The exerpts of patient strong laughter and the complete therapy sessions forming the data in this study were mostly from the middle phases of therapy. Further research may examine more carefully

the relationship between patient strong laughter and its concomitant verbal behaviours as a function of the phase of therapy. Is patient strong laughter more likely to occur in the beginning phase of therapy? Or is laughter more likely to occur in the middle or the end phase of therapy?

While the present study examined the occurrence of patient strong laughter across some individual sessions, further research may examine patient strong laughter across a sequence of therapy sessions with the same patient to expand the window to look for potential patterns and consequences.

Patient-therapist dyad. This research focussed exclusively on the patient's verbal behaviour as the unit of study. Further research is recommended using the patient-therapist dyad as the basic unit of analysis. Because therapy involves the interactive process of communication between two individuals it would be valuable to examine how the therapist responds to the patient's laughter and how this response may serve to encourage or discourage subsequent patient laughters. Of particular interest would be differences in patient-therapist dyads where the patient engaged in laughter accompanied by risky behaviour compared to instances where patient laughter was accompanied by indications of problems or pathology. From a casual listening, it appears that therapists are more likely to share in the patients "risky behaviour" laughter than they are to share in "problematic-pathological" laughter. The study of patient-therapist dyads would provide data on these and related issues.

Kinds of laughter. The present study examined verbal behaviours concomitant with instances of patient strong laughter. No attempt was made to discriminate instances of laughter accompanied by different "feelings". For example, some laughters may be accompanied by feelings of joyous exhilaration while other laughters may be accompanied by sorrow or anxiety. Further research may examine these "kinds" of laughter in an attempt to provide a more detailed description of what is occurring during these moments of patient strong laughter.

One might speculate that different "kinds" of laughter would be accompanied by different types of risky behaviour and/or behaviour indicative of problems or pathology. For example, perhaps laughter accompanied by feelings of sorrow might share a stronger association with verbal behaviours indicative of problems or pathology than with risky behaviours.

Conclusions

The study involved an in-depth examination of (a) 60 patient strong laughter exerpts representing 21 patients seen by seven therapists over 26 sessions and, (b) all patient strong laughter and non laughter statements from six complete therapy sessions representing six patients seen by three therapists. Within the limitations and restrictions of the data and the design, the following conclusions may be drawn.

When exerpts of patient strong laughter were examined:

1. The preponderance of strong laughter occurred in statements (94.8%) judged to contain risky verbal behaviour (i.e., behaviour defined as wicked, tabooed, nasty, devilish, outrageous, impulsive, aggressive, not typically expressed, excitingly threatening). A small proportion of strong laughter occurred in statements (5.2%) judged to be indicative of problems or pathology. No instances of strong laughter were judged to fall into an 'Other' category. The findings lend support to a "risky behaviour" hypothesis which states that strong laughter accompanies verbal behaviour that is risky.

2. There are subcategories of strong laughter statements involving risky behaviour. Risky behaviour may be expressed (52.5%) toward or about some figure. Of these expressed risky behaviours, risky behaviour may be expressed (a) toward the therapist (52.4%), (b) toward some other figure (28.6%), or (c) about oneself (19.0%). Secondly, risky behaviour may be described by the patient as carried out by the patient or by some other (15.0%). Thirdly, risky behaviour may have been described or expressed earlier by the therapist or patient and is now being reacted-to (32.5%).

3. For therapists who value the in-therapy occurrence of patient strong laughter, the findings indicate the presence of the above specific subcategories of welcomed and desirable risky behaviour, and point to the possibility of specific therapeutic operations to sustain and develop these given subcategories of risky behaviour.

4. For therapists who regard patient strong laughter as therapeutically problematic or dangerous, the exceedingly high proportion (94.8%) of risky behaviour also confirms their therapeutic position. Even though a small proportion (5.2%) of concomitant verbal behaviour was judged as falling in a problematic-pathological category, the findings as a whole are quite supportive because these therapists do not make a distinction between risky behaviour and behaviour indicative of pathology. Furthermore, the subcategories of risky behaviour allow these therapists to gain meaningful clinical inferences about the more specific content of the therapeutically problematic or dangerous material.

When all patient strong laughter statements and all patient non laughter statements across six complete therapy sessions were examined:

5. Patient strong laughter and risky behaviour share a distinctive and somewhat unique relationship with one another. Most patient strong laughter statements contained risky behaviour (88.2%) while only 17.4% of all other patient statements contained such behaviour. This difference appeared consistently throughout each of the six complete sessions. Strong laughter appears to be an effective and efficient means of enabling the occurrence of risky behaivour. Therapists who value risky behaviour are encouraged to use methods designed for the promotion of strong laughter.

6. The distinctiveness or uniqueness of patient strong laughter compared to other patient statements lies in the significantly larger

proportion of risky behaviour that is described or reacted-to by the patient. Strong laughter is not unique with regard to risky behaviour that is directly expressed. It appears that strong laughter may occur in place of the direct here and now expression of risky behaviour in the session. As such, strong laughter may allow for the safe expression of risky behaviours through its description or reaction rather than its action or expression. However, strong laughter may indicate the patient's readiness for a more direct expression of risky behaviour. Appropriate methods may be used to bring about the direct expression in cordial therapies.

7. There is no immediate consequent effect of patient strong laughter on the occurrence of risky behaviour or behaviour indicative of problems or pathology. In the five patient statements consequent to strong laughter, the proportion of risky behaviour is 12.1% which is not significantly different from the proportion of risky behaviours in the balance of the session (17.4%). The corresponding proportions of problematic-pathological behaviours in the five patient statements consequent to strong laughter compared with the proportion of these behaviours in the balance of the sessions are 0.7% and 3.2%.

For therapists who value the occurrence of risky behaviour, methods are needed to maintain the high proportion (88.2%) of risky behaviour contained in the antecedent strong laughter statements. For therapists who do not value risky behaviour, strong laughter does not appear to encourage further occurrences of risky behaviour.

8. There is no cumulative effect of patient strong laughter on the occurrence of risky behaviour or behaviour indicative of problems or pathology. For both types of behaviour, the proportion does not increase in the five patient statements consequent to strong laughter with each subsequent instance of patient strong laughter across the sessions.

Again, for therapists who value risky behaviour, methods are needed to sustain and further develop these desired risky behaviours across the session. For therapists who do not value risky behaviour, strong laughter does not appear to lead to an accumulation of risky behaviour across the session.

9. No sex differences are seen in the occurrence of strong laughter in the six sessions. Male patients engaged in strong laughter an average of nine times over three sessions. Females laughed strongly an average of eight times over three sessions.

10. No sex differences are seen in the occurrence of risky behaviour in the six sessions. Male patients engaged in risky behaviours in 22.6% of the statements across three sessions. Females engaged in risky behaviours in 21.3% of the statements across three sessions.

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APPENDIX A

APPENDIX A

Instructions for the Identification of Strong Patient Laughter

The following is the written description for the three judges who will be identifying instances of strong patient laughter. A cassette tape with examples of strong patient laughter as well as examples of mild and 'nervous' patient laughter will accompany this description.

Your task is to identify all instances of patient strong laughter. By strong patient laughter, we mean laughter of the intensity you have just heard on Part I of the cassette. It is hard, loud, raucous, and characterized by heightened intensity. It is not giggles, chuckles, or nervous tittering that you have just heard examples of in Part II of the cassette. It is strong, clearly identifiable laughter. This is the type of laughter similar in intensity to that you heard in Part I of the cassette. If you have any questions about the intensity level, go back and listen to the examples again. It does not matter whether the patient is having pleasant or unpleasant feelings while laughing, whether the patient is also crying or yelling or mad or bothered or happy. It is the intensity which is the important thing. If the laughter is a mixture of strong and not strong, include it as strong laughter.

Instructions for judge 1:

Listen to each session. Each time you identify strong laughter, note the session number and the number on the tape counter where the laughter occurs. If strong laughter occurs continuously throughout a number of interchanges, note the counter numbers which correspond. If, in a single session, a patient laughs more than 12 times, write down the session number and the word 'exclude'.

Similarly, when you identify moments of mild, low intensity laughter, note the session number and the number on the tape counter where the mild laughter occurs.

Instructions for judges 2 and 3:

Listen to all the instances of patient laughter. If you believe an instance meets the definition of strong patient laughter, mark down the word 'yes' after the corresponding number on the list you have been given. If you believe an instance does not meet the definition, mark down the word 'no'.

APPENDIX B

APPENDIX B

INSTRUCTIONS FOR CATEGORIZING PATIENT STATEMENTS

1) Study the preceding patient statment(s).

In order to categorize the patient statement, it is usually sufficient to study the immediately preceding therapist statement.

T Tell him you love him.

P I love you John, I really love you.

If that statement is very short, or ambiguous in meaning, or makes sense only by knowing the statements of the patient and therapist earlier, then study those too.

T1 What did you do?

P1 I left the room.

T2 What?

P2 You bet, as fast as I could.

In order to categorize P2, it is difficult to limit your study to T2. But P2 makes sense when you look at the preceding patient and therapist statements.

2) Use only a single category for each patient statement.

Typically, there is only one category which is appropriate for the patient statement. Therefore, use only a single category for each patient statement.

As a rare occurrence, a patient statement may have one category for the first part and another category for the second part. It is as if the patient is doing two separate things, one at a time. If this is the case, give preference to the one that occurs first, as this has the greatest impact on the patient.

3) A patient statement includes everything spoken by the patient, preceded and followed by therapist statements.

A patient statement may consist of a single word (or a behavioural movement such as slapping the chair, or a noise such as a sigh or a grunt). A patient statement may consist of a number of sentences and may contain many ideas or thought units.

4) Rate each exerpt according to the following categories.

(a) Three-fold category system:

1) Risky behaviour

2) Problematic-pathological state

3) Other

(b) Five-fold category system:

The actual categories and/or subcategories to be used are marked with an (*).

1) Expressed Risky behaviour

*1a) Toward therapist

*1b) Toward other

*1c) About oneself

*2) Described Risky behaviour

*3) Reacted-to Risky behaviour

Three-fold Category System

1. Risky behaviour. The patient is generally engaging in behaviours that are risky. These behaviours are described as wicked, tabooed, nasty, devilish, outrageous, impulsive, aggressive, not typically expressed, excitingly wicked, excitingly threatening.

The following are some examples of laughter epochs illustrative of Category 1: Risky behaviour.

1) T: You sound angry with me.

P: If I have to be angry with someone it might as well be you. You have to do something to earn your money (Strong Laughter).

2) T: You're a good person. Everybody likes you.

P: Yah. I'm kind and considerate. I don't want to be kind and considerate. I want to be mean. I want somebody to hate me (Strong Laughter).

3) T: Tell her. Let yourself tell her how you feel.

P: I need you. I need you. I really need to be with you now (Strong Laughter).

4) P: I think I hit him with a flyswatter.

T: You did what?!

P: Yeah, I remember. I hit him across the face with a flyswatter (Strong Laughter).

5) T: Come over and give me a hug.

P: I'd like to, I'd really like to do that again (Strong Laughter).

2. Problematic-pathological state. The patient is expressing, manifesting, describing, or referring to a problematic-pathological state. This state is characterized by problems and difficulties, internal or external threat, psychic hurt and pain, avoidance, inability to cope, heightened anxiety and tension, states of disturbance, pathology, chaos, falling apart. This state may be shown directly or just alluded to or indirectly shown. Statements that fall into this category would not qualify under Category 1: Risky behaviour. Therefore, this category excludes any statement that might otherwise fit into Category 1. The following are some

examples of laughter epochs illustrative of Category 2: Problematic-pathological state.

1) T: Do you think you are free from emotional problems now?

P: (Strong Laughter). No ... I'm freer but not free.

2) T: It sounds like things are pretty bad.

P: (Strong Laughter): Yah, bad would be an understatement.

3) T: How are things going at home?

P: I'm trying to keep Mary looking for work and John still wants to quit school. I'm really worried. (pause) It'll be summer soon (Strong Laughter). Manic people always get worse in the summer.

4) T: How is your relationship going?

P: I'm doing my best to keep it going. Time will tell. (Strong Laughter). Crazy people can never maintain a relationship.

3. Other. This category refers to patient statements which do not fit into any other category. It is to be used with patient statements that clearly do not fit into the above categories. If you think that the patient statement may fit in any way into one of the above categories, use the appropriate category, even though the statement may not be the best example of that category. Do not use the OTHER category for these types of poor example statements. It is to be

used only for those patient statements that are clearly not in any of the above categories. A few examples follow.

1) T: So you got yourself a job.

P: Yeah. (Strong Laughter). It feels good to be working again.

2) T: You look really happy.

P: (Strong Laughter). I am, I really am.

3) T: I think your plan to do some exercise is a good one. Whenever I get the urge to exercise, I lie down until the feeling passes.

P: (Strong Laughter). You do! That's funny.

Five-fold Category System

1. EXPRESSED RISKY BEHAVIOUR

The patient is expressing (doing, carrying out, engaging in) behaviour which is risky. The behaviour is risky in that it is wicked, tabooed, nasty, devilish, outrageous, impulsive, aggressive, normally defended against. The risky behaviour is actually being done by the patient in the therapy session.

There are three subcategories of expressed risky behaviour.

1a) Toward Therapist. The patient is expressing risky behaviour. The risky behaviour is directed toward, targeted to the therapist. The behaviour is specific and concrete and is directed toward the therapist as a person present in the interaction. The expression of the risky behaviour may take the form of saying, enacting, carrying out, revealing, or confessing something risky to the therapist. The important thing is that it is directed to the therapist as a person present in the interaction.

The risky material may be bitchy, nasty, aggressive.

1) T: Tell me, I'm not concerned about you.

P: I'm not concerned about you. I'm heartless, I'm not even concerned about you (laughs). (The patient is telling the therapist how cruel the patient is being toward the therapist, showing no personal concern).

2) P: What do you want me to do?

T: I want you to be honest with yourself.

P: I've never been honest with myself in my whole life. You want me to do anything else, maybe be totally cured or something (laughs). (The patient is taking an aggressive poke at the therapist.)

3) T: You sound angry with me.

P: If I have to be angry with someone it might as well be you. Besides, you have to do something to earn your money (laughs). (The patient is taking an aggressive poke at the therapist or the therapy.)

4) P: You're really going to know a lot about me. What if you were to meet some people I know?

T: Then I'd stand on top of Parliament Hill and yell to them how much of a crazy loon you are.

P: (Laughs). Okay ... enough ... I was just wondering. Let me think about it again. (The patient is being nasty by questioning the therapist's confidentiality.)

The risky material may be sexual in nature.

1) P: So I cooked up this elaborate plan and ended up having sex with her.

T: How was that?

P: How was it?

T: How was that, the plan.

P: (Laughs). I thought you meant how was it ... the sex ... fantastic (Laughs). (The patient is sharing with the therapist his sexual adventure.)

The patient may reveal, confess some risky material to the therapist. The patient is not describing risky behaviour which has happened in the past, but is revealing something that is occurring now in the therapy interaction.

1) P: (Mild Laughter). Someone just flashed through my mind, right now, but I can't tell you.

T: (Teasing). Aw, come on, tell me.

P: It was my father (Laughs). (The patient is revealing a risky bit of information to the therapist.)

The patient may be expressing a risky behaviour to the therapist. While the behaviour is expressed to the therapist, the target or subject of the behaviour is a person other than the therapist.

1) T: What's his name?

P: Andy.

T: Andy?

P: (Laughs). Yeah, Andy Asshole.

2) T: Tell me more about her.

P: Well, she's harsh, critical, cruel and overbearing.

T: A real gem.

P: (Laughs). A 14 carot bitch. (In both examples the patient is saying something nasty to the therapist about someone else as this other person is brought up in the context of the session.)

The expression of the risky behaviour may take the form of the patient refusing to do what the therapist asks or invites the patient to do, or opposing the therapist's comments or statements. By refusing or opposing the therapist, the patient is expressing risky behaviour directed toward the therapist.

The patient may refuse the therapist's direction to engage in a specific behaviour.

1) T: Touch my hand.

P: No, I don't feel comfortable doing that (Laughs).

2) T: I want you to look at me, punch the pillow, and yell.

P: No, I can't (Laughs).

3) T: Stop criticizing.

P: Sure. No, impossible, I'm constantly criticizing (Laughs). (The patient in all examples above refuses to engage in the specific behaviour directed by the therapist.)

4) T: Tell her that.

P: No, I won't (Laughs).

5) T: Then let's get the bastards in a room and pound the shit out of them once and for all.

P: (Laughs). Naw, that's not necessary. (In both examples above the patient refuses to engage in a behaviour suggested by the therapist directed to another in a real or imagined scene.)

The patient may oppose the therapist's description, assessment of the patient's behaviour or the patient's life.

1) T: It sounds like you're being critical here.

P: No, not really, not strongly ... I'm not critical (Laughs) .It's not how I really am. (The patient denies, opposes the therapist's description of the patient's critical nature or behaviour.)

2) P: Sometimes my head just gets filled with these wicked fantasies.

T: (Teasing). Ahah - wicked fantasies.

P: No, no, they are not wicked, really (Laughs). (The patient denies, opposes the therapist's focussing on the patient's fantasies.)

1b) Toward Other. The patient is expressing risky behaviour which is directed toward a significant other person. The significant other is any person in the patients life, past or present, with the exception of the therapist. This person may be present in fantasy, memory, or imagination.

It may be clear that the patient is expressing risky behaviour directly toward the significant other (who is present in fantasy, memory, or imagination). This may be in response to the therapists instruction to say, do something with respect to the other or it may be the patient spontaneously speaking to the other.

1) T: Tell him, "Why don't you go".

P: Why don't you go.

T: Tell him to get the hell away.

P: (Laughs). Just get the hell away, go away (Laughs). (The patient follows the therapist's lead and tells the other person to leave.)

2) T: Tell her. Let yourself right now tell her how you feel.

P: I need you. I need you. I really need to be with you now (Laughs). (The patient engages in the risk behaviour of telling the other how much he wants to be with her.)

3) P: I think he's a bastard.

T: Tell him that.

P: You're a bastard (Mild Laughter).

T: Tell him again.

P: You're a bastard (Strong Laughter). The therapist directs the patient to say an aggressive thing directly to the other.)

4) P: Make up your mind. Come to bed or go to the Northpole.

T: Yeah, one or the other, do it.

P: Here's a parka (Laughs). Where do you think I want you to go. (The patient is telling the other to get lost, to go away.)

5) T: (As patient in scene with mother.) You're crazy, you're absolutely crazy mother and I know it. I know it because I am too. Admit it mother.

P: (Laughs). Right, you're so right. I am a crazy lunatic. (The patient is saying something risky to the mother. The reference to <u>you</u> refers to the patient's mother and not directly to the therapist as an individual in his own right.)

In some cases it may not be directly obvious that the significant other is present, but it is strongly implied that the other person is present, in fantasy, memory, or imagination and that the patient is expressing behaviour which is risky toward the other.

1) P: I'd like to take her sailing, but it's too public, someone might see us.

T: Take her on a submarine.

P: (Laughs). Battlestations. Dive, dive. Get below, prepare to dive. (The patient is yelling commands, as if he has switched to a scene where he is on the sub with the other person. Although from the transcript, we are not directly made aware of the presence of the other, the presence is strongly implied. The patient is talking to someone other than the therapist.)

2) T: So act real macho the next time you see her.

P: Oh yah, sure.

T: Why not?

P: Hey baby, how's about you and I moving out on my chopper (Laughs). (The patient is saying a risky statement to an implied other in a scene. The patient has suddenly switched from talking with the therapist to talking to another, even though we are not directly made aware of the other by the previous statements in the exerpt.)

1c) <u>About Oneself</u>. The patient is saying something about him/herself that is risky. That is, the patient is admitting, confessing, criticizing something about him/herself that is bad, embarrassing, aggressive, sexual, highly personal. The risky thing may also, but

not always, imply that the patient is seeing him/herself in a new way, from a different perspective.

1) T: Just let yourself really go. I know you hate the bastard.

P: (Laughs). Right ... I hate him but I also love him. (The patient is admitting strong personal feelings of love and hate.)

2) T: Just look at yourself, admit it. You're fat, you're really fat.

P: (Laughs). My wife keeps telling me I'm getting fatter all the time. (Laughs). She's right, I am, I'm getting fatter and fatter. (The patient is admitting to the embarrasing thing of being overweight.)

3) T: Why did he leave?

P: I think I just get out of control. I start feeling playful and then I end up almost knocking the hell out of them (Laughs). (The patient is admitting to being aggressive.)

4) T: You know, he knew that if he showed up to the party with just any woman you wouldn't have noticed ... but with your best friend.

P: (Laughs). Right. That's what somebody else said. They said he was trying to shake me out of my indifference (Laughs). (The patient is admitting to being indifferent in her feelings toward the other.)

5) T: You're a good person. Everybody likes you.

P: That's for sure, everybody does, I'm kind and considerate. (Laughs). I don't want to be kind. I don't want to be considerate. For once in my life I want to be a mean son of a bitch. I want somebody to hate me. (The

patient is seeing himself in a new way, as someone who wants to be mean and hated.)

2. DESCRIBED RISKY BEHAVIOUR

The patient is describing (reporting, recounting, relating, telling about) a behaviour which is risky. The behaviour is risky in that it is wicked, tabooed, nasty, devilish, outrageous, impulsive, aggressive, normally defended against. The behaviour is specific and concrete. The behaviour may be one which was or may be carried out by the patient or by some other figure, and it may have occurred in actuality, fantasy, imagination, or future possibility. In describing the behaviour, the patient is not actually doing the risky behaviour presently in the therapy session.

The risky behaviour may have actually been carried out by the patient toward a real person in the external world.

1) P: I really yelled at him.

T: What did you say?

P: I told him to stop and leave me alone. He said "You're spitting on me". Spitting. Then I stood real close to him and sprayed him in the face (Laughs). (The patient reports an impulsive, aggressive behaviour directed toward another in the external world.)

2) T: When do we get to the good parts?

P: Soon. He said he was going to the game with an old girl-friend in case I saw him there with another woman. I

said you really don't care about my feelings. He said I didn't think it would bother you. I said think again buster (Laughs). (The patient reports an aggressive confrontation with another in the external world.)

3) P: I think I hit him with a flyswatter.

T: (Pleased, excited). What, what.

P: Yeah, I got him with a flayswatter (Laughs).

4) T: How mad were you?

P: I pushed him down, yeah, I pushed him.

T: (Excited). Wow, you're really excited.

P: (Laughs). Yeah, you bet, I pushed him down, I really pushed him down (Laughs). (In both examples the patients report an aggressive behaviour directed toward another in the external world.)

The patient is describing a risky behaviour that he/she would like to carry out or would like to see happen with respect to another, whether real or imagined in the external world.

1) T: Are you okay?

P: I'm okay. Ruining my life because of him would be crazy. Ruining his life on the other hand (Laughs). (The patient reports a wicked behaviour she would like to do to another in the external world.)

2) P: He went skiing, slammed into a tree and broke my best pair of skis ... Well ... at least he didn't break his neck.

T: At least? (Teasing).

P: Yeah, well ... sometimes I wish he would have broken his neck. (Laughs). He'd be a lot less trouble. (Laughs). (The patient report a nasty, aggressive wish directed toward another in the external world.)

3) T: You think you're the laziest guy in Ontario? There's a guy in Ottawa who's pretty lazy.

P: I got him beat. He left a message for me yesterday and I didn't bother to return the call. (Laughs). (The patient reports a nasty behaviour he would have liked to carry out toward an imagined other.)

The patient reports a risky behaviour carried out by another person.

1) P: So Bob gets a big promotion upstairs.

T: Office on the top floor?

P: Right. They take him up to this beautiful office with a terrific view and ask him how he likes it. He says he doesn't cause he's afraid of heights. (Laughs).

2) P: There's this guy in the weight room. A cross between Frankenstein and Godzilla.

T: Yeah.

P: He's lifted this massive weight when suddenly he screams and drops the thing. I rush over to see what happened and he says "A spider, a spider. I saw a spider. I'm afraid of spiders". (In both examples the patient reports an embarrassing, interpersonally risky behaviour engaged in by another.)

3) REACTED-TO RISKY BEHAVIOUR

The patient is reacting to an expressed or described risky behaviour. The behaviour is specific and concrete, and is risky in that it is wicked, tabooed, nasty, devilish, outrageous, impulsive, aggressive, normally defended against.

The patient's reaction may be characterized by affect and emotion which is positive. That is, the patient is reacting to an expressed or described risky behaviour in such a way as to welcome its occurrence, accept it, embrace it, find it pleasurable.

1) T: Come over and give me a hug.

P: I'd like to, it feels so good if I could do that again. (The patient welcomes the therapists invitation to engage in a risky touching behaviour.)

2) T: Listen to yourself. You know it, I know it. They'll never change. (Loudly). They'll never change.

P: (Laughs). That's right, that's right. (Laugh). (The patient welcomes and accepts the therapist's risky statement that these people will rever change.)

3) P: I told him that I was leaving. He yells at me "I don't give a shit" then turns and walks away.

T: (Playfully). No migraines for him.

P: (Laughs). No migraines for him. (Laughs). (The patient accepts the therapist's playful description of the person's aggressive behaviour.)

4) T: Make yourself do it.

P: (Whining). No, I can't.

T: That's why it's important for you to do it.

P: It'll be terrible, terrible. Okay, I will. (Laughs). (The patient accepts the therapist's invitation to engage in a risky, otherwise not engaged in behaviour.)

The patient's reaction may be characterized by affect and emotion which is negative. That is, the patient is reacting to an expressed or described risky behaviour in such a way as to draw back, reject it, avoid it, find it painful or unpleasant.

1) P: I don't want to be completely open with people.

T: Is that what would happen from therapy? You'd run around telling people how ugly you thought they were?

P: (Laughs). I'd have to watch myself. (Laughs). No, I don't think so. (The patient rejects the notion of behaving in an open, interpersonally risky way.)

2) T: I can see you now, down on your knees in front of her, hands clutched together (whining) "Don't go, don't go, please don't leave me".

P: (Laughs). Shit, no, no I hope I won't. (The patient reacts to the risky behaviour of the therapist, hoping the patient will not behave as the therapist portrays her.)