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CREATIVE BLOCKS IN MUSICIANS: AN EXPLORATION
OF THEIR SELF-REPORTED CAUSES

by

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ABSTRACT

The purpose of this study was to explore the nature and causes of blocks to musicians' creative and re-creative processes. The importance of this investigation was explained in terms of expanding existing knowledge concerning blocks. Data from 57 volunteer subjects were subjected to content analysis, modelled after Crosson (1982a & b) and Porath (1990). Six categories of causes of blocks were identified. Emergent themes included Process-Orientation, wherein blocks are described as integral elements of the creative process, as well as Problem Solving, Working Conditions, Professional Esteem, Emotion, and Physical. Quantitative analyses done on the variables duration and frequency of blocks with creative or re-creative group did not support the hypotheses that associations would be found between these variables and group membership. Tentative support was found for the hypotheses that sex is related to frequency of block and also to duration. Findings confirm a hypothesized difference between the number of causes of blocks cited by musicians with varying duration of their longest block. These results have implications for counsellor awareness of, and practice in dealing with clients' blocks to creative or re-creative tasks. As well, they suggest that future research replicating the study with larger, more evenly matched, and more diverse samples is needed.

Supervisor: Dr. Stephen E. Marks

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This work is lovingly dedicated

to the memory of my mother,

Pauline Bellows Larsen

1916 - 1973

and to my father,

Svend Aage Larsen

1910 -

CHAPTER I

INTRODUCTION

[The] phenomenon of seeing things in a broader context, of getting an overall picture, of overcoming blocks to solve a problem, is not a rare occurrence, but is a feature of thinking well in general.... Creative thinking is not, then, mysterious and different from everyday thinking, but can be accounted for in terms of the processes which constitute all our thinking. Thus everyday thinking and creative thinking are not different in kind but merely in degree....

(Bailin, 1988, p. 74)

Background to the Problem

One of the major challenges people face is the feeling of being blocked or stymied in their efforts to accomplish something they value. This study is being conducted in the hope that its findings may prove helpful

to counsellors' efforts at working with blocked clients.

Everyone is familiar with minor episodes of block, such as concern over thinking up ideas for a personal letter, or guilt about neglecting a favourite project. There are times, however, when feelings of being blocked may reach seemingly unmanageable proportions. The costs of such episodes are hard to measure, given the hidden nature of their deleterious effects. If blocked feelings are recognized as being amenable to treatment, people may decide to seek counselling. If not, they may privately endure the missed opportunities, unrealized hopes, postponed decisions, re-directed careers, and severed relationships which can result from an inability to work creatively with their blocks.

In order for counsellors to work effectively with blocked clients, they require an understanding of those clients' processes. To date, few studies have illuminated this area; the groundwork which has been established needs broadening. The present work is an attempt to extend what is known about experiences of blocks to creative and re-creative working processes in professional musicians.

Individuals whose work it is to discover or formulate creative problems present a special opportunity to the researcher. One way of attempting to understand the processes related to blocked experiences is to examine those processes as they appear in members of a creative

population. These individuals are clearly invested in turning out creative products of high quality. It is in their own interest to be alert for signs of block, and to intercept oncoming blocks whenever possible. Even so, periods of block do occur.

Background: Creativity and Blocks

Conventional wisdom holds that the issue of blocks to creativity has its underpinnings in the parent concept of creativity itself. In this study, an overview of twentieth century thought concerning the underlying construct of creativity is included to facilitate a discussion of what might get in its way. Thus, Chapter II begins with a review of major works in the general area of creativity.

Amidst the vast literature concerning human creativity, comparatively little has been published about blocks to its expression. Existing work, with few exceptions (Alamshah, 1972; Bailin, 1988; Crosson, 1982a, 1982b; Lipson & Perkins, 1990; Perkins, 1981; Weisberg, 1986), has been focused either on psychodynamic processes underlying blocks to creativity (Jung, 1933/1962; Maslow, 1968; May, 1975; Sass, 1984; Storr, 1988), or on educational assessment and training in the so-called skills of creativity (deBono, 1967/1987; Guilford, 1950; Myers & Ray, 1989; Parnes, 1967, 1981; Torrance, 1962; von Oech, 1983).

Although major theorists such as Freud, Jung, Skinner, and Maslow have influenced how society regards creativity, many other writers have approached creativity and related constructs from unique and often divergent perspectives.

Disparity of Theories and Definitions

Perhaps one reason for the widely diverging theories of creativity lies in people's natural tendency to define the term in idiosyncratic ways. Like the elusive concepts of happiness and love, creativity means different things to different people. Whatever it is taken to mean by the individual, societal attitudes towards it have fluctuated throughout history. In our own times creativity is usually highly valued, even revered. To label someone "creative" is to confer a compliment. Yet there have been periods when the opposite was meant (Allan, 1978), in part because of nonconforming personal habits and behaviours of some creatively gifted artists, composers, and scientists.

On the one hand, such varying perceptions and interpretations of what creativity is bring richness and breadth to society's understanding of the field. There is a potentially synergistic effect available when those who differ attempt to share insights and to integrate differing views.

On the other hand, progress toward definitive understandings is sometimes hampered by individuals'

failure to recognize the limitations inherent in their particular positions. One example of this is Aristotle's contention "that one could work out all the laws that govern the universe by pure thought: it was not necessary to check by observation" (Hawking, 1988, p. 15). Another example is Graham Wallas' (1926) somewhat controversial four-stage model of the creative process. It includes the stages of preparation, incubation, illumination, and verification, which Patrick (1935, 1937) found inapplicable to some of the poets and artists she studied.

Statement of the Problem

This study is focused on blocks to the working processes of women and men who create music through composing; their responses to items on a questionnaire are compared with the answers given by instrumental players of both sexes who re-create musical works through performance. A reading of the literature pertaining to related disciplines such as creative writing or painting suggests that many writers and artists experience blocks. However, with the exception of Crosson (1982a, 1982b), no studies exist which have clarified what creative people see as having caused their blocks. Moreover, the issue of blocks has not yet been addressed with regard to the population of professional musicians.

The present research problem then becomes, "What can be learned from musicians who have experienced blocks?"

More specifically, two problems are identified: One, "What do musicians say about the causes of their blocks which might contribute to counsellors' understanding of the experience of blocks to creative or re-creative working processes?" And, two: "Do experiences of frequency, duration, and total number of causes of blocks differ for women and men, or for creative and re-creative subjects?"

Purposes of the study

The purposes of the study are two-fold. First, the study is conducted in an attempt to identify and describe self-reported causes of blocks in creative and re-creative musicians of both sexes. Second, an attempt is made to ascertain whether systematic differences exist between members of the various groups. Accordingly, questions are posed concerning experiences of frequency and duration of blocks, as well as total number of causes of blocks, in a) the creative and re-creative groups, and in b) the women and men. Categories are formulated wherein related causes of block are grouped according to similarity of meaning. These collections of related causes are then used to facilitate comparison between the experiences of creatives and re-creatives, and between women and men.

Importance of the study

The preceding discussion illustrates that feeling blocked is an experience common to many people. Episodes of block can escalate or become compounded, to the point

where people seek counsellors' perspectives and assistance. Counsellors working with these clients require information about the phenomenon of block, and about how it is experienced by people who routinely surmount their blocks. Musicians comprise a group suited to investigation, because in their work they face daily challenges of creating (in the case of composers), and re-creating (in the case of performers), whether or not they may feel blocked.

The importance of this study lies in the need to expand knowledge concerning blocks to people's creative and re-creative working processes. This expanded information is required so that further theory, research, and counselling practice may be grounded where possible on what is known about "life as it is lived" (Giorgi, 1975). If a strong rationale for counselling blocked clients is to be built, then a foundation of systematic observation and inquiry is needed. From this base, work at devising and refining techniques for prevention of blocks and effective interventions to blocks can proceed.

Also of significance is the general issue of how the construct "blocks to creativity" relates to "working blocks." Although the present study evolved from a concern with this general issue, the focus of this work is on the first construct, blocks to creativity, as they appear in a group of professional concert musicians.

Definitions

If the study of problem solving seems frustrating at times, the study of creativity is downright maddening. We lack even a reliable definition of the phenomenon.

(Stevens-Long, 1984, p. 421)

An argument is presented above that might explain this lack of reliable definition. Insofar as most people have the capacity to be creative at some level, there will exist as many theories concerning this endowment as there are thinkers. Part of the confusion surrounding the word "creativity" may be attributable to its use as a general, catch-all term. MacKinnon defends this general use, calling creativity a "multi-faceted phenomenon" (1970, p. 19), appropriate for use in various situations. To lessen ambiguity and promote clarity, definitions for the creative context, person, process, and product are given here. These designations are derived from MacKinnon's 1970 article cited above. Inherent in the definitions relating to individuals is the precept taken from Maslow, "A person is both actuality and potentiality" (1968, p. 10, italics in original). Also provided are definitions for related terms relevant to the present work.

As mentioned earlier, a review of the literature in the next chapter provides background information on creativity in general, and on musical creativity in

particular. This information serves as a context within which the work on blocks in general, and blocks to creativity may be considered.

Creativity: An ability and a propensity for bringing into being some unique and "extraordinary end." The product must have relevance and significance "within a particular context" (Bailin, 1988, p. 85). (In rare cases, a creative end may only be considered creative posthumously. Such is the case when a product is ahead of its time, so that the creator's contemporaries fail initially to recognize the product's significance.)

Creative block: Any impediment or inhibiting factor which mediates against completion of a fully desired, unique and extraordinary end.

Working block: Any impediment or inhibiting factor which mediates against completion of tasks normally performed willingly by a worker.

Creative context: The creative context refers to the environmental conditions, both facilitative and constraining, which affect creative persons, their processes, and ultimately their products.

Creative person: A creative person is one whose propensity it is to devote care, persistence, passion, and intuition in the skillful exercise of a discipline wherein unique and extraordinary ends are brought into being.

Creative process: The creative process is the skillfully

purposeful manner in which persons invest the whole of their talent, training, values, feelings, thoughts, and conscious images to devise and revise extraordinary problems and their solutions. For some, this process is expanded by the use of primary and tertiary processes (see below).

Creative product: A creative product is "an extraordinary end ... significant within a particular context" (Bailin, 1988, p. 85) and to some degree unique. Recognition of its worth may be delayed.

Musically creative population: For purposes of this study, members of a musically creative population are those who are manifestly engaged in a musically creative process while at work. They are bringing into being unique and extraordinary musical products.

Musically re-creative population: For purposes of this study, members of a musically re-creative population are those who perform in ensemble in the re-creation of an existing musical work. Rather than bringing into being a new work, the re-creative person is interpreting or transmitting an existing musical product.

Primary process: This term refers to the means by which material normally residing in the unconscious or the preconscious becomes available to the conscious mind. It "prevails in dreams ... and psychoses" (Arieti, 1976, p. 12) and includes primitive thought processes often

regarded as alogical, irrational, or deviant.

Secondary process: Often considered the "other" process, it is distinguished from primary process by its logical manner. In psychoanalytic theory, its conscious, rational nature is seen as being derived from the ego, as opposed to the unconscious quality of the primary process which is said to operate in the id (Reber, 1985).

Tertiary process: For Silvano Arieti (1976), a "special combination of primary and secondary process mechanisms" whereby "primitive forms of cognition, generally confined to abnormal conditions or to unconscious processes, become innovating powers" (p. 12).

The Research Questions

The research questions for the study are derived from the two central problems, stated earlier. The first question addresses problem one, concerning the nature of blocks and their causes; the remaining six questions address problem two, concerning potential group or sex differences in the experience of blocks.

Research Question for Problem One

1. What are the nature and self-reported causes of blocks in creative and re-creative musicians of both sexes?

Research Questions for Problem Two

2. Does a relationship exist between creatives' and re-creatives' self-reported frequency of blocks?

3. Does a relationship exist between creatives' and re-creatives' self-reported duration of their longest block?
4. Does a difference exist between the number of self-reported causes of blocks cited and the duration of the longest block in creative and in re-creative musicians?
5. Does a relationship exist between women's and men's self-reported frequency of blocks?
6. Does a relationship exist between women's and men's self-reported duration of their longest block?
7. Does a difference exist between the number of self-reported causes of blocks cited and the duration of the longest block in women and men?

Delimitation and Scope of the Study

The focus of the study is on two major areas: the nature and self-reported causes of blocks; and the possible differences between experiences of frequency, duration, and total number of causes of blocks in creative and re-creative women and men.

As mentioned earlier, people may experience blocks to working processes in general. No attempt is made in this study to assess the "working blocks" per se which seem to occur in general working life. The focus of this investigation is on Canadian professional concert musicians of both sexes who either compose or perform

music for their livelihood. Nevertheless, results of this study may be of interest to people in other creative professions, and also to counsellors seeking an understanding of their clients' blocked experiences.

Responses gathered during the spring and summer of 1990 may reflect a historical limitation of this study; it is possible that world events in the meantime may have influenced subjects' perceptions of what causes their blocks. As well, many subjects are affected by administrative changes in the orchestras which give commissions to composers and which employ performers.

Organization of the Study

This chapter served to introduce the study by noting the widespread nature of blocks, and the resulting need of counsellors to understand and work with clients who feel blocked. A focus of this chapter was on the diversity of definitions for the parent construct of creativity. Next, variables and sample groups were identified along with the central problems of the study and the research questions that are intended to address them.

Chapter II begins with a rationale for selectively reviewing the literature on creativity, as a basis from which the literature on blocks may be presented. These two divisions are further subdivided into sections on general creativity, and creativity specifically pertaining to musicians. Each of the review's four sections is

organized around four theoretical divisions suggested by Woodman and Schoenfeldt (1990): the perspectives of personality, cognitive ability, social psychology, as well as their interactionist perspective. Included is a review of Crosson's (1982) study on the blocks experienced by female artists and writers, which partially inspired the present work.

Chapter III contains outlines of the methods and procedures used to conduct this two-part study. The sample and comparison groups are described, as is the instrument designed for the study. The qualitative portion of the study, including content analysis used to analyze anecdotal data, is discussed. The inter-rater reliability procedures used to verify the categories of causes of blocks are described, as is the training process of raters, modelled after the work of Porath (1990). The chapter concludes with a statement of the null hypotheses, and the statistical tests used to analyze these quantitative questions.

In Chapter IV, results of the qualitative question concerning the nature of blocks and who ascribes their blocks to what causes are presented, with the aid of tables and figures. In addition, results of the statistical tests used to analyze the quantitative questions are presented. Finally, two incidental findings related to the variables frequency of blocks, and to

creative and re-creative groups are presented.

Chapter V contains summaries of the qualitative, quantitative, and incidental findings of the study. These findings are discussed, conclusions drawn, and recommendations for future research made.

CHAPTER II
A REVIEW OF THE LITERATURE

We express our being by creating.

(May, 1975, p. viii)

Introduction

The literature review is presented in two sections, the first establishing a foundation upon which the second may be set. To begin, the vast literature concerning creativity is selectively reviewed in brief; then research specifically concerning creativity in musicians is reviewed. These two sections provide the context for the upcoming review of the literature on blocks. Next, the literature on blocks in general is reviewed. This section, together with the first section (on creativity in general) conveys information useful to consideration of a broader issue: the question of whether the construct of "blocks to creativity" may usefully be subsumed under (or replaced by) a construct of "working blocks."

Finally, the dearth of studies reported in the literature concerning blocks to musical creation is noted. The substantive hypotheses are then presented, together with statements of the purpose and rationale of the study.

Each of the review's two main sections (one concerns Creativity, the other, Blocks to Creativity) is subdivided into a general literature review on the topic, followed by a specific literature review concerning musicians.

Creativity

In this section, a selective review of work in the area of creativity itself is presented. More exhaustive treatments of this vast body of work, which are beyond the scope of the present study, may be found in Bloomberg (1973), Dellas and Gaier (1973), Taylor (1975), and Leland (1986).

General Literature on Creativity

For convenience, this section is organized into four categories, which represent Woodman and Schoenfeldt's (1989, 1990) theoretical divisions of creativity investigations. The categories comprise three major approaches to the study of creativity which have traditionally appeared in the literature, followed by a fourth approach postulated by these authors. Woodman and Schoenfeldt's approach outlines theoretical examinations of creativity from the perspectives of personality, cognitive ability, social psychology, as well as from an

interactionist perspective.

Out of the available possibilities, this approach was selected for three reasons. First, it provides a familiar frame of reference for readers already conversant with general psychological terms. Hence, use of this structure permits readers to consider concepts and investigators in relation to known theories. Second, it allows for continuity of organization in subsequent parts of this review. Third, in cases where more than one theoretical trend has influenced a work, that fact is emphasized within the present scheme.

Creativity from the perspective of personality psychology.

Can personality account for creative behaviour, in the sense that individuals who possess certain attributes are highly creative, whereas those lacking the same characteristics are not? Research into questions like this has enjoyed varying levels of popularity through the years (Helson & Mitchell, 1978). What has emerged, according to Woodman and Schoenfeldt (1990), are three subdivisions of inquiry within the framework of personality psychology.

First, a number of investigators (Taylor, 1975; Woodman, 1981) have attempted to explain creativity in terms of general personality theories. Woodman and Schoenfeldt note the "... great divergence across theories

... [which can] be traced, in part, to fundamental differences in perspective regarding the nature of human beings and their behavior ..." (1990, p. 12). Examples of differing traditions include a) the psychoanalytic, wherein Arieti, Freud, Jung, and Kubie regard the unconscious or preconscious as the source of creativity; and b) the humanistic, where a striving for self-actualization is thought by Maslow, May, Murray, and Rogers to explain creative impulses.

A second area of personality research mentioned by Woodman and Schoenfeldt (1990) is that which focuses on the traits of creative persons. Researchers who have studied the personality correlates of highly creative people include Barron (1969), Cattell and Butcher (1968), Drevdahl and Cattell (1958), Ghiselin (1952), Helson (1971), MacKinnon (1970), Roe (1953), and Weiss (1981). Barron and Harrington (1981) reviewed the literature, then summarized the following core traits of highly creative persons which emerged from their review:

... high valuation of esthetic qualities in experience, broad interests, attraction to complexity, high energy, independence of judgement, autonomy, intuition, self-confidence, ability to resolve or accommodate apparently opposite or conflicting traits in one's self concept, a firm sense of self concept, and

finally, a firm sense of self as "creative"

(Woodman & Schoenfeldt, 1990, p. 13)

Finally, Woodman and Schoenfeldt (1990) note a third major area of research within the psychology of personality. This is the relationship of creative behaviour to certain "specific personality dimensions" (p. 13), which may be contributing factors in creativity. They give as examples: locus of control (e.g., Bolen & Torrance, 1978); psychological femininity and masculinity (e.g., Barron & Harrington, 1981); and narcissism (Solomon, 1985). Other factors reported in the literature include: tolerance for ambiguity (Dacey, 1989; Getzels, 1975); bipolar affective disorder (Andreasen, 1978; Hershman & Lieb, 1988; Richards, Kinney, Lunde, Benet & Merzel, 1988); hypomania (Jamison, Gerner, Hammen, & Padesky, 1980); and the need for solitude (Storr, 1988).

Creativity from the perspective of cognitive psychology.

Following J.P. Guilford's famous address to the American Psychological Association in 1950, writers such as Gardner (1983/85, 1990), Koestler (1964), Osborn (1953), Parnes (1967, 1981), Perkins (1975, 1981), and Perkins and Salomon (1989) contributed explanations of creativity based on cognitive functions. Woodman and Schoenfeldt (1990) note that current research seems to have moved towards exploring relationships between

cognitive ability and creative behavior. One cognitive factor which has been investigated is field independence/dependence (Noppe & Gallagher, 1977; Spotts & Mackler, 1967). Another was the operation of divergent thinking or production, presented as part of Guilford's Structure-of-Intellect model of creative thinking (1967).

Also worthy of note are the concepts of lateral thinking (deBono, 1967/1987); and concern for discovery, a specialized cognitive attitude observed in art students by Getzels and Csikszentmihalyi (1976a, 1976b). The latter authors found fine artists distinguishable from graphic artists on the basis of their preferences for discovering, finding, or creating artistic problems, instead of solving problems imposed from external sources.

An explanation rooted in the theories of cognitive ability which is not dealt with in the Woodman and Schoenfeldt (1990) article concerns the notion that creativity is the product of genius. Accounts by famous creative people such as Mozart and Poincaré (Ghiselin, 1952) are sometimes interpreted to mean that sudden inspiration, inexplicable leaps of thought, or specially-endowed qualities are responsible for created products. These views, which, according to Weisberg (1986), resemble the ancient Greek beliefs in inspiration by the gods or Muses (see also Townsend, 1986, p. 50), are problematic because they imply that creative leaps come about without

people's conscious awareness.

The positions of writers like Weisberg (1986) and Bailin (1988) are strongly opposed to the genius explanation. These authors advocate an incremental position, which acknowledges the necessity for well developed skills, applied with diligence and dedication to a task, while building on previous efforts. Their writings have strongly influenced the choice of definitions for the terms presented in Chapter I.

A number of authors have recently published books (Bailin, 1988; Perkins, 1981; Weisberg, 1986) and articles (Dormen & Edidin, 1989; McAleer, 1989; Olivero, 1990) for nonspecialists in which the mysterious or mystical atmosphere surrounding issues of creativity is dispelled. These writers contend that creative thinking is essentially no different from ordinary thinking. They argue that careful observation of the creative process reveals a series of slow, gradually accumulated steps. According to Weisberg (1986), an appreciation of this incremental nature of the creative process should enhance its use. Acquisition of constructive work habits, finely-honed skills, and flexible attitudes are among the attributes promoted in this body of work.

This section concludes with the mention of a unique work in the area of cognitive psychology and psychobiology. Gardner (1983/1985) proposes a shift in

regard to the conceptualization of intelligence: rather than viewing it as a unitary, molar concept, he advocates a pluralist view. This stance makes possible the consideration of a broad spectrum of human capacities, or intelligences. Although discrete from one another, these intelligences are not seen by Gardner as existing in isolation. In fact, he suggests that most people, except brain-damaged individuals or idiot savants, embody a combination of capacities. The seven preliminary intelligences which Gardner proposes are as follows:

1. Linguistic intelligence involves a sensitivity to the meaning and use of words. This capacity seems to be widely found in human experience, but is best exemplified, according to Gardner, in poets.

2. Musical intelligence is characterized by a sensitivity to and ability to use sound, either in the performance or creation of musical works. This capacity is of central interest in the present work, and will be further examined in the section "Musical creativity from the perspective of cognitive psychology."

3. Logical-Mathematical intelligence covers such abilities as being able to manipulate numbers and work with logical concepts and steps in the reasoning process.

4. Spatial intelligence involves abilities like perceiving objects and forms, manipulating them, and also imagining their manipulation. The latter requirement

removes this capacity from a strictly visual domain.

5. Bodily-Kinesthetic intelligence represents a proprioceptive sense, or a collection of awarenesses concerning how one moves about.

6. Intrapersonal intelligence involves the ability to observe, manipulate, and symbolize one's feeling life.

7. Interpersonal intelligence represents the abilities used in relating to others: discriminating others' moods, understanding and cooperating with others, and even anticipating others' reactions and accurately sensing their intentions.

Creativity from the perspective of social psychology.

While the majority of research into creativity has focused on issues concerning the individual, some researchers have investigated the external, or social, environment of the person. Two who acknowledge the importance of both strands of inquiry are James (1890) and Gardner (1983/1985).

Others (Getzels & Jackson, 1961; Goyal, 1973; Klein, 1975; and Torrance, 1965) have researched the effects of specific environments or creative contexts--including educational settings--on individual creative output (Woodman & Schoenfeldt, 1990), as has Amabile (1983).

Creativity from an interactionist perspective.

It is evident from the literature thus far reviewed that the overwhelming majority of investigations into

creativity may be identified with a single dominant stream of psychological thought. Notable exceptions include the writings of Arieti (1976), Assagioli (1965/1976), and Gordon (1961), all of whom advocated a synthesis of at least two influential streams.

What Woodman and Schoenfeldt currently propose is "An interactionist model of creative behavior" (1990, p. 16). They claim that this model has the advantage of integrating the many viewpoints from which creativity is regarded, thereby facilitating an understanding of this complex construct.

These authors suggest that "antecedent conditions" [cf. Crosson (1982b)] such as "past reinforcement history" or "biographical variables" (p. 16) will interact with other factors such as personality traits, cognitive style, contextual influences like culture, and social influences. Woodman and Schoenfeldt suggest that, taken together, a consideration of these forces would provide a more comprehensive understanding of creativity in the life of the individual than has yet been the case.

A prominent writer on creativity from the social and environmental perspective is Amabile (1983), whose work was mentioned in the last section. She argued that the social and environmental perspectives with respect to blocks, or "undermining of creativity by socially imposed constraints" (1983, p. 370), are especially useful when

considered together with cognitive approaches and with the traditional approaches focusing on individual differences.

Several writers are identified with a transpersonal position, which may be conceptualized as going beyond the type of interactionist perspective proposed by Woodman and Schoenfeldt. Transpersonal writers include Clark (1988), Dallett (1986), Grof (1985, 1988), Harman and Rheingold (1984), Jung (1933/1962, 1967), Lukoff (1988), and Maslow (1968, 1971). Counsellors writing from this perspective include Roomy (1990) and Shuman (1989). For these writers, a broadly holistic approach to the study of creativity is essential, since creative behaviour is considered by them within a context of spiritual growth and development.

Specific Research Concerning Creativity in Musicians

The purpose of this section is to establish a context within which the literature on blocks in musicians may be placed. The focus in this review is on psychological issues rather than on strictly musical ones.

Musical creativity from the perspective of personality psychology.

As indicated in the first section of this review, considerable efforts have been directed towards explaining the phenomenon of general creativity in personality terms. Relatively little work, however, has been conducted specifically in the domain of musical creativity.

One early qualitative study by Csikszentmihalyi and Getzels (1973) stipulates some personality determinants of musicians in the broadest possible terms:

There are certain intrinsic requirements for most occupations that pre-select the type of person intending to perform within their given limits. For instance, a career in classical music not only excludes people who are tone-deaf ... but also those whose personality characteristics make them unwilling to concentrate, who lack self-discipline, or dislike sedentary activities.

(Davies, 1978, pp. 209-210)

Davies (1978) remarks on the dearth of empirical evidence concerning the psychology of musicians at the time of his writing, and notes that existing works deal with the mental life of musicians primarily from the perspectives of assessing their capabilities or discussing " ... affective and aesthetic responses ..." (p. 201).

Speculative observations regarding musicians' characteristics are to be found in anecdotal records such as those of composer Roger Sessions (in Ghiselin, 1952), and of Davies (1978). The latter author obtained interview material from members of a Scottish symphony orchestra during several voluntary tape-recorded group discussions. What emerged was a chidingly derogatory set

of descriptions, by members of various orchestral sections, of their colleagues in other sections:

Brass (as seen by strings)

Slightly oafish and uncouth

Heavy boozers

Empty vessels ("That's why they make the most noise")

Like to be in the limelight

Can't play quietly

Loud-mouthed and coarse

The "jokers" of the orchestra

Don't practise

Don't take things seriously

Strings (as seen by brass)

"They're like a flock of bloody sheep."

Precious

Oversensitive and touchy

Humourless

"They think they are God's gift to music."

Take themselves, and the music, very seriously

A bunch of weaklings, or "wets"

"They never go ski-ing, [sic] or climbing, or anything active in case they hurt their fingers."

(Davies, pp. 202-203)

These perceptions may seem to represent nothing more than bias or conjecture, but Davies "believes they ... are suggestive of questions which might be asked more

scientifically ... [and that they] have some general application" (p. 202).

Kemp (1981a, 1981b, 1982) did ask questions more scientifically. Using a three group design, he administered a combination of the High School Personality Questionnaire (Cattell & Cattell, 1969) and the 16PF (Cattell, Eber, & Tatsuoka, 1970) to British performing musicians. In an effort to identify profiles of personality traits in musicians, Kemp compared the results from performers in three developmentally distinct stages: children, youths between 18 and 25 years, and adult professionals. Age, sex, socio-economic status and educational level were treated as intervening variables.

Results pertinent to the present study are those of Kemp's adult group of professional musicians. The terms used were adapted from Cattell and Kline (1977). He found the following predominant characteristics: introversion, anxiety, pathemia (this relates to William James' tender-mindedness), independence, naturalness, subjectivity, and intelligence (1981a, p. 8).

Some highlights of Kemp's discussion are worth noting. To begin with, he believes the adults' high intelligence scores, taken together with students' frequent lack of attainment of university entrance requirements, indicate that "musicians choose to pursue music in preference to other academic studies because of a

strong motivation towards music rather than any lack of intellectual capacity (1981a, p. 11). It should be recalled that Kemp's subjects made their choices within the British system over a decade ago.

Of the three groups studied by Kemp, the professional musicians alone showed strong evidence of naturalness, in the sense of being "forthright, unpretentious, genuine, but socially clumsy [as opposed to] astute, polished, [and] socially aware" (1981a, p. 6). Kemp's insight with regard to naturalness is that, "its presence may indicate little other than the fact that the more astute (N) [on the 16PF] leave the music profession for more lucrative occupations!" (p. 11).

Further investigation was conducted by Kemp (1981b), in an effort to establish a profile of personality traits of composers. Using the 16PF (1968 Anglicised Edition), Kemp compared a) 36 male student composers, b) 50 male student non-composers, c) 28 male professional composers, d) 10 female professional composers, e) 41 male professional musicians not engaged in composing, and f) 42 female professional musicians not engaged in composing. Kemp subjected the raw scores of groups a, c, and d above to Multivariate Analysis, then contrasted them with respective scores from the corresponding non-composers. Comparison of the men's and women's results from this study was ruled out because of "the unfortunate imbalance

of numbers between the sexes" (1981b, p. 70).

As before, selected results pertinent to the current study are presented here. It is recommended that the reader interpret these results together with those from the previous study. Characteristics found by Kemp in male professional composers were independence, intelligence, and poor upbringing (actually a combination of dominance and weaker superego strength). Female professional composers were found to demonstrate introversion and independence.

Kemp concludes that the data support the existence of temperamental links between composers and performers. He further suggests that musical performance likely demands lower levels of creative temperament than does composition (1981b).

Kemp stresses the importance of introversion to the composer, particularly when considered in combination with pathemia (sensitivity and imagination) found in the professional musicians (1981a) and in the student group (1981b). He states,

The broad concept of introversion as defined by Cattell, especially when it is linked with pathemia and subjectivity, must not be viewed as a timid withdrawal from social involvement. It is highly indicative of strength of the inner person and his colourful, imaginative and

symbolic thought processes. The same point was made by Drevdahl and Cattell (1958) in referring to the creative as bold introverts. (1981b, p.72)

While all groups tested by Kemp displayed similar trends, values of composers' scores (both male and female) far exceeded those of student composers. Kemp suggests that the extreme scores may partially account for the fact that so few musicians eventually turn to composing. An alternative explanation could be that the activities of composing, having one's work performed, and interacting with other composers, might in themselves serve to reinforce certain personality characteristics.

In a third paper, Kemp outlines sex differences he tentatively identified, again using the HSPQ and 16PF with three developmentally-distinct groups of British musicians. He found a "progressive erosion of sex-differences in musicians on specific personality dimensions" (1982, p. 54). Accordingly, Kemp concluded that psychological androgyny is an attribute which may best equip most performing musicians for successful careers in music.

Musical creativity from the perspective of cognitive psychology.

Few writers have approached issues of musical creativity from the standpoint of cognitive psychology. One exception is Gardner (1983/1985), who posits the

existence of a "Musical Intelligence" (p. 99) distinct from other forms of intelligence, such as mathematical or linguistic. Gardner's theory is based on a review of current thought in the fields of music, psychology, psychobiology, linguistics, and mathematics.

Evidence from studies with brain-damaged individuals supports Gardner's claim for the existence of a separate and distinguishable musical intelligence. One line of inquiry he describes is the work of Diana Deutsch, on the perception of music. "Deutsch has shown that ... the mechanisms by which pitch is apprehended and stored are different from the mechanisms that process other sounds, particularly those of language" (Gardner, 1985, p. 117).

Furthermore, work with people who have suffered strokes and other traumas indicates that,

Whereas linguistic abilities are lateralized almost exclusively to the left hemisphere in normal right-handed individuals, the majority of musical capacities, including the central capacity of sensitivity to pitch, are localized in most normal individuals in the right hemisphere. Thus, injury to the right frontal and temporal lobes causes pronounced difficulties in discriminating tones and in reproducing them correctly

(Gardner, 1983/1985, p. 118)

Gardner also observes that extensive damage to the right hemisphere of the brain may leave a person able to write about or teach music, yet unable to compose. This raises questions yet to be addressed about the true role of feeling, or affect, in the compositional process.

There does seem to be an element of confusion in Gardner's analysis, with respect to the issue of feeling. Others (Bennett, 1976; Cass, 1976) are less inclined to separate affective from cognitive influences. Bennett cites an illuminating comment by the composer Hindemith, "namely that composers apparently compose music representing their memories of images and feelings--not the feelings and images per se" (p. 10, italics in original).

Another observation concerning the cognitions of composers comes from Perkins (1981). He suggests that composers, like makers of other creative products, strive to produce the best possible result given the circumstances. Despite community values which seem to dictate that perfectionism is the only acceptable standard in the arts, composers cannot "maximize" (p. 158). In so saying, Perkins corroborates interview material from composer Alfred Reed (in Moss, 1978, p. 34) and findings from the Getzels and Csikszentmihalyi study (1976) mentioned earlier. The consensus here is that composers have to decide when enough alterations have been made to a

composition, and make a judgement call about where to stop.

The contemporary American composer Roger Sessions identifies a salient characteristic of the composer as that of having "tones in his head" (cited in Gardner, 1985, p. 101). By this is meant that the raw material of music--be it single tones, chords, phrases, or rhythms--is an ongoing presence in the mental life of the composer. Instead of the linguistic or visual material common to many thinking styles, aural material prevails for the composer. This veritable "thinking in sound" (Kemp, personal communication, July 18, 1990;) may at times be the "stuff" (Perkins, 1981, p. 246) out of which musical compositions are made.

A similar observation was made by Sabaneev (1928), who reported that composers inhabit a tonal world, analogous to the world of dreams. He claimed that efforts to induce tonal sequences do not work, but suggested that engaging in improvisation may be helpful, an idea borne out later by others (Graf, 1947; Perkins, 1981; Pasler, 1986). According to Sabaneev, reason is also used, in order to link various musical elements.

Mortimer Cass suggests a cognitive sequence that commonly occurs for composers: "an acoustic idea [is received] from an external source (often from experimentation at the keyboard), in the shape of a phrase

that [they] perceive as lending itself to ... compositional purposes" (Arieti, 1976, p. 239). Cass thinks composers then "objectify" the idea and allow it to take on the status of a construct. Then, he suggests, the construct virtually asks, "What next?" Finding a suitable answer represents the major task for the composer. Cass claims the choices are made "subliminally" and are the result of composers' "individuality," involving their "previous experience and personal aesthetic preferences" (Arieti, 1976, p. 240). Some similarities exist between Cass's version and that reported in the section on interactionist perspectives (Bennett, 1976).

Systematic efforts to describe the compositional process are rarely reported in the literature. No works were located which frame the process exclusively in cognitive terms.

Musical creativity from the perspective of social psychology.

Social psychology per se has not engendered research into the area of musical creativity. Yet the notion of the musician as someone who attempts to relate in musical terms to an audience may be understood in social terms. Contemporary composer Roger Reynolds (1987) wrote, "... the composer's ... [or] maker's goal ... is communication to his listener of content that may be novel and valued but that depends heavily upon a preexistent body of shared

responses" (p. 26, *italics in original*). In other words, familiarity with certain musical conventions will influence one's ability to receive or value a composition.

Others (Davies, 1978; Kemp, personal communication, July 18, 1990), stress the likelihood of *miscommunication* on the grounds that cultural and other differences can preclude appreciation across musical styles.

Musical creativity from an interactionist perspective.

No studies have yet been reported which exemplify this category of Woodman and Schoenfeldt's (1990). However, the spirit of the interactionist perspective is reflected in works by Bennett (1976), Mojola (1989), Simonton (1984), and Townsend (1986). Simonton found that stressors in composers' lives were related to the originality of melodies they composed. Therefore, he suggests, the composer's biography and historical *zeitgeist* ought to be considered when assessing the value of compositions.

One ethnographic study is reported in the literature, in which eight male concert composers were interviewed (Bennett, 1976).

Bennett's composer subjects initially sought "what may be called the germinal idea, variously termed the 'germ,' the 'kernel,' the 'inspiration,' or the 'idea'" (1976, p. 7). This germinal idea might occur in any form:

a brief theme, a series of chords, or an overall impression of the work. A recalled germinal idea from the first composition may have derived from the "cognitive map" (p. 7) laid down during early learning experiences with an instrument.

Bennett states that his subjects reported retaining the truly potent germinal ideas, possibly in association with a mental sketch made of the idea. Later, the sketch would be expanded into a first draft, which may or may not lead back to the creating of additional germinal ideas. If, after returning to the work, it is felt to merit completion, it could then be subjected to processes of elaboration and refinement. Copying out the final draft is a clerical task often accomplished when conditions for composing itself are less than ideal. Although occasionally revisions are made after a work has been performed, one subject of Bennett's wrote that works of music are records of one's compositional development at a moment in time and should basically remain unchanged (1976).

As to conducive emotional conditions for composition, Bennett's findings bear out those of Simonton (1984). He found that "six out of eight cases fell along the dimension of tranquility-security-relaxation" (p. 10). Moreover, five of the eight participants said they required solitude; two people emphasized their need for

silence. Four expressed the need to be free of disruptions and distractions. A few mentioned their need for unstructured time when they might rest, meditate, or otherwise have opportunities to access altered states of consciousness. This tendency reflects numerous observations from the literature on creativity in general (Arieti, 1976; Assagioli, 1965/1976; Grof, 1985; Shuman, 1989; Storr, 1988).

Blocks

The literature on blocks is presented in two sections: works on blocks to creativity in general are reviewed first, then the literature specifically concerning blocks to musical creativity is reviewed.

General Literature on Blocks to Creativity

Forces which get in the way of the expression of creativity are described widely in the literature. With few exceptions, (Barrios & Singer, 1981; Boice, 1982a, 1982b, 1983a, 1983b; Matthews, 1986a) most are theoretical in nature. The literature presented in the following sections is that which addresses issues of creativity as they are affected by blocks.

Blocks to creativity from the perspective of personality psychology.

If on the one hand, creativity is regarded as "the highest expression of giftedness" (Clark, 1988, p. 45) or as synonymous with self-actualizing behaviour (Maslow,

1971), then anything which interferes with it might be construed as detrimental. Seemingly obvious goals for counsellors would then include helping clients work towards reducing or eliminating problems, and towards restoring conditions which favour creative activity.

But if on the other hand, creative processes are seen to correspond with the individuation process (Jung, 1967; Singer, 1973; Storr, 1988), then counsellors' goals must be more broad, and their methods more subtle. Instead of encouraging clients to overcome or eliminate blocks, counsellors can assist clients to recognize difficulties as informative--and potentially transformative--aspects of their lives. Where conflicts persist, work may be undertaken to help clients recognize opposing intrapsychic elements at play. Efforts may then be directed towards finding suitable means of permitting outward expression of each opposing element. This may best be accomplished through exercising the client's usual creative discipline; otherwise, dialectic exercises such as Jung's "Active Imagination" (Singer, 1973) or other therapeutic interventions which tap the unconscious may be utilized.

An early contributor to the literature on blocks was Abraham Maslow (1962), who advocated learning to get in touch with, or at least becoming less afraid of, one's unconscious life, in order to release one's creative potential. Speaking to U.S. Army Engineers at a 1957

seminar, Maslow stressed the severe limitation to creativity that a compulsive-obsessive neurosis imposes. He described people who, "in psychodynamic terms [are] 'sharply split' ... between what they know about themselves, and what's concealed from themselves, what is unconscious or repressed" (1962, p. 95). Maslow contends that "with the lid taken off, with the controls taken off, the repressions and defenses taken off" (p. 95), manifestations of creativity will increase. He states that, difficult though it may be to prove, psychotherapy of all kinds "may normally be expected to release creativeness which did not appear before the psychotherapy took place" (p. 95).

A number of investigators have researched the question of anxiety in relation to creativity. Matthews (1986a) tested the effects of anxiety on creativity test performance of 80 male students. He found that the O factor (worry) of the 16PF (Cattell, Eber, & Tatsuoka, 1970) correlated negatively with scores on creativity tests, but also noted that a "unique variance of the other anxiety primary (Q4) (tense, driven) was associated with higher levels of performance" (p. 385). It is important to note that test findings such as these, unlike those of Kemp (1981a, 1981b, 1982a), may have little bearing on actual creative performance. Others who report negative correlations between anxiety and creativity are Okebukola

(1986) and Saxena and Kumar (1985).

Several writers (Andreasen, 1978; Andreasen & Canter, 1974; Jamison, Gerner, Hammen, & Padesky, 1980) address the issue of genetic predisposition to Bipolar Affective Disorder amongst creatives in clinical populations. Bipolar Affective Disorder is defined by Sarwer-Foner (1988) as "severe depressive states, associated at varying times with excited states" (p. 55). A tentative finding of Andreasen's follows:

Whatever type of diagnostic system is used, the creative person whose talent is expressed through artistic or scientific achievements, especially when notable recognition is attained, seems to have more psychopathology than would be expected from population norms.... The families of creative persons may have a higher prevalence both of creativity and of psychiatric illness than occurs in the general population, and ... this pattern may be explained in part on the basis of genetic factors. (p. 119)

To whatever extent these findings may be generalized, they have implications for the study of blocks. Although Jamison et al.'s (1980) subjects tended to report positive perceptions of their manic and hypomanic phases, it may be assumed that extreme effects of Bipolar Affective Disorder would preclude creative production. Moreover, account

must be taken of those who never create anything, yet who might do so were it not for their illness.

Hershman and Lieb (1988) claim that periods of block and of inspiration are not merely parallels to the phases of depression and mania; rather, the blocks are actually manifestations of the illness. They draw the link between blocks and depression as follows:

In deep depression, intellectual processes become impaired.... Memory, the capacity to solve problems and to generate ideas ... the ability to think ... become minimal.... The depressive feels lethargic, tires quickly, and needs more sleep.... Motivation for work may disappear completely. The depressive loses his capacity for enjoyment, including his pleasure in work, and eventually nothing interests him. He becomes overly critical of what he is doing and may abandon it as worthless or may destroy it. Depression often brings despair [and the] conviction that [one's] talent is illusory or that it is gone forever. (1988, p. 13)

A common theme in psychoanalytic writings is the adverse effect of neurosis on creativity. Gottschalk (1981) states that neuroses interfere with individuals' creative output and "usually block high-level creative performance" (p. 217).

Kubie (1967) concurs, and regards the notion that sickness engenders creativity as a "culturally noxious assumption ... devoid of truth" (p. 36). Further, Kubie has said that the creative impulse is resilient, and is not likely to be adversely influenced by psychotherapeutic efforts to work through a neurosis, as some people fear. Kubie is another who acknowledged that barren periods in the life of the creative may retrospectively be viewed as resourceful times.

Blocks to creativity from the perspective of cognitive psychology.

Khatami (1978) considered that the cognitive area is the source of people's severest blocks. This view is widely adhered to, and has resulted in a variety of interventions recommended for use with blocks. Using a Westernized version of Morita Therapy (Morita, 1928/1974), Ishiyama (1990) identifies seven "attitudinal blocks to action" (p. 567). He defines the term "attitudinal block ... as the perceptions, thinking (expectations, logic, values, priorities, assumptions, and schemata), and other covert and overt client-initiated activities that prevent clients from implementing desirable action" (p. 566-567).

An example of a block seen from the Morita perspective is, "Neglect of Behavioural Self-Control and Responsibility" (Ishiyama, p. 568). Since Morita therapists work from the premise that action, but not

emotion, may be directly controlled, encouraging action-taking by clients is a high priority. Rather than unwittingly having clients control their emotions, the Morita therapist may intervene by asking something like,

... Is the client accepting feelings as they come and go, and at the same time is he or she taking action for a practical and constructive purpose in spite of an adverse affect? This introduces a shift in problem conceptualization ... from affective self-control toward behavioral self-control and the unconditional acknowledgment of covert experiences. (p. 569)

A number of works address the issue of writers' block. Minninger (1977) reports using a "redecision process" (p. 71) taken from Goulding and Goulding (1976) in her writing workshops. Based on Transactional Analysis, her work advocates a "Reteaching" process in which the client sets aside Critical Parents in favour of the Nurturing Parent, Adult, and Child needed during creativity.

Specific behavioural techniques for use with writer's block are recommended by Klauser (1987), by Boice (1982a, 1982b, 1983a, 1983b), and by Boice and Jones (1984).

A frequently mentioned block which seems to underlie many hindrances to the creative process is that of making rapid judgments (Khatami, 1978, p. 127). Known also as

"perceptual set, mental set, or functional fixity" (Davis, 1986, p. 9), this tendency is said to interfere with the trait known as tolerance of ambiguity (Dacey, 1989; Herzberg, 1987; Rogers, 1962). Accumulated evidence strongly suggests that the ability to be open to experience (Rogers, 1962) and to the world, especially in the face of ambiguous situations is a core requirement for creativity (Dacey, 1989).

A famous experiment which demonstrated the difficulty of breaking cognitive, or perceptual set, was performed by Luchins (1942). He presented subjects with a series of complex problems involving amounts of water in jars. Later, when given easier tasks, many subjects continued to pursue complex methods of solution, instead of switching to a simpler approach. The same task was used by Hansen, Malloy, Gordon, Rose, and Fleming (1984). These researchers found that using a mixture of nitrous oxide and oxygen encouraged subjects to change their mental set, thereby facilitating new approaches to the Luchins water jar problems. Hansen et al. suggest that, in general, creative blocks might be more easily resolved if subjects were to utilize trance states produced by nitrous oxide and oxygen. These investigators claim support from comparable findings in the work of Barrios and Singer (1981).

Davé (1979) used hypnosis in a laboratory setting to

induce dreams with 24 creatively blocked subjects. He administered, by random assignment, a treatment using hypnotic dreams. Davé found these subjects were significantly more able to surmount their blocks than were control subjects who received a rational-cognitive treatment. These data are interesting in light of work with performing musicians by Steptoe (1989), which is reviewed in the next section.

Support for Davé's study may be found in Hansen et al. (1984) and in the work of Barrios and Singer (1981). These investigators randomly assigned 48 volunteer subjects who presented with problems of creative block to "one of four groups: Waking Imagery, Hypnotic Dream, Rational Discussion, or Control" (p. 93). They found the first two conditions to be the most effective in ending the clients' blocks. This conclusion was strengthened in light of comparisons between the treatment conditions.

A study in the area of blocks to creativity was conducted by Crosson (1982a, 1982b). Crosson focused on "the self-reported causes of creative blocks among a sample of manifestly creative women" (1982b, p. 259). Crosson (1982a) found that 211 of 271 women surveyed said they had at least one block. She used Content Analysis to assign the women's data to seven categories of block:

- 1) None. People reported having no blocks.
- 2) Jobs. Subjects cited outside pressures of various

types, including housework, jobs, child-care, mobility of spouse, holiday times with children at home, and chores.

3) Emotion. People mentioned stress, anxiety, depression, fear of criticism or of failure as reasons for their blocks.

4) Renewal. Subjects cited diverse challenges directly connected with the creative process or with the need for self-renewal.

5) Self-Discipline. Crosson assigned to category 5 subjects who reported a lack of self-discipline in their professional work habits.

6) No Cause. Data from people who did report blocks, but gave no cause for them, comprise this category.

7) Physical. People who saw illness, fatigue, or any other physical problem as the cause of their blocks were assigned to category 7.

After sorting the various types of block into the above categories, Crosson used one-way analysis of variance and Scheffé t -tests to determine the degree of association between subjects' mean ages, and the different categories of block.

Content analysis revealed statistically significant age differences between women who reported having certain categories of block. For example, older women reported having No Blocks or Physical blocks more often than younger women who reported Emotional problems; and older

women reported blocks which indicated a need for Renewal, more often than younger women who reported blocks in the areas of Emotion or Self-Discipline.

This section on cognitive approaches to blocks in general concludes with mention of a recent work by Lipson and Perkins (1990). These authors present a series of explanations which they term "Force Theory" (p. 61) for the phenomenon of blocks or "counterintentional behavior" (p. 22). They use the term "force" to cover constructs such as drives and emotions which are usually out of conscious awareness. The focus of the book is on the need for recognizing multiple levels ("first-order," "second-order" (p. 120), and so on) of forces which may act together to precipitate blocks. They suggest working to increase self-knowledge with the aid of reasoned insight, facilitated by a metaphor of one's own "personal force landscape" (p. 183). Constructing such a psychological "map" of forces is recommended to help the individual recognize, understand, and overcome blocks.

Specific Research Concerning Blocks to Creativity in Musicians

The area of blocks to creativity as it pertains specifically to musicians has received little attention to date from researchers. Although no investigations have been reported which address the experience of block in composers, a limited number of publications do mention

performers' experience of blocks. As stated in the definition section of Chapter I, the creative music-making activities (cf. Kemp, 1981b) of composers differ somewhat from the re-creative music-making of performers.

American composer Roger Rideout (1987) distinguishes between composers and performers, based on the work they do. He states, "... music is not a creative art but a re-creative one The ... musician performs in ensemble requiring consensus in the re-creation of the work. By definition there is a claim only to interpretation" (pp. 17-18, italics in original). He is joined in this view by Reubart (1985) and by performers such as pianist Alexis Weissenberg, who remarked in an interview, "... we are expected to be, finally, absolutely objective--a recreator" (Jacobson, 1974, p. 295).

The significance of blocks with respect to the interpreter's role is illustrated by the following comment from singer Dame Janet Baker: "The real difficulties are interpreting music, not the sheer technical problems. The interpretive problems come from the limitations of one's self as a person--that's the most terrifying thing. This bothers me the most" (Jacobson, 1974, p. 11).

In the literature, the obstacle to musical performance--whether thought of in re-creative or interpretive terms--which has received attention is performance anxiety (Green & Gallwey, 1986; Judy, 1990;

Reubart, 1985; Ristad, 1982; Steptoe, 1989).

Of the four works, only the latter represents a research study. Steptoe conducted a survey of orchestral musicians in Britain in an attempt to identify perceived stressful aspects of their careers. He compared the responses of student and professional musicians (cf. Kemp, 1981b) to questionnaire items on sources of stress. In order of importance, the most frequently cited sources of stress by members of Steptoe's professional sample are:

1. Separation from family
2. Irregular hours
3. Monotony of rehearsals
4. Travelling
5. Professional competition with colleagues;
Uncertainty about regular employment
6. Poor financial rewards
7. Back-stabbing among colleagues

Steptoe further analyzed results of the professional musicians, and discovered a "positive association between stage fright and perceptions of career stress" (p. 9).

The nature of this association was not determined; Steptoe hypothesizes that the underlying dimension of neuroticism may relate to both variables. This interpretation is at odds with that of Willings (1980), who discusses the heightened sensitivity to the reactions of others which appears in the creatively gifted.

As may be seen from the preceding list, there is little resemblance between the concerns of Steptoe's British subjects and those of Crosson's American subjects. The differing circumstances of the two groups are discussed in Chapter V.

A renowned pianist whose working conditions probably resemble those of Steptoe's subjects is Alexis Weissenberg. Speaking on the advantage of having fame, he remarked,

... it allows you to have the sufficient energy to stand the life that goes with performing. The joy of performing and playing and sharing with other people is so overpowering that hotels and traveling and airports and mostly being alone can be tolerated.

(Jacobson, 1974, p. 300, italics in original)

Perhaps a distinction worth noting is that, unlike the subjects in Steptoe's investigation or in the present study, Weissenberg is a solo performer.

Statement of Purpose and Rationale

Previous researchers have identified some of the factors which artists and writers say can block or impede production of their creative works. This study represents an exploration of the nature and self-reported causes of blocks to the production of musical work in a population of concert composers and performers.

In addition, because this study represents a small part of a broader issue in which "blocks to creativity" may be subsumed under "working blocks," the question of whether differences might exist between re-creative and creative musicians' experiences of blocks is explored. Aspects of experience which are investigated include both groups' frequency of blocks, and duration of their longest blocks. As well, the possibility that differences may exist between women's and men's frequency and duration of longest blocks is investigated.

Crosson (1982a, 1982b) discovered women artists and writers in her sample who cited more than one block each. Because she did not explore the effects which multiple blocks might have on subjects, this area remains uninvestigated. Research questions ought to be raised and tested concerning the experience of having more than one block.

Accordingly, some of the hypotheses stated below reflect the concern that multiple blocks might affect the length of time a person feels blocked. In this study, no distinction is made between multiple blocks which are reported as occurring consecutively and those which occur concurrently.

Substantive Hypotheses

1. (a) Categories of self-reported causes of block in female re-creative and creative musicians

will resemble those cited by Crosson's (1982a) subjects. An expected additional category for both sexes will involve performance-related injuries.

(b) Categories of self-reported causes of block in male re-creative and creative musicians will reflect a greater emphasis on injuries, and less emphasis on caregiving-related distractions than in the female sample.

2. An association will be found between the frequency of blocks cited and creative/re-creative group membership.
3. An association will be found between the self-reported duration of the longest block cited and creative/re-creative group membership.
4. The total number of causes of blocks mentioned by creatives and re-creatives experiencing varying durations of their longest blocks will differ.
5. An association will be found to exist between the frequency of blocks cited and sex.
6. An association will be found to exist between the duration of the longest block cited and sex.
7. The total number of causes of blocks mentioned by women and men experiencing varying durations of their longest blocks will differ.

In the next chapter, the sample is described in detail, and the procedures and methodology used to conduct the study are presented.

CHAPTER III

METHODOLOGY

In this chapter the methods and procedures which have been used throughout the study are presented. First, the sample and comparison populations are described. Next, the survey instrument designed for use with these groups is presented. Finally, the procedures used for conducting the study, training the raters, and analyzing the data are explained.

Sample

Professional concert musicians who are actively engaged in music-making as a career are of interest in this study. The sample population consists of composers; the comparison group is made up of orchestral players.

Professional musicians were chosen in preference to students or amateurs because of the great personal investment the former make in their careers. Any experiences of block reported by professionals may be expected to represent something more meaningful than the mere laying aside of a hobby. It was felt, therefore, that their participation in this study would lend

authenticity to its results.

Criteria of Selection

Creative Musicians

For creative musicians, the following criteria applied: All have had compositions adjudicated by their peers, leading to invitational membership in a national registry of concert composers. Moreover, these subjects regard composing as their primary work, although composers who perform to financially subsidize their composing were also included here.

Re-creative Musicians

For re-creatives, the criteria of selection were as follows: First, the orchestral players all maintain a comparable standard of expertise, evidenced by their continuing employment in a professional orchestra. Second, their primary vocation is the performing of concert music. None of the re-creative musicians who chose to participate said they engaged in the composing of music.

Selection Procedures

Letters briefly describing the purpose of the study and inviting musicians' participation were sent to the directors of the composers' registry (see Appendices AA, AB, and B). Professional composers and the conductors of two professional orchestras in Canada were also contacted by mail (see Appendix C).

Sample Population: Creatives

One hundred names were randomly selected from the membership list of the composers' registry mentioned above; each was sent a survey questionnaire. Names of participants from nine of the ten Canadian provinces were drawn from the English-language portion of the registry's membership list. In an effort to increase a potentially low proportion of women to men in the sample, it was decided to also send questionnaires to the nine remaining women members not originally drawn from the list.

Comparison Population: Re-creatives

Within one week of mailing, public relations staff of both orchestras were contacted by telephone. Following acceptance of the invitation by one personnel manager on his musicians' behalf, orchestra members were approached en masse by the author with a verbal invitation to volunteer for the study.

Description of Participants

Next, the numbers and characteristics of the volunteer participants in this study are described.

Sample Population: Creatives

Creative musicians who participated in this study were comprised of 10 female and 25 male adult concert composers (35 in total), presently living and working in Canada. Together the creative subjects represent 61.40 percent of the total sample of 57 subjects who reported

blocks (see Table 1). It is considered that members of this sample population are engaged in finding, formulating, or discovering musical problems (Getzels & Csikszentmihalyi, 1976a, 1976b; Grudin, 1990).

Comparison Population: Re-creatives

In the comparison group there were 8 female and 14 male professional symphony players (22 in total), or 38.60 percent of the total sample surveyed (see Table 1).

Table 1

Numbers and Percentages of Participants, by Group and by Sex

Gender	Creatives		Re-creatives		Totals	
	No.	%	No.	%	No.	%
Female	10	17.54	8	14.04	18	31.58
Male	25	43.86	14	24.56	39	68.42
Totals	35	61.40	22	38.60	57	100.00

All were employed with a symphony orchestra in a major Canadian city. The re-creative musicians were chosen to be a comparison group because the nature of their musical task is to re-create (Reubart, 1985;

Rideout, 1987) or transmit musical compositions through performance (Fraser, 1990). That is, these musicians usually realize or carry out the conductor's interpretation of existing musical compositions. Of particular interest in this study is whether members of this group may experience different frequencies, durations, causes, or total numbers of blocks than do members of the creative group.

Level of Creativity

The professional musicians in this sample were theoretically divided into two groups because their respective musical tasks are different. One criterion used to make the division is their membership in musically creative or re-creative organizations, as described above.

The other criterion used is the level of creativity involved in composing music versus playing it. The assumption is that composers consider their work as demanding a high level of creativity, in comparison with orchestral musicians. The item, "D," which measures this factor appears on page one of the protocol (see Appendix F). This item asks, "How much creativity do you believe your work demands? ('Creativity' is assumed to involve the making of unique, high quality products.)" A Likert-type scale was used for this item, with 1.0 standing for "none at all" and 5.0 standing for "a great deal."

For the entire sample, answers to this item ranged

from 2.0 to 5.0. The mean level of creativity reported by all subjects was 4.29, the mode was 5.0, and the standard deviation was .857.

For the creatives alone, the responses ranged from 4.0 to 5.0, with the mean level of creativity reported as 4.79, SD = .276. These results are higher than those reported by the re-creatives alone, whose responses ranged from 2.0 to 5.0, and whose mean level of creativity reported was 3.49, SD = .870.

Number of Respondents

Creative Subjects

Of 109 questionnaires mailed to composers, 53 (or 48.62 percent) were returned (see Table 2). Ten of these were from people who did not include the consent form, or did not want to participate, or who said they were no longer actively composing. The remaining 43 (or 39.45 percent) agreed to participate. Following the removal of a further eight subjects who said they experienced no blocks, the final number of creative participants was 35. This number represents 32.11 percent of the original 109 composers to whom questionnaires were sent.

Re-creative Subjects

Of 75 questionnaires distributed to orchestral players, 25 (or 33.33 percent) were returned (see Table 2). The figure for musicians willing to participate was 23 (or 30.66 percent). After removal of one person who

reported no blocks, the final number of re-creative participants was 22. This number represents 29.33 percent of the original 75 orchestral players who received questionnaires. The separate and combined figures for the total number of respondents are shown in Table 2.

Table 2

Total Numbers and Percentages of Questionnaires Returned,
by Group

Condition	Creatives		Re-creatives		Totals	
	No.	%	No.	%	No.	%
Sent	109		75		184	
Returned	53	48.62	25	33.33	78	42.39
Unusable	10	9.17	2	2.66	12	6.52
Usable	43	39.45	23	30.66	66	35.87
Participating	35	32.11	22	29.33	57	30.98

Age Level of the Total Sample

Participants' ages ranged from the second decade through the eighth decade, with the mean, mode, and median ages of the total sample all occurring in the fourth decade. There appears to be a difference between the ages

of creatives and re-creatives in this study. The mean age of the creatives fell within the mid-forties, somewhat older than the mean age of the re-creatives, which fell within the mid-thirties. Very few, or 3.5 percent of subjects, said they were in their twenties; whereas 12.4 percent reported being in their sixties, seventies, or eighties (see Table 3).

Table 3

Age (in Decades) of Participants, by Group

Age	Creatives	Re-creatives	Totals	%
20 - 29	-	2	2	3.5
30 - 39	9	6	15	26.3
40 - 49	11	13	24	42.1
50 - 59	8	1	9	15.8
60 - 69	5	-	5	8.8
70 - 79	1	-	1	1.8
80 & over	1	-	1	1.8
TOTALS	35	22	57	100.0

Ethnic Background

At least 84.2 percent of the entire sample was Caucasian. Although the remaining 15.8 percent said they

were Native North Americans, it was unfortunately not possible to interpret these responses. It appears the term was ambiguous to some people who, whatever their ethnic background, were born in North America.

Education and Experience

The total sample consisted of people with widely varying levels of education and experience, although in each case the distribution was skewed negatively. With respect to Educational Level, 3.5 percent of the total sample said they had High School Graduation or less; 26.3 percent (the mode) reported having earned a Master's Degree; and 12.3 percent said they had earned Doctoral degrees, some honorary.

The most frequently reported educational level for creatives alone fell within the "Master's Degree" category. For the re-creatives alone it lay within the "B.A. Degree" category.

The Years of Experience as a professional musician ranged from three years to sixty-five years. The mean and mode both fell into the "10 to 20 year" bracket, with 45.6 percent of the total sample answering that they had worked that long. Almost as many people, 43.9 percent, said they had worked over 20 years at their musical pursuit.

Levels of experience between the two groups in the total sample were very similar. The only difference was in the experience category labelled "More than 20 years."

Overall, 25 subjects, or 43.86 percent of the total sample, fell into this category.

For creatives in the "More than 20 years" bracket, the mean number of years of experience was 36.0; for re-creatives, the mean was 26.0 years.

Weekly Hours Spent at Primary Musical Task

Time spent each week working at the primary musical task (creating or re-creating) ranged from three hours to 60 hours for the total sample. The mean was 26.6 hours per week, the mode was 30.0 hours per week; SD = 13.75.

For the creatives alone, the mean reported hours spent per week were 20.79; for re-creatives, the mean number of hours spent per week were 34.71. Re-creative group members were likely to work, on average, 13.92 more hours per week at their primary musical pursuit than were the creatives.

Because seven out of a possible 57 subjects, or 12.28 percent of the total sample, did not answer this question, it should be noted that the true mean amounts of time spent by each group may vary somewhat from those quoted.

The Measure

Because this is an exploratory study, in which phenomena not previously researched are being investigated, a new measure was needed. Therefore a self-report survey questionnaire, inspired by Crosson's (1982a) work was designed by the researcher for use in this

investigation. It consists of several items accompanied by either a Likert-type seven-point scale or a list of categories from which to choose, and further questions requiring anecdotal responses. It was intended to provide a concise method of obtaining both qualitative and quantitative information, which could later be analysed. As well, it was hoped that the brief and relatively non-intrusive nature of the questionnaire format--as opposed to an interview--might favourably influence both the response rate and people's willingness to give candid replies.

Purposes of the Measure

The first purpose of the "Survey on Blocks in Musicians" was to determine what the self-reported causes of blocks are to the completion of valued musical tasks in creative and re-creative musicians of both sexes.

The second purpose of the questionnaire was to solicit information which could aid in identifying possible associations. These include relationships which might exist among group (re-creative or creative), sex, and the total number of self-reported causes of blocks.

The third purpose was to ascertain the frequency and duration of the reported blocks in men and women from both groups.

The fourth purpose of the questionnaire was to test the hypothesis that a relationship might exist between the

number of causes of blocks cited by musicians in either group or sex, and the duration of their longest blocked period.

Finally, in the event of future research into this and related topics, a final item on the questionnaire (see Appendix F) served as an indicator of musicians' willingness to be interviewed at a later date.

Procedure

In this section, procedures for the collection of data from the sample and comparison group are described. As well, the procedures used to train the raters are explained, and the methods of data analysis are presented.

Data Collection Procedure

Concert composers who comprise the sample population reside across Canada, whereas the orchestral players who participated all live in one city. Members of the former group, therefore, were initially contacted by mail. Members of the latter group had an opportunity to meet with and question the author before collecting the survey packets from their mailboxes at work.

Individual Distribution of Materials

Permission was obtained from the directors of the aforementioned composers' registry to use the current list of members' names and addresses. From this list, 50 percent of the English-language members' names were chosen by random selection to receive mailed survey forms (see

Appendices E and F). Code numbers were matched to composers' names to facilitate follow-up tasks. Then, packets containing the survey materials were mailed to each person whose name had been selected. Stamped, self-addressed envelopes were included for ease of return to the researcher.

Group Distribution of Materials

Permission was obtained from the personnel manager of an orchestra in a large Canadian city to access a current list of players' names. Again, each name was given a code number, to facilitate follow-up. Then, individually addressed survey packets containing a cover letter, demographic sheet, questionnaire, and two copies of the consent form (see Appendix E) were placed in the mailboxes of 75 orchestral players. Approximately 30 musicians remained following a regular rehearsal to hear a brief description of the study. Potential volunteers were assured of confidentiality, and of the collective nature of the data to be reported. After having their questions answered, musicians were invited to participate in the study. Because several married couples work together in the orchestra, and because self-report measures may be susceptible to the effects of bias, people were requested to complete the questionnaire alone, at a time suited to personal reflection. Stamped, self-addressed envelopes were again provided for ease of return.

Return of Materials

Return of materials from all subjects had been requested within one week. Actual dates of return for both groups ranged from one week to three months after delivery. Upon receipt, each submission was acknowledged with a handwritten thank you note.

Methods of Data Analyses

To address the first Research Question, the form of analysis used was a comparative content analysis of manifest themes (Berelson, 1952). This method allows for the creation of mutually-exclusive, exhaustive categories into which the data can then be classified. The remaining eight research questions were dealt with statistically.

Descriptive Data: Self-reported causes of block

Although the need for the present investigation was inspired in part by Crosson's (1982a) study, procedures for the handling of data vary somewhat between the two studies.

Crosson reported that her subjects' primary block was taken as the one "first mentioned or [the one which] seemed to be stressed" (p. 75). It is unclear whether, in her study, the terms "block" and "causes of block" are synonymous.

In contrast, as shown in item "H," subjects in the present study were themselves asked to identify "one of your most significant blocks, and give the probable cause

or causes" (see Appendix F). It is important to note that under investigation here are not the blocks per se, but rather the self-reported causes of block. In theory, a lengthy response from any subject might include several causes of block, which could then be classified into any of the categories numbered 2-7. This was borne out in practise, as may be seen in Chapter IV.

Content Analysis: Procedure Used

Each of 143 causes cited by one or more of the 66 subjects was identified and underlined on the protocols, then recorded onto a separately numbered file card. Cards having similar causes of block were then sorted together, starting with the most closely related (or duplicated) causes, and progressing to causes related by more general themes. The goal was to create categories which would (a) clearly distinguish manifest themes from one another, (b) represent one, and only one, major theme with which each stated cause could be conceptually associated, and (c) be numerous enough to represent the potent themes which would emerge, yet few enough to meet cell requirements of statistical analyses.

Formation of interim categories.

Three successive collections of categories were tentatively established. One early grouping--based on Woodman and Schoenfeldt's (1990) conceptual divisions used in Chapter II--was discarded when the rationale for its

use failed to stand up under scrutiny in this context.

Other tentative groupings were dropped because they yielded categories in excess of what could be analyzed. This being the case, several causes which at first seemed to warrant being categorized independently were ultimately treated as sub-themes within broader categories of causes (see Appendix H).

For example, some respondents reported having insignificant blocks which did not trouble them. Cards with comments such as this were relegated together with the no block responses into Category 1.

Other musicians reported getting stuck when their initial ideas for compositions seemed banal. Cards bearing responses of this type were placed with others of a conceptual or problem-solving nature, in Category 3. The largest group of shared causes came from respondents who mentioned having too little time available as causing their blocks. With a bigger sample, cards representing this cause may have warranted a separate category. In the present study, musicians' blocks which are caused by feelings of being overworked and consequently short of time are deemed conceptually related to *Working Conditions*, and so are treated as a sub-theme within Category 4. Finally, several musicians cited performance anxiety as the cause of their blocks. Again, in a study with a larger sample, placing such cards into a separate

category might be appropriate. Given the present sample size, this cause is categorized with others of a similar nature into Category 5: Professional Esteem/Identity.

Once the major themes relevant to the population under study were identified, an effort was made to see if the provisional categories might parallel those identified by Crosson (1982a). Consequently, two categories were retained which match those in Crosson's study. Specific details concerning criteria for inclusion in each category are provided in the results section of Chapter IV.

Inter-rater Reliability Training

Consistent with the work of Porath (1990), two raters with graduate level training, who were not known to any of the subjects, were each provided with detailed definitions for the newly-formed categories (see Appendix H). Neither person was informed about additional objectives of the study beyond the evident fact that composers and orchestral players' causes of blocks were being explored. Numbered practice cards showing hypothetical causes for blocks were constructed and distributed to the raters, who were then asked to independently sort five cards.

Practice sheets for recording tentative decisions were provided (see Appendix I), results shared and discussion of decisions encouraged. Once ambiguities were clarified, five more hypothetical cards were distributed, and the process repeated until both people concurred about

the sorting of 20 cards. This phase of the training, which included minor refinements to the practice cards and expansion of the definitions, took place over three 90 minute sessions. Raters' suggestions for clarifying the definitions were often incorporated. Both raters were present at each meeting, and so received identical training. Thus far, the actual data from the study had not been discussed or shown to either of the raters.

The actual data were recorded on one set of 143 separate, numbered cards before being rated. Using the final version of the "Instructions for Raters" (see Appendix H) as the sole reference document, each person in turn worked alone to categorize all 143 data cards. Percentages of agreement were calculated, and a final session held to discuss and reassign items not agreed upon during round one. Results for rounds one and two of the inter-rater reliability check were recorded (see Appendix J), and are presented in Chapter IV.

Statistical Analyses of Inferential Data

In this section, the null hypotheses for those research questions which require statistical analyses are presented. Also included are statements of the tests chosen to conduct the analyses.

Null Hypotheses

1. No relationship will be found between the self-reported frequency of blocks in creative and re-

creative musicians.

2. No relationship will be found between the self-reported duration of their longest block in creative and re-creative musicians.
3. No difference will be found between the number of self-reported causes of blocks cited and the duration of the longest block in creative and re-creative musicians.
4. No relationship will be found between the self-reported frequency of blocks in males and females.
5. No relationship will be found between the self-reported duration of their longest block in males and females.
6. No difference will be found between the number of self-reported causes of blocks cited and the duration of the longest block in males and females.

As has already been discussed, much of the data obtained in this descriptive study were at the nominal and ordinal levels of measurement. Therefore, Chi-square was deemed an appropriate method of testing the null hypotheses numbered 1, 2, 4, and 5.

Where the focus of the problem was on subjects' total number of blocks, the data were at the interval level of measurement. This permitted exploratory testing of the null hypotheses numbered 3 and 6 by one-way analysis of

variance and two-way analysis of variance, where group means were compared.

For all questions where data were statistically analysed, results were considered significant when the .05 level of probability was met or exceeded.

Summary

The methodology used to conduct this exploratory study has been presented in this chapter. The sample groups, and their relevance to the study have been described in detail. Demographic characteristics of the sample were described, and the criteria and procedures used to select the subjects explained. The survey measure was described, together with procedures for its distribution and return. Finally, both qualitative and quantitative methods of analyzing these data were described. Included here was an in-depth account of inter-rater reliability procedures used, and a statement of the statistical procedures chosen. Results of these analyses are presented in Chapter IV.

CHAPTER IV

RESULTS AND DATA ANALYSIS

The results of the research questions posed in Chapter I are presented in this chapter. In the first section the qualitative results of the first two research questions concerning the nature of blocks and who has them are presented. Included here are the results of the inter-rater reliability process, and of the content analysis of manifest themes. In the second section, the results of the statistical procedures used to test the null hypotheses are presented. Finally, in the third section, a brief analysis of supportive incidental variables is presented.

Analysis of Qualitative Data: Causes of Block

The most fundamental aspect of the problem addressed in this study concerns the issue of what causes the blocks which impede people's creative and re-creative processes, or "What do people say are the causes of their blocks?" The first research question was intended to explore this.

The qualitative data in reply to the first research question were gathered from anecdotal responses to item "H" on the self-report questionnaire. In the problem

section of Chapter I, the original research question was stated as, "What are the self-reported causes of block in creative and re-creative musicians of both sexes?" On the questionnaire, item "H" was worded as follows: "If you have ever felt blocked from accomplishing a valued musical goal, please describe ONE OF YOUR MOST SIGNIFICANT blocks, and give the probable cause or causes."

Content Analysis of Manifest Themes: Musicians

Without Blocks

Nine subjects, or 13.6 percent of the original sample of 66, had their replies assigned by the raters to category 1 (No Blocks). Of these, one was a re-creative male (1.5 percent), two were creative females (3.0 percent), and six were creative males (9.1 percent). Their data were not subjected to further analysis.

Their removal left an N of 57 musicians, or 86.4 percent of the original 66 subjects. All self-reported causes of blocks were then assigned by the raters to the remaining six categories, numbered 2-7.

Content Analysis of Manifest Themes: Self-reported

Causes of Block

Content analysis of the responses to item "H" (quoted above) revealed six major themes, each of which represents a group of related constructs concerning causes of musicians' blocks. For ease of analysis, related sub-

themes are grouped together within the major categories (see Appendix H).

The final categories are listed below, together with the names of the major themes and their shortened terms for use in tables and figures throughout this document.

Category 1	No Blocks	(None)
Category 2	Process-Orientation	(Process)
Category 3	Problem-Solving	(Problem Solving)
Category 4	Working Conditions	(Work Conditions)
Category 5	Professional Esteem/ Identity	(Esteem)
Category 6	Emotion	(Emotion)
Category 7	Physical	(Physical)

Full definitions of the criteria for inclusion in each category of causes of block are given in the "Instructions for Raters" (see Appendix H). For convenience, brief explanations of these categories are included here:

1. Category 1 (No Blocks) serves as a repository for the data from musicians who indicated that blocks were either insignificant, or not an issue for them. These data were not included in the analysis.

2. Category 2 (Process-Orientation) includes causes attributed by the musicians to the creative process itself. As such, these causes of block are ultimately regarded by the subjects as necessary stepping-stones

towards further progress. An example is the comment that blocks are in fact "an integral part of composing."

3. Category 3 (*Problem-Solving*) includes causes of block which hamper musicians' conceptual addressing of strictly musical problems, e.g., difficulty in finding an appropriate way to illustrate a grisly film scene in musical terms.

4. Category 4 (*Working Conditions*) includes causes of block which arise from external sources related to the musician's work or workplace. One example is the concern over adverse social or political circumstances in the workplace which negatively affect musicians' well-being.

5. Category 5 (*Professional Esteem/Identity*) includes causes of block which are also associated with working life (as in category 4), but which arise from internal issues such as professional self-esteem, musical identity or role, abilities, or chances for success. An example is the situation where a person feels pressured to fit musical "ideas into someone else's mold."

6. Category 6 (*Emotion*) includes causes of block arising from emotional circumstances which extend beyond one's working life and into the personal realm. For example, feelings of depression or anxiety which are not confined to work settings.

7. Category 7 (*Physical*) includes causes of block such as aging, illness, fatigue, or any other physically-

related causes. Another example would be tendinitis, causing pain and disability while playing or writing.

Correspondence with Findings of Crosson

As mentioned in Chapter III, two of the foregoing categories match those used by Crosson (1982a). They are: Category 1, None; and Category 7, Physical. A third, Category 6, Emotion, strongly resembles Crosson's category of the same name.

There is a partial relationship between Crosson's Category 2, Jobs, and the present Category 4, Working Conditions; slight similarity exists between Crosson's Category 4, Renewal, and the present Category 2, Process Orientation. In each case, the differences were sufficient to warrant the creation of new categories.

Crosson's Category 5, Self-discipline, and her Category 6, No Cause, have no application to the present study.

Only partial support, therefore, exists for the first substantive hypothesis that the categories in this study would ultimately resemble those of Crosson.

Inter-rater Reliability: Results

The process by which the two raters were trained to reliably classify the data from the study into the above categories was described in Chapter III. Their levels of agreement were as follows:

On round one, the raters agreed with each other's blind categorizations for 113 out of the 143 data cards, or 79.02 percent of the time ($N = 66$). The remaining 30 data cards were subjected to a second round, where raters explained the rationales for each original assignment. In this manner, reasons for classifying each outstanding card were clarified and agreed upon, and the cards subsequently re-assigned by one rater or the other. During the round two process, the first rater changed votes 10 times, or 6.99 percent of the time; the second rater changed votes 20 times, or 13.99 percent of the time. The second and final tally resulted in 100 percent agreement as to the categorization of causes of block.

It is worth noting that assignments which eventually were overturned often resulted from a rater's having not re-read, or not recalled the "Instructions to raters" in sufficient detail. Occasionally a rater misinterpreted instructions, resulting in several incongruous assignments. These were resolved easily during the discussion process.

What Causes Whose Blocks?

The second fundamental aspect of the problem in this study concerns the issue of "Which causes of block are reported by members of different groups?" In this section, descriptive results are presented for each of the separate groups under study. It should be noted that

individuals who reported a block have listed anywhere between one and seven causes for their block.

Means and standard deviations were calculated separately for the number of causes of block, by category, reported by members of each group. The number of members in each group are as follows: (a) creative women ($\underline{n} = 10$), (b) creative men ($\underline{n} = 25$), (c) re-creative women ($\underline{n} = 8$), and (d) re-creative men ($\underline{n} = 14$).

Statistics for the mean number of causes assigned to categories 2-7 appear in Table 4. As may be seen from this table, creative subjects on average mentioned causes belonging to Category 2 (Process Orientation) more often than did re-creative subjects: the mean for creative women was 0.100; the mean for re-creative women was 0.0. The mean for creative men was 0.200; the mean for re-creative men was 0.071.

Another interesting result pertains to the women's and men's causes belonging to Category 6 (Emotion). The mean for creative women was 0.100, lower than the mean for creative men, which was 0.200. The mean for re-creative women (0.375) was only slightly above that for re-creative men, at 0.357.

In the re-creative group, men tended to score higher than women did for Category 4 (Working Conditions). The mean for re-creative women was 0.750; the mean for re-creative men was 1.429.

Table 4

Raw Scores, Means, and Standard Deviations for Number
of Causes, by Category

		CATEGORY							Totals
		1	2	3	4	5	6	7	
		^a _b							
		None	Process	Problem Solving	Work Condi- tions	Esteem	Emotion	Phys- ical	
Re-Creative Women	<i>x</i>	0	0	1	6	4	3	1	15
	<u>M</u>	-	0.000	0.125	0.750	0.500	0.375	0.125	
	<u>SD</u>	-	0.000	0.354	1.035	0.756	0.744	0.354	
Re-Creative Men	<i>x</i>	1	1	0	20	12	5	4	43
	<u>M</u>	-	0.071	0.000	1.429	0.857	0.357	0.286	
	<u>SD</u>	-	0.267	0.000	1.453	1.027	0.497	0.469	
Creative Women	<i>x</i>	2	1	1	8	8	1	0	21
	<u>M</u>	-	0.100	0.200	0.800	0.800	0.100	0.000	
	<u>SD</u>	-	0.316	0.422	0.789	0.919	0.316	0.000	
Creative Men	<i>x</i>	6	5	10	19	15	5	4	64
	<u>M</u>	-	0.200	0.400	0.720	0.600	0.200	0.160	
	<u>SD</u>	-	0.500	0.645	0.980	0.816	0.408	0.374	
Total Sample	<i>x</i>	9	7	12	53	39	14	9	143
	<u>M</u>	-	0.123	0.228	0.912	0.684	0.246	0.158	
	<u>SD</u>	-	0.381	0.501	1.106	0.869	0.474	0.368	

^a Not included in further analysis. ^b Does not include means for subjects who reported Category 1, No Blocks.

The proportions of creative to re-creative subjects' mean numbers of blocks in each category are illustrated in visual form in Figure 1. Corresponding proportions for women and men are presented in Figure 2. In Figure 3, the proportions of women's and men's mean number of blocks in each category are shown, and finally, in Figure 4, a similar comparison is shown for creative and re-creative subjects.

Statistical Analysis: Inferential Data

The third area to be focused on in this study concerns the possibility of relationships among the variables frequency, duration, and total number of their self-reported causes of blocks. As well, questions are posed concerning a possible association between the latter two variables.

In the following sub-sections of this chapter, results of the statistical procedures which were used to test the null hypotheses are presented. The order in which the Research Questions first appeared in Chapter I has been changed to reflect a shift in focus. Formerly, the Research Questions were arranged according to the variables of group or sex, i.e., creatives/re-creatives, or women/men. In the course of doing the analysis, a more meaningful sequence emerged which gives preference to issues over groups.

All results pertaining to the variable frequency of

Figure 1.

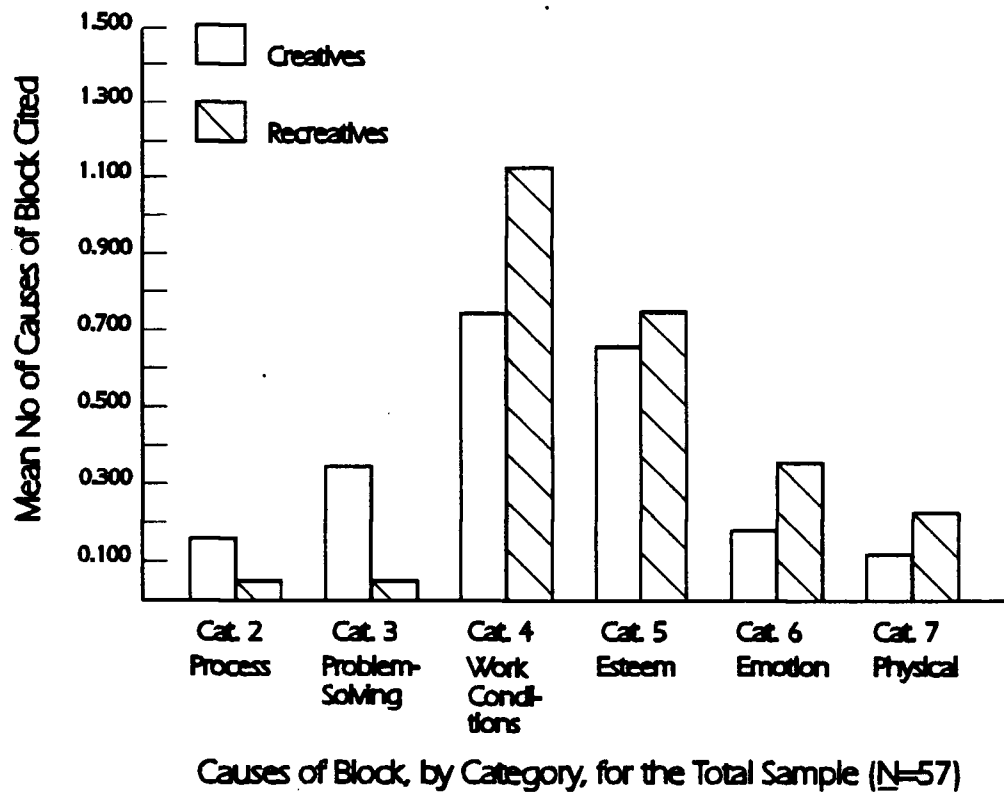


Figure 2.

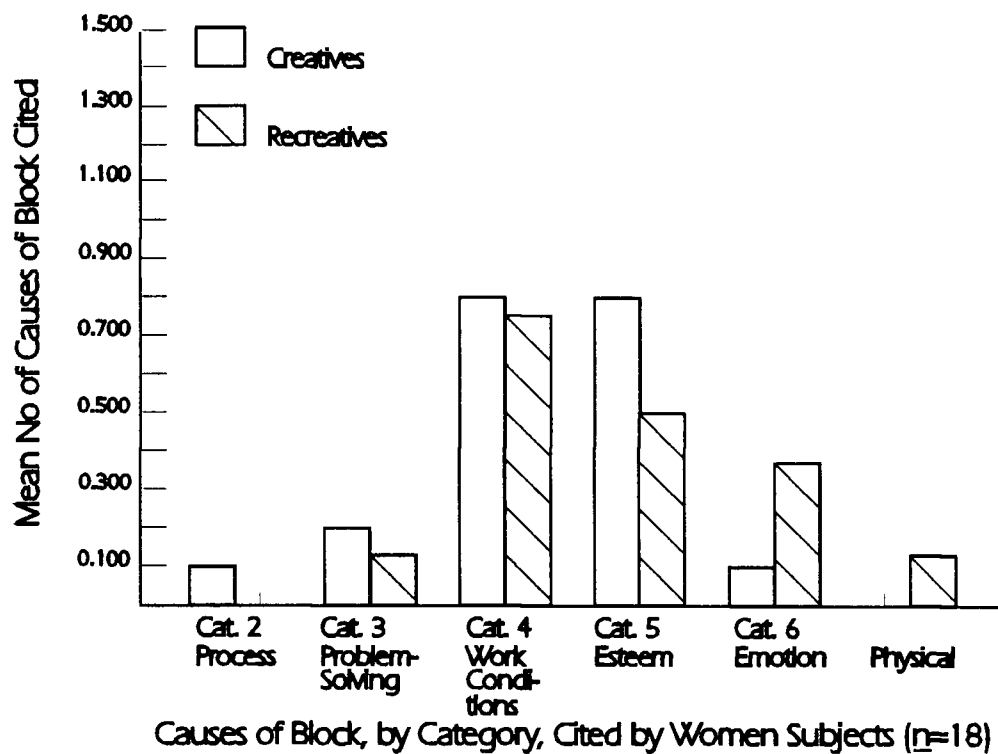


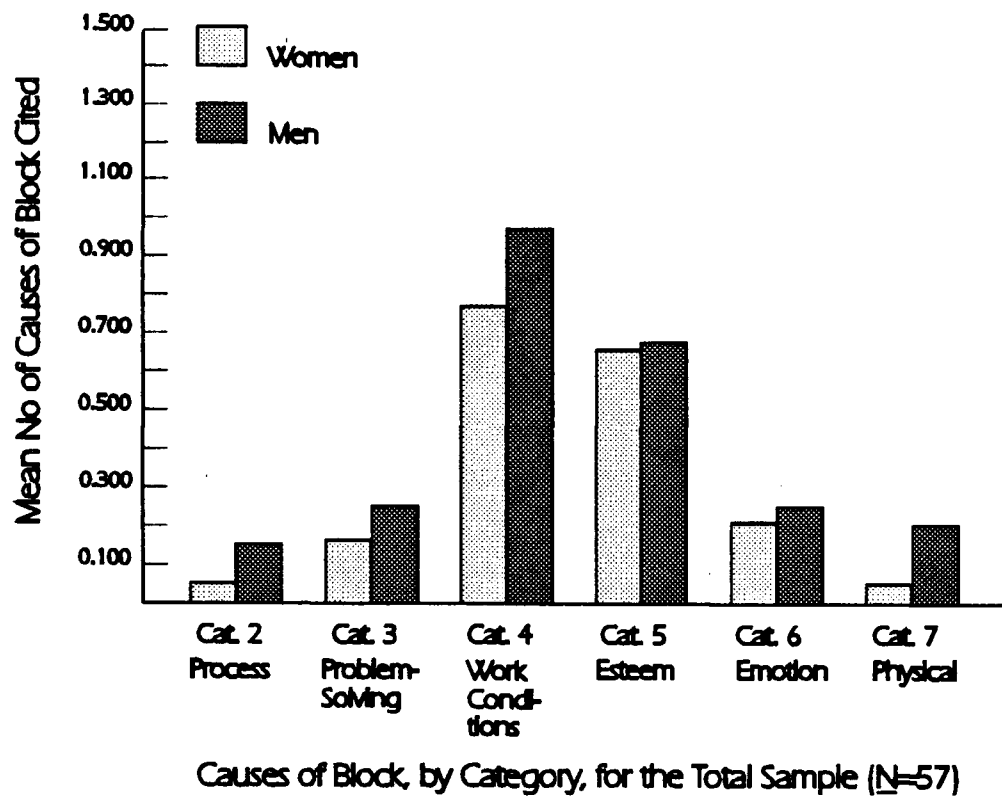
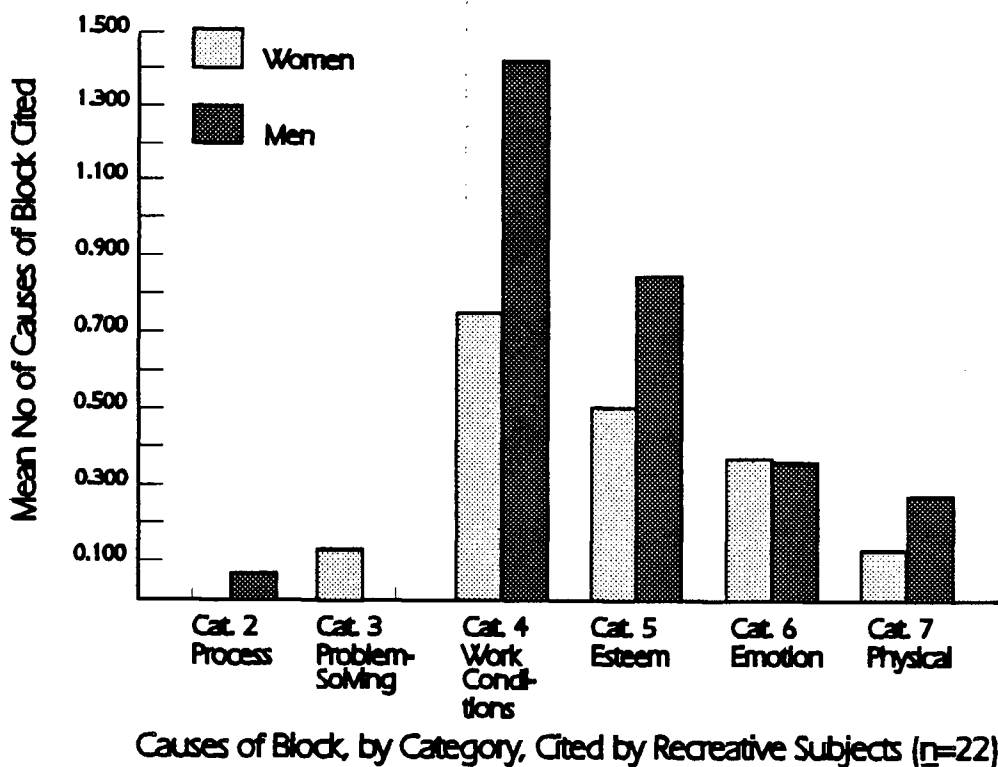
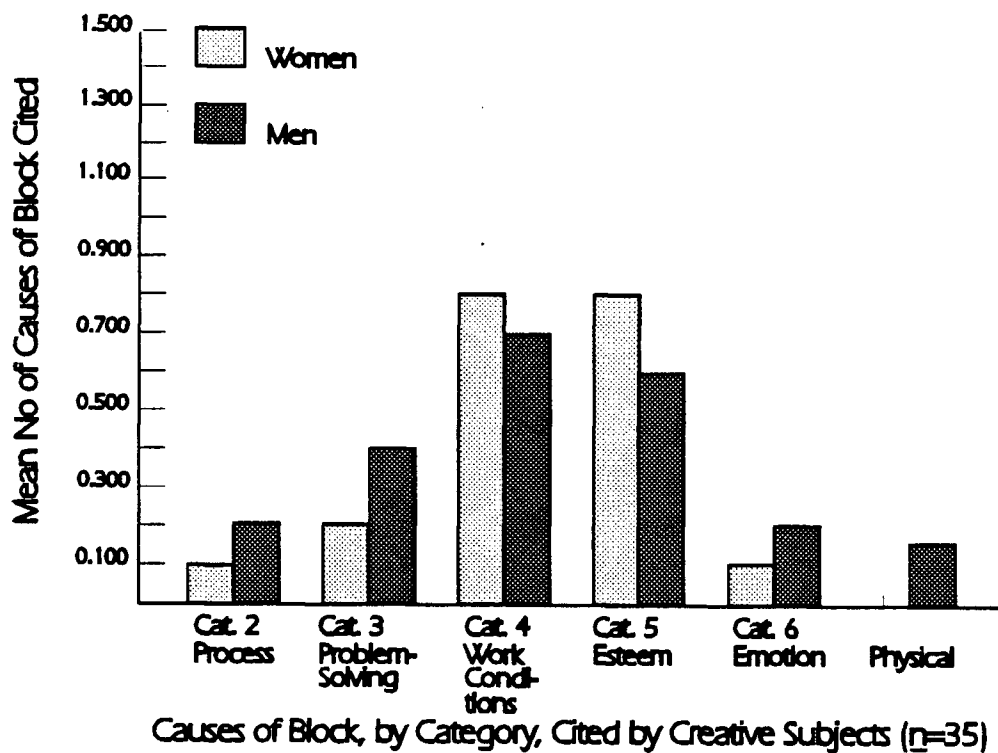
Figure 3.

Figure 4.



blocks are reported first. Next, results concerning the variable duration of the longest block are shared. Then, descriptive results concerning the total number of blocks are reported as background information to the interaction questions. Next, results of the interaction questions are presented. Finally, any relevant incidental results are reported. In each case, results pertaining to group are presented before results pertaining to gender.

Frequency of Blocks

The data to be analyzed relating to the variable of frequency were gathered from the responses to item "E" on the questionnaire which asks, "How often do you feel 'blocked' from accomplishing your primary musical goal?" (see Appendix F). Use of a five-point rating scale resulted in ordinal level data, which were analyzed using χ^2 test of association (Glass & Hopkins, 1984).

Results by group

As discussed in Chapter III, subjects who reported "No Blocks" were not included in the analysis. Scores of those who answered "1. Never" were not included in calculations reported here. Remaining response values were: "2. Hardly Ever; 3. Occasionally; 4. Mostly; and 5. Every Time" (see Appendix F). The mean reported level for the total sample fell in the "Hardly Ever" range (2.95, SD = .789); as did the mean for creatives (2.80, SD

= .797). The mean for re-creatives fell within the range of responses labelled "Occasionally" (3.18, SD = .733).

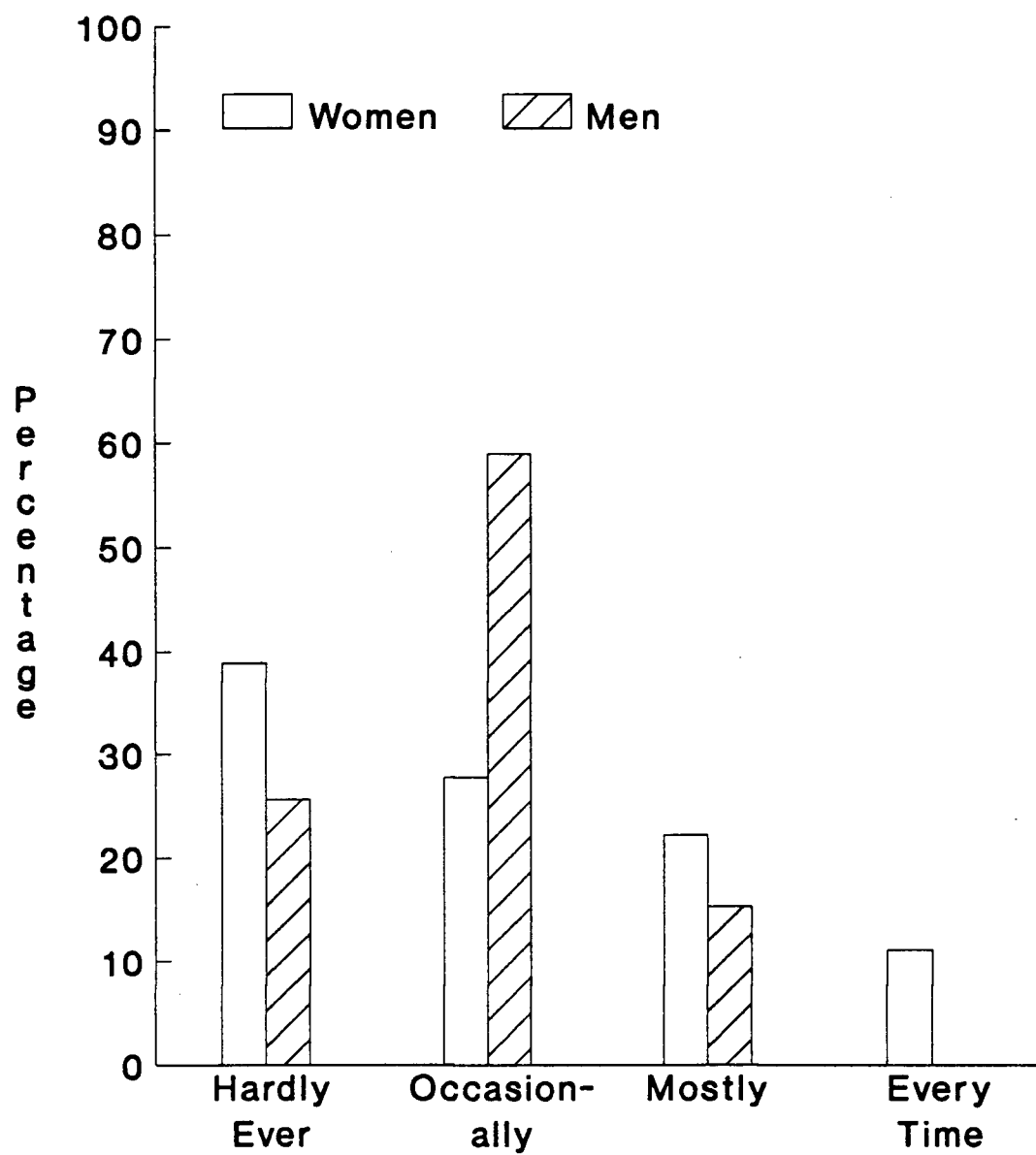
For creatives and re-creatives, Chi-square = 4.53 (DF = 3, N = 57, p = .2095. That is, no significant association exists between groups on the basis of their frequency of blocks. In other words, for the present sample, the creatives and re-creatives cannot be distinguished solely on the basis of the frequency of their blocks. The null Hypothesis 1 cannot therefore be rejected.

Results by sex

With respect to the variable, "Frequency of Block," the mean reported level (see response values given above) for women was 3.06, SD = 1.056; the mean for men was 2.90, SD = .641 (see Figure 5).

For women and men, the calculated value of Chi-square = 7.83 (DF = 3, N = 57, p = .0497. The critical value is below this value, therefore sufficient grounds exist for rejecting the null Hypothesis 4.

The men in this study were more likely than the women to say they hardly ever or occasionally felt blocked, whereas proportionately more women said they felt blocked mostly or every time. None of the men reported feeling blocked every time. These results appear in Table 5.

Figure 5.

**Frequency of Blocks:
Percentages for Total Sample (N=57)**

Table 5

Chi-Square Test of Association: Frequency of Block by Sex

	Hardly Ever	Occasion- ally	Mostly	Every Time	ROW TOTAL
Women	7 (5.37)	5 (8.84)	4 (3.16)	2 (0.63)	18 31.6%
Men	10 (11.63)	23 (19.16)	6 (6.84)	0 (1.37)	39 68.4%
COLUMN	17	28	10	2	57
TOTAL	29.8%	49.1%	17.5%	3.5%	100%

Notes. Expected frequencies are bracketed.

$$\chi^2 (3) = 7.83, p = .0497$$

Duration of Longest Block

Data for this variable were obtained from another ordinal scale. The question was, "As you recall the time(s) when you felt blocked from accomplishing a primary musical goal, to the best of your recollection, what was the duration of your LONGEST block?"

The eight options presented to subjects ranged from the shortest, "one day or less," to the longest, "more

than two years long; it lasted ____." These divisions proved unwieldy, and so were transformed for purposes of analysis. The new scale contained the divisions, "1. short," "2. medium," and "3. long." It should be noted that throughout the study, all test results on this variable reflect a reduced n , as there are five missing observations. Caution in making interpretations is therefore advisable.

Results by Group

The overall mean response to the variable "Duration of the Longest Block" was 1.90, $SD = .823$; the mean for creatives was 1.85, $SD = .784$; the mean for re-creatives was 2.00, $SD = .907$. Included in the figures for re-creatives is an outlier representing a duration of many years' standing.

For duration of the longest block by group (creatives and re-creatives), Chi-square = 1.89, ($DF = 2$, $n = 52$, $p = .3893$). These values are non-significant; therefore the null hypothesis cannot be rejected. For the subjects in this study, no association greater than what might occur by chance was found between the creatives and the re-creatives solely on the basis of duration of their longest block.

Results by Sex

With respect to "Duration of the Longest Block," the mean level for women was 1.93, $SD = .884$; the mean for men

was 1.89, SD = .809. Chi-square = 0.39 (DF = 2, p = .8211). These levels are not significant, and therefore the null hypothesis cannot be rejected. On the sole basis of duration of the longest block, no association greater than that which might occur by chance was found between the women and men who participated in this study.

Total Self-reported Causes of Block

As originally stated in Chapter I, an aim of this investigation had been to discover whether a relationship exists between the total number of causes of block which people have, and the length of time they feel blocked (duration). The data on the total number of causes were not gathered directly, but were obtained by summing the self-reported causes of blocks from item "H," which asked people to describe their blocks and tell what caused them. As such, these data meet the criterion for interval level data.

Although mean causes of blocks in each of the six categories have been reported elsewhere (see Table 4), no mention has yet been made of the total number of causes of blocks for people in the various groups. These figures are presented below as background information to the main interaction question.

For the total sample, the number of self-reported causes of block ranged from one to seven per subject. The mean number of causes overall was 2.35, SD = 1.58.

Creatives' mean number of causes of block was 2.20, $SD = 1.37$; re-creatives' mean number of causes of block was 2.59, $SD = 1.87$.

The mean number of causes of block for women was 1.94, $SD = 1.11$; the mean number of causes of block for men was 2.54, $SD = 1.73$. These results are shown in Table 6.

Total Causes with Duration of Longest Block

Although the null Hypotheses 3 and 6 covering this interactive question were originally stated separately for the creative and re-creative groups and for gender, they are conceptually related, and so have been tested together and singly. First, a one-way analysis of variance was performed on the data from the total sample, followed by the Student-Newman-Keuls Procedure. Then, separate two-way analyses of variance were done for group and sex on the total number of causes of block means by duration.

Results: One-way ANOVA

Results of one-way analysis of variance (ANOVA) of total causes of block means for the total sample by duration of the longest block are shown in Table 7. This analysis tests the question of whether the three duration groups (short, medium, and long) differ in the number of causes of blocks cited.

Given a significant F-test ($F = 3.34$, $p = .04$), a Student-Newman-Keuls Procedure was performed, to identify

the location of mean differences. A significant difference at the .05 level occurred between the means for Medium (Group 2) duration of blocks, and Long (Group 3) duration of blocks, but not between the means of Short (Group 1) duration of blocks, and either Medium (Group 2) or Long (Group 3) duration. The means in ascending order appear in Table 8.

Table 6

Mean Numbers of Total Causes of Block, for Group and for Sex

Condition	<u>n</u>	<u>M</u>	<u>SD</u>
Creatives	35	2.20	1.37
Re-creatives	22	2.59	1.87
Women	18	1.94	1.11
Men	39	2.54	1.73
Total sample	57	2.35	1.58

Table 7

One-way ANOVA Summary Table of Total Causes of Block Means
by Duration of the Longest Block

Source	<u>DF</u>	<u>SS</u>	<u>MS</u>	<u>F</u>
Between Groups*	2	13.36	6.68	3.34**
Within Groups	49	98.08	2.00	

*For the variable duration of the longest block, "groups" refers to short, medium, and long durations of block.

** $p = .0437$

Table 8

Student-Newman-Keuls Procedure Table of Total Causes
of Block Means by Duration of Longest Block

<u>M</u>	Condition	Group
1.71	Medium	(Group 2)
2.35	Short	(Group 1)
3.00	Long	(Group 3)

Although one-way analysis of variance for the sample as a whole indicated that there are mean differences at the .05 level of significance in total causes of blocks for participants reporting varying duration, several factors suggest a need for caution when interpreting this finding.

First, as discussed earlier regarding all tests on the variable duration of the longest block, five cases are missing. Second, included in the calculations are the data from an extreme outlier, and when the ANOVA was re-run without that case, no significant differences were found. Third, results of the two-way ANOVA reported in the next section provide inconsistent support for these findings.

Results: Two-way ANOVA by Duration and Group

This two-way analysis of variance permits a test of three questions. The two main effect results (1) retest the question of whether duration is related to the number of causes cited, and (2) test whether the creative and re-creative groups differ in the number of causes of block cited. In addition, it permits (3) a test of whether an interaction exists between duration and group, in relation to the total number of causes cited.

The results of the analysis appear in Table 9. The significance of the main effect for (1) the variable duration of the longest block ($F = 3.029$, $p = .058$) fell

just short of the level required, a finding which contradicts the result of the one-way test for duration reported earlier (see Table 7). As with all tests involving the latter variable, strength of these findings is diminished because of the reduced n of 52.

The main effect for (2) group (creatives/re-creatives) was not significant ($F = .022$, $p = .882$), and indicates that the groups do not differ in the total number of their causes cited. In addition, (3) the interaction term failed to reach significance ($F = .593$, $p = .557$), indicating that the two variables duration and group do not have a joint effect. Taken together, these results do not permit rejection of null Hypothesis 3.

Results: Two-way ANOVA by Duration and Sex

This two-way analysis of variance permits a test of three somewhat different questions than did the one reported in the previous section. The two main effect results (1) again retest the question of whether duration is related to the total number of causes cited, and (2) test whether the women and men differ in their total number of causes cited. Finally, it also permits (3) a test of whether an interaction exists between duration and sex, in relation to the total number of causes cited.

The results of this analysis appear in Table 10. The main effect for (1) the variable duration of the longest block exceeded the .05 level of statistical significance

Table 9

Summary Table of Two-way ANOVA Results of Total Causes of
Block Means by Group and by Duration of Longest Block

Source	<u>DF</u>	<u>F</u>	Significance of <u>F</u>
Main Effects	3	2.151	.107
Group	1	.022	.882
Duration	2	3.029	.058
2-Way Interactions	2	.593	.557
Group, Duration	2	.593	.557

Note. These data reflect a reduced n = 52.

Table 10

Summary Table of Two-way ANOVA Results of Total Causes of Block Means by Sex and by Duration of Longest Block

Source	<u>DF</u>	<u>F</u>	Significance of <u>F</u>
Main Effects	3	2.600	.063
Sex	1	.765	.386
Duration	2	3.692	.033*
2-Way Interactions	2	2.431	.099
Sex, Duration	2	2.431	.099

Notes. These data reflect a reduced $n = 52$.

* $p < .05$

($F = 3.692$, $p = .033$). Although confirming the result of the one-way ANOVA reported earlier, this finding does contradict the result of the other two-way ANOVA. Implications of these inconsistent results are explored in the Discussion section.

The main effect for (2) sex was not significant ($F = .765$, $p = .386$), and indicates that the women and men in this study do not differ in their total number of causes

cited. Finally, the interaction term failed to reach significance ($F = 2.431$, $p = .099$), indicating that the two variables duration and sex do not have a joint effect. Taken together, these results do not permit rejection of null Hypothesis 6.

In Chapter I, reference was made to the universal nature of thinking well (Bailin, 1988) and also of blocks to thinking well. The question arose as to whether the construct of "blocks to creativity" might usefully be subsumed under a more general construct of "working blocks." Although the focus of this study has been on the experiences of blocks in particular groups of musicians, rather than on workers in general, the findings with respect to creative and re-creative group members seem incidentally to offer support to the generalizable position. This point is discussed in the section on "Incidental Findings" in Chapter V.

Summary

In this chapter, qualitative results of the research question from problem one, originally posed in Chapter I, have been presented. As well, findings from the quantitative testing of the null hypotheses for problem two, which were first stated in Chapter III, were presented. These findings are discussed and interpreted in the next chapter.

CHAPTER V

SUMMARY AND DISCUSSION

Summary of the Study

Blocks to the completion of people's valued goals contribute to frustration in, and reduced enjoyment of, many creative pursuits. Composers and performers of concert music comprise a representative group of creative people whose working processes can be susceptible to blocks. Biographies and diaries of the world's great composers give historical evidence of musicians' long-standing blocks, such as those experienced by Rachmaninoff (Schonberg, 1981).

Contemporary investigations into the phenomenon of feeling blocked have so far been focused on the experiences of particular groups. For example, Boice reports on writers' block in academicians (1982a, 1982b), Sass (1984) discusses blocks in female artists, and Crosson (1982a, 1982b) compares the self-reported causes of female writers' and artists' blocks.

Some studies by Kemp (1981a, 1981b, 1982) exist in which personality traits of musicians are described;

however blocks per se are not the focus of Kemp's work. Musical theorists who assess difficulties faced by performers include Green & Gallwey (1986); Reubart, (1985); and Ristad, (1982); but systematic inquiry into musicians' blocks using established research methodology has not yet been reported in the literature.

In the present work, questions are explored concerning two overall problems. In one, the varying causes of blocks experienced by creative and re-creative concert musicians, and whether they resemble those of Crosson's (1982a) subjects, are investigated. In the second, musicians' experiences of frequency and duration of their longest blocks are studied. As stated in Chapter I, the possibility is also addressed that differences with regard to frequency and duration might exist between composers (creatives) and performers (re-creatives), or between the genders.

In the next sections, a summary of the qualitative results of the study is provided, followed by a summary of the quantitative findings.

Summary of Qualitative Results

Qualitative findings of the study include a schema for classifying causes of blocks to the creative and re-creative processes of musicians. Content analysis of manifest themes resulted in the emergence of seven major manifest (as opposed to implied) themes, each of which

stand for a group of causes of blocks. These themes were assigned to categories with the following titles: No Blocks, the data from which were not analyzed; Process-Orientation--where subjects reported having used a block as a stepping-stone to an insight or solution; Problem-Solving; Working Conditions; Professional Esteem/Identity; Emotion; and Physical. The first and last of these match those in Crosson's (1982a) study; the remaining categories only partially resemble them.

Summary of Quantitative Results

1. No association greater than that which could be expected by chance exists between creative and re-creative group membership and their frequency of blocks.

2. There is an association between the variables frequency of block and sex, indicated by the Chi-square test of association ($\chi^2 = 7.83, (3), p = .0497$). Men were more likely than women to say they hardly ever or only occasionally felt blocked, whereas proportionately more women said they felt blocked most of the time or every time.

3. No association greater than that which could be expected by chance exists between creative and re-creative group membership and the duration of their longest block.

4. No association greater than that which could be expected by chance exists between the sex and duration of the longest block.

5. For the total sample, a tentative finding points to mean differences on causes of blocks for participants reporting varying duration of the longest block. A surprising finding here is the significant difference between those who felt blocked for "medium" lengths of time, compared with those who felt blocked for "long" periods, but not compared with those who reported feeling blocked for "short" periods. It was the people reporting a "medium" duration of blocks who listed the greatest mean number of causes of blocks. This result must be interpreted cautiously because the effect failed to show up in the two-way ANOVA which tested duration as a main effect.

6. Based on the two-way ANOVAs, the main effect for the variable group (creatives/re-creatives) did not show a significant difference in total causes cited. Total causes of blocks cited was not related to the joint effect of duration and group.

7. Based on the two-way ANOVAs, the main effect for the variable sex did not show a significant difference in total causes cited. Total causes of blocks cited was not related to the joint effect of duration and sex.

Summary of Incidental Findings

1. The lack of differences found in frequency and duration between the creative and re-creative groups strengthens Kemp's assertion about the inherent

similarities between composers and performers. It is also of interest because of the more global issue, alluded to earlier, of creative versus working blocks. These findings seem to offer support for Bailin's (1988) contention that creative thinking is a higher level manifestation of thinking well in general.

Discussion and Interpretation

The present discussion is focused on findings which, although tentative, are nonetheless useful indicators of where future research might be directed. Where possible, an attempt is made to relate results to the relevant literature. An attempt is also made to illustrate discussion of qualitative findings with brief quotations excerpted from musicians' anecdotal responses. As in Chapter IV, quantitative results are organized according to the variables which deal with issues, as opposed to groups. Accordingly, results concerning frequency of blocks are discussed together, before results involving duration of the longest block. Interaction questions are discussed next, and finally an incidental variable is briefly discussed.

Discussion of Qualitative Findings

Content analysis of musicians' anecdotal responses to the survey reveals only a partial resemblance with the categories used by Crosson (1982a). Detailed definitions for the categories used here are given in the document,

"Instructions to Raters," (see Appendix H). It may be seen from this document that each of the six major themes contains a number of discrete sub-themes. These sub-themes are not analyzed individually in this study.

Findings Similar to Crosson's (1982a) Categories

Some respondents in both studies report No Blocks (Category 1); as stated in Chapter III, data from these subjects are not analyzed in the present work. In addition, some subjects in each study report feeling blocked because of physical (Category 7) difficulties such as injury, illness, or aging (see Figures 2 and 3). Although the definitions for Category 7 are identical across the two studies, important differences in subjects' experiences of blocks with this cause are noted below.

Findings Different from Crosson's

In the next two sections, experiences of subjects in the present study are differentiated from those of the artists and writers studied by Crosson (1982a).

Category 4: working conditions.

Differences in the definitions of categories between the two studies could be accounted for by the fact that orchestral musicians work in group settings, and therefore have a more communal experience of working life than do writers and artists. Disharmony among colleagues, for example, is cited by some musicians in this study as having a deleterious effect on their playing. As an

example, one orchestral player noted "distractions in performance usually caused by lack of unanimity in the group around me."

This finding relates to that of Kemp (1981a), mentioned in Chapter II. He stated that the more astute individuals may actually leave the music profession; if true, then those remaining might combine the qualities of being highly adept at music, but possibly less so at managing political differences.

Blocks attributed by subjects to difficulties at work were categorized by the raters as falling within Category 4 (*Working Conditions*). It could be speculated that blocks of this type, if unchecked, could become compounded, thereby influencing the formation of blocks in Category 5 (*Professional Identity/Esteem*), Category 6 (*Emotion*), or Category 7 (*Physical*).

Other relevant points have been mentioned in the literature review in Chapter II. It will be recalled that Steptoe (1989) found an association between stage fright and musicians' perceptions of career stress, about which he speculates a further relationship with neuroticism. Willings (1980), on the other hand, discusses this issue in terms of increased sensitivity on the part of creatively gifted individuals to environmental conditions, including the degree of approbation available from colleagues or the public. The work of both these authors

supports the present decision to categorize performance anxiety together with Professional Identity/Esteem.

Category 5: professional esteem/identity.

A further difference between subjects in the present study and those in other investigations concerns the syndrome of performance anxiety (Category 5). People who practise their profession in front of large audiences are sometimes subject to stage fright. As mentioned in Chapter III, enough re-creative subjects in this study cite this factor as a cause of their blocks to constitute a sub-theme of Performance Anxiety within the Professional Esteem/Identity category; limited size of the re-creative sample precluded the formation of a fully separate category.

Sometimes a consequence of severe blocks of this type is the use of the so-called beta-blocking drugs (Steptoe, 1989), one of which is propranolol (sold as Inderal). Its use by performers in general is mentioned in the submissions of re-creative subjects; however subjects in this study do not claim to take the drug themselves.

A related block involves the necessity of overcoming iatrogenic drug dependencies, where tranquilizers were originally prescribed with the intention of calming a subject's performance anxiety. Again, this is a finding which not only distinguishes the present population from those in other studies, it also discriminates between the

creative and re-creative portions of the present sample because it is not a cause mentioned by the creatives.

Category 7: physical.

Although physical problems affect workers in general, musicians are known to suffer particular injuries related to the playing of instruments (Chatelin, 1990; Green & Gallwey, 1986; Kella, 1989; Reubart, 1985; Ristad, 1982). These injuries may result from overuse, from incorrect technique, or from combinations of these along with physical tension. Examples come from players who mentioned cases of spinal discs degenerating, and tendinitis in wrists. These facts probably explain why re-creative subjects' mean numbers of reported causes in Category 7 (Physical) surpassed those of the creative subjects (see Table 3).

Although not statistically analyzed, this qualitative finding does differentiate the present population from those in other studies (Crosson, 1982a; Sass, 1984), where comparable afflictions are not mentioned. Moreover, it further distinguishes the creative and re-creative groups in the present study, because it is the members of the latter group who report most physical problems.

Findings Independent of Crosson's

A theme not present in Crosson's (1982a) findings, but which characterizes the submissions of several musicians in this study, is a philosophical approach

toward the nature and worth of the experience of block.

Category 2: process-orientation.

Possibly the most interesting and meaningful result of the study arises from subjects' anecdotal responses to questions concerning the origins and resolutions of their blocks (see Appendix F, items "H" and "J"). Content analysis of these statements reveals several manifest themes, including one termed "Process-Orientation," which corresponds to Category 2 (see Appendix H). The term is borrowed from Mindell's (1982, 1985) process-oriented psychology, inspired by the work of Carl Jung. Of process work, Roomy writes, "there is a profound trust in working with what comes" (1990, p. 3).

Statements qualifying for Category 2 reflect musicians' trust and acceptance of the integral role played by their experience of block. This orientation often coincides with the person's ascribing the cause of block to the creative process itself--hence, "process-orientation." Creative subjects said of their blocked times, they are not "useless or wasted hours," they can "force necessary reflection," they are "part of the creative process--a process of exploration," and are "an integral part of composing." One re-creative subject termed a block in retrospect, "a great learning experience for me."

These statements are consistent with references in

the literature to unbidden ideas and to mistakes and how they are conceptualized (Green & Gallwey, 1986; Mindell, 1982; Parnes, 1981; Parnes & Harding, 1962; Rogers, 1962; Shuman, 1989). If viewed as sources of potential discovery, rather than as impediments, "mistakes" or even misfortune can contribute to, rather than detract from, life processes in general, which of course include the creative and re-creative working processes of musicians.

In her well-known compendium of Jung's psychology, analyst June Singer (1973) states that Jung regarded psychological phenomena in general, including such phenomena as emotionally reactive behaviour and neuroses, as having a purpose. She writes,

Understanding the cause of a neurosis is not enough to explain its nature, and it is surely not effective in transforming the neurosis into a productive and rewarding aspect of being.... The causalistic point of view is insufficient; a second viewpoint must be brought into play. This second view is called by Jung the *finalistic* standpoint. By *finalistic* he means to suggest that the neurosis can be seen as striving for a purpose, an end or goal.

(p. 314, italics in original)

It is not mandatory to equate neurosis with blocks in order to benefit from Singer's discussion, although

writers such as Maslow (1962) have done so. Blocks to creativity need not be indicative of neurosis, especially in those with an active process-orientation. On the other hand, it seems likely that neuroses would be characterized by working blocks--whether to creative work or not.

The significance of the process-oriented category which has emerged from these data lies in the evidence it provides for the view that psychological phenomena can be purposeful. There is potency inherent in blocks which are recognized as valuable contributors, even clues, aids to personal and creative processes.

Creatives predominate in process-oriented category.

From subjects' written submissions alone, it is difficult to ascertain why the overwhelming majority of Process-Oriented comments come from Creative subjects (see Figures 1 and 2). Of the nine comments collected, only one was from a re-creative subject. It may be meaningfully speculated that music composition training encourages creatives' tolerance of their mistakes in composing. If such is the case, and unsuitable musical ideas are routinely saved for later use, then years of such practice may foster a parallel tolerance of blocks. It is also the case, however, that the majority of people who had causes of their blocks put into category 2 were men. When viewed together with the fact that differences were found in the frequency of blocks between women and

men ($\chi^2 = 7.83 (3)$, $p = .0497$), the notion of workable coping strategies among the men in this sample seems to be somewhat strengthened (see Table 5). It may be further argued that men in this study display a certain "acceptance of process" which allows for "mistaken steps" to be tolerated, and not labelled as blocks.

If Weisberg's (1986) thesis is valid, then the incremental nature of the creative process could account for creatives' valuing of any "mistaken" steps in their progressive processes. In this view, repeated practical experience constructing musical phrases (as with literary ones) demonstrates the value of building on, and eventually enhancing, earlier efforts.

Another possible interpretation suggests that re-creatives may have comparatively less autonomy in their working lives than creatives do. If one's perception is that section leaders, conductors or administrative staff make many of the pertinent decisions in one's life, then feelings of loss of control and helplessness may pervade. In such an emotional climate, the inclination to look upon problems as potential opportunities could be eroded.

The music history literature may be a source of sustenance for composers as they address their own experiences of block. The realization that Mozart endured extreme financial privation, Beethoven suffered the loss of his hearing, and Chopin persisted despite tuberculosis

could perhaps result in composers partially identifying with such individuals. Alternately, the contemporary musician might reason that the great trials which burdened one's musical forbears played an indefinable role in the production of great musical works, and that one's own trials might somehow be consciously and productively harnessed. Conversely, knowledge of music history may underlie a composer's appreciation of synthesizers and other electronic tools which make possible the exploration of a new genre, even though faulty tools may sometimes be seen to cause blocks (Category 4).

Discussion of Quantitative Findings

In this section, the quantitative findings of the study and their implications are discussed.

Frequency of Blocks and Group

The hypothesis that these variables might be related was not supported in this study. It appears that working at neither creative or re-creative musical pursuits is associated with a particular level of frequency of block; nor does having a particular frequency level serve to predict the group to which one belongs. It may be recalled that Kemp (1981b), in his study of musicians' personalities, concluded that temperamental links probably exist between composers (creatives) and orchestral players (re-creatives).

Frequency of Blocks and Sex

The men in this study are more likely than the women to say they hardly ever (25.64 percent) or occasionally (58.97 percent) feel blocked, yielding a sub-total of 84.61 percent in these two categories. They are less likely than the women to say they mostly (15.38 percent) feel blocked. None of the men report feeling blocked every time.

In comparison, 38.9 percent of the women report hardly ever feeling blocked; 27.8 percent of the women report occasionally feeling blocked; the sub-total for women in these two categories is 66.7 percent. The majority of women still fell into the categories labelled hardly ever or occasionally. The proportion of women who report feeling mostly blocked is 22.2 percent; for every time it is 11.1 percent, yielding a sub-total for the two categories of highest frequency of 33.33 percent. As may be seen in Figure 5, women respond in decreasing proportions to the available options, which are listed in the order of increasing level of frequency.

Although these are not chance findings, they should be interpreted with caution, as three (or 37.5 percent) of the eight cells in the χ^2 test of association contain fewer than five entries. Additionally, sample groups are unmatched, and the ratio of women to men is 18:39. Replicating the study with a larger, more balanced sample

would aid in further exploring this issue of possible effects of sex with frequency of blocked experiences.

Although the above discussion with respect to frequency of Blocks points to a sex difference, the source of the difference is unclear. To rule out whether individual differences--such as those introduced by data from outliers--are responsible for the women's and men's differing patterns, in-depth interviews and/or personality testing of subjects might be used.

The possibility of whether gender bias in the musical workplace is a contributing factor to the women's higher frequency of blocks is worth considering, especially so if this study were replicated using more female subjects; this would require the participation of members from several orchestras with varying styles of administration. Few women wrote about this issue, yet those who mentioned it as a cause of their blocks included copious supportive information with their complaints.

Actual differences related to gender may exist which could explain the findings. For example, there is some evidence that women may be more prepared than are men to acknowledge their emotional reactions. Highlen and Gillis (1978) report that women tend to disclose more feelings in general than do men. In order for feelings to be disclosed, they must already have been noticed (Perkins, 1975) and acknowledged. If noticing, acknowledging, and

revealing one's feelings in general are comparable to noticing, acknowledging, and revealing one's feelings of block; then three possibilities arise which might explain women's greater frequency of block scores. Either a) women in this sample have in fact a greater frequency of blocked experiences than do men, or b) whatever the two sexes' actual frequencies of block, the women may notice their feelings of block more frequently than do men, or c) regardless of actual frequency and noticing of one's blocks, the women are more willing than the men to acknowledge and disclose their blocks.

Another possibility which could be speculated is that men in general have been encouraged in 20th century society to focus on goals or products rather than on process. If this holds true for the male musicians in this study, then the men's goal-directed focus may help them to surmount small obstacles which might otherwise be perceived as blocks. It could also be inferred that these men may regard aspects of their working processes as valuable components of life processes in general, and hence, as worthwhile goals in themselves.

Duration of Block and Group

As with frequency of blocks, the hypothesis that these variables are related was not supported in this study. It appears that working at neither creative or re-creative musical pursuits is associated with a particular

duration of the longest block; these findings do not permit categorization of creative/re-creative people on the basis of the frequency of their blocks.

Duration of Block and Sex

No statistical association was established between the length of time people were blocked and their sex. However, visual examination of the plotted data indicates that the three reported blocks of longest standing are from re-creative women; these data are concealed by virtue of the categories' having been collapsed prior to analysis. As mentioned above, replication of this work using a larger sample and clearer expressions of units of blocked time are needed before implications concerning sex can be made.

Total Causes of Block and Duration.

After doing the one-way ANOVA, the follow-up test (Student-Newman-Keuls Procedure) indicates where the effect for duration of the longest block lies for the total sample. This effect is surprising because it indicates that with respect to total causes of blocks, people with medium and long durations of block differ significantly from each other, but not from people with short blocks. Duration of the longest block showed up as significant in one of the two-way ANOVAs (duration/sex), but not in the other (duration/group), although it came close ($F = 3.029$, $p = .058$).

It is difficult to know whether this level of probability would be increased or decreased, were a larger sample available. Possible explanations for this anomaly that were not addressed in this study might include personality variables such as coping style. Some subjects could conceivably notice and acknowledge a large number of causal factors for blocks, but be adept at dealing with any actual blocks quickly. As with other analyses on the variable duration, the n is reduced, data from an extreme outlier are included, and the data have been re-grouped.

Total Causes of Blocks and Variable Interactions.

Results of the interactions tested by two-way ANOVAs were non-significant. There is no effect between total causes of blocks, duration of longest block and creative or re-creative groups. Nor is there an effect between total causes of blocks, duration of longest block and sex.

Despite these findings, the results should be considered inconclusive until replication of the study with a larger sample and more evenly distributed groups can be accomplished. It is very likely that data from outliers distorted the true pattern of response. Another explanation for the unclear results to this interaction question may rest with the fact that, in this study, a group of idiosyncratic professionals were surveyed. Those who work at creative and re-creative pursuits are likely to display great originality in their approaches to life,

and no less so in their responses to surveys such as this. In itself, such individuality amongst subjects likely contributes to the validity of the qualitative results, because the range of comments expressed are likely to reflect deeply held views and sincere concerns. At the same time, testing of quantitative hypotheses in such a population would yield more conclusive results given a large enough sample size to allow for patterns of similarity and difference to emerge.

Discussion of Incidental Findings

A reading of subjects' submissions to open-ended items on the questionnaire, and also of additional notes on the back of pages or on separate pages indicates many musicians welcome the chance to share their views. Some acknowledged appreciation for the opportunity to be heard; most expressed interest in being involved in further research.

Because little difference is found between certain aspects of creatives' and re-creatives' professional experience, these findings may warrant future investigation of Bailin's point concerning the general nature of blocks. Although blocks to creativity may constitute a particular kind of experience, it may equally be the case that anyone who makes, produces, or creates something is subject to the experience of feeling blocked. The phenomenon may be a universal one associated with work

in general, rather than one peculiar to artistic or scientific work. Just how universal an experience feeling blocked may indeed be, is implied by Sass's (1984) finding that "... the characteristics of the creative block suggest that it can be conceptualized as a developmental transition" (p. 101). Seen in this light, the probability of one's encountering a block at some point can be appreciated philosophically. Without some sort of transition from one stage, idea, or emotion, to the next, there would be perpetual stagnation.

Further to points made earlier concerning Kemp's (1981b) work, it may also be that, on many dimensions, creative and re-creative musicians are essentially similar sorts of people. Questions of whether their experiences of frequency or duration of blocks are related may be less important than, for example, the question of whether members of one group display more extroversion or introversion; or whether certain aspects related to career satisfaction (Steptoe, 1989) might differ between these groups.

Conclusions

Conclusions Based on Qualitative Findings

1. Of respondents to this study, 13.6 percent of the original 66 musicians report experiencing no blocks; some say the idea of being blocked has never occurred to them.

2. The schema used for classifying data yielded six

categories which only partially resemble the findings of Crosson (1982a). A notable difference is in the "Working Conditions" category. In this study, musicians who work in team settings such as a symphony orchestra report more blocks arising from interpersonal issues than do Crosson's artists or writers; men overall report having more blocks caused by "Emotion" than do women.

3. The emergence of a "process-orientation" category is an important finding of this study. Subjects who report conceptualizing their blocks as necessary, integral parts of their working processes are almost exclusively creative males. These subjects seem to have devised coping strategies which enable them to accept both fluent and blocked elements of themselves or their working processes. These individuals seem to be implying that by waiting out the fallow times and celebrating the unpredictable aspects of their creative life, they somehow create conditions for unexpected and salutary resolutions to emerge.

Moreover, the attitude displayed by some subjects that blocks can be ultimately beneficial--even essential--aspects of the creative or re-creative working life represents a contribution of important empirical evidence. This stance supports the contentions of people such as Jung (1967) and Singer (1973), who hold that psychological phenomena, including blocks, have purpose in life. It is

a finding which counsellors may find useful as they explore their personal and professional values, and as they work with clients wishing to do the same.

4. Research results such as these need to inform counselling practice. One-to-one counselling or therapy, as well as workshops for groups, have long been given on topics related to creativity. Empirical evidence such as that contained in these data is required to assist those who would work effectively with blocked clients.

Conclusions Based on Quantitative Findings

1. For the sample surveyed, there is an association between sex and patterns of reporting the frequency of blocks. The men are most likely to report "occasionally" feeling blocked; none of the men report feeling blocked every time they play or compose music. Women in this sample are more likely to report "hardly ever" feeling blocked, although more women than would be expected by chance also report "most times" or "every time" they make music.

It could be speculated that the women tend to notice conditions or events which produce blocks (Perkins, 1975) more systematically than do the men. A corollary might be that men may elect to ignore much of the "block-causing" stimuli, in favour of "getting the job done."

There may also be a tendency among the women in this sample to acknowledge or self-disclose problems readily

(Highlen & Gillis, 1978) which could explain their increased tendency to report an increased frequency of blocks.

2. For members of the present sample, there is tentative but inconclusive evidence to suggest that differences do exist for the total number of causes of blocks between individuals with varying duration of their longest blocks.

In general, the trend is for people with a greater number of causes of blocks, to experience blocks of at least a medium duration, and possibly of long duration.

This empirical evidence suggests that counsellors working with blocked clients can understand those clients' blocked situations more thoroughly, and help to ameliorate them, with the knowledge that multiple causes of blocks may contribute to longer blocks. However, this information is only likely to be effective when used in concert with an appreciation of the qualitative findings from this study. If the process of living with and working through a block does in fact have a purpose, and can ultimately be beneficial, then care should be taken not to simply treat a block as something to be eradicated. Whatever ineffable processes are at work should, as Roomy (1990) wrote, be approached with "profound trust."

3. A common block in people's lives is the feeling of loss of enjoyment around valued work. These findings

illustrate how dedicated members of a profession such as musical composition or performance can find ways to conceptualize their blocks so as to benefit from them, rather than succumb to them. By extension, this approach may be useful to those in other occupations.

4. This exploratory study was intended to investigate "what is" in the domain of musical work, and also to discover where further exploration is needed. Thus, part of its contribution lies in the beginning effort of sifting out less informative issues from those worthy of greater study.

The next section concludes this work with suggestions about potentially worthwhile areas which could be concentrated upon in the future.

Recommendations for Further Research

Several characteristics of highly creative people were mentioned in the Review of the Literature: integrity, courage, endurance, freedom (Grudin, 1990), attraction to complexity, independence of judgement, self-confidence (Barron and Harrington, 1981), and tolerance of ambiguity (Dacey, 1988; Herzberg, 1987). Just as these personal attributes may be deemed necessary for sustained creative production, so also may favourable environmental conditions be believed by some creative professionals to be essential to their working process (Amabile, 1983). It may be speculated that such beliefs, deeply held, may

themselves be the forerunners of blocks. If people are convinced, for example, that personal qualities such as endurance (Category 5) or working conditions such as solitude (Category 4) are vital to their creative work, then they may feel blocked if those requirements are unmet. What could influence the formation of blocks, therefore, is the belief that one cannot work creatively or well unless ones' prerequisites are satisfied. Further research into the attitudes and experiences of both blocked and unblocked respondents is needed to evaluate this notion.

To speculate further, perhaps another level of creativity than that used with musical problems (Category 3), must be brought to bear by the individual on situational problems like those described above, in order to prevent an overwhelming number of blocks from occurring at once. Further research comparing responses of control subjects matched with those of subjects trained in general creative problem solving techniques is needed in order to test this hypothesis. The meaning and significance of factors such as insufficient working conditions (Category 4), or issues of professional esteem (Category 5) to members of non-musical creative populations needs also to be assessed.

It is recommended that this research be replicated, with the addition of a non-musical control group. A

substantially larger and more diverse sample--in terms of musical discipline as well as level of experience--is advised, in order to test for differences and similarities between controls and musically creative and re-creative populations. In this way, it may be determined whether Bailin's (1988) provocative assertions quoted at the beginning of Chapter I may find support.

To extend the latter idea further, a comparative study of people's creative blocks in members of widely varying occupations may illustrate just how ubiquitous blocks really are. Disciplines such as architecture, aeronautics, commercial advertising, computer science, counselling, human resources, education, engineering, medicine, public administration, publishing, research and development, sales and tourism could all represent fertile grounds for investigation.

Finally, it is evident that this investigation delves into questions for which many subjects feel a strong sense of involvement. The quantitative portion of the inquiry (problem two) may not be effectively tapping the areas of deepest meaning. It is therefore recommended that future research into the question of blocks to creativity, or working blocks in general, also be conducted using qualitative techniques; phenomenological investigation is particularly recommended.

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APPENDIX AA

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APPENDIX F

pages: 154-158

SURVEY ON BLOCKS IN MUSICIANS

RETURN ADDRESS:

Ms. Terre B. Thom
c/o The Department of Counselling Psychology
The Faculty of Education
University of British Columbia
5780 Toronto Road
VANCOUVER, B.C. V6T 1L2

CODE # _____

DEMOGRAPHIC INFORMATION

Each section below is accompanied by two or more possible responses. Please circle the ONE number which appears beside the response which applies to you.

I LEVEL OF EDUCATION (Please circle ONE)

1. Less than High School Graduation
2. High School Graduation
3. Some College / A.R.C.T.
4. Bachelor's Degree
5. Some Graduate School
6. Master's Degree
7. Post Master's Degree studies
8. Doctoral Degree
9. Other (Please describe) _____

II LEVEL OF EXPERIENCE (Please circle the ONE which most closely describes the time you've worked professionally at your TYPICAL or PRIMARY musical pursuit.)

1. Less than six months
2. More than six months, but less than one year
3. More than one year, but less than three years
4. More than three years, but less than five years
5. More than five years, but less than ten years
6. More than ten years, but less than twenty years
7. More than twenty years; have worked _____ years

III ETHNIC BACKGROUND

1. Native North American
2. Asian / Oriental
3. Asian / East Indian
4. Black
5. Caucasian
6. Other (Please state) _____

IV AGE

1. Under 20 years
2. 20 - 29 "
3. 30 - 39 "
4. 40 - 49 "
5. 50 - 59 "
6. 60 - 69 "
7. 70 - 79 "
8. 80 years & over

V GENDER

1. Female
2. Male

SURVEY ON BLOCKS IN MUSICIANS

Sometimes people feel hampered in their efforts to complete a project which is meaningful to them. I am interested in the experiences of musicians in this regard. The term "blocks" refers to external and internal inhibiting factors which get in the way of your completing valued musical goals. The questions in this survey deal with blocks to performance and composition of music. Your thoughtful, candid responses will be welcome.

A. Which category best describes your TYPICAL or PRIMARY musical pursuit? Please circle ONE number below.

1. Singer (classical)
2. Instrumentalist (classical)
3. Singer (extemporaneous)
4. Instrumentalist (extemporaneous)
5. Arranger
6. Songwriter (art, folk, jazz, pop, rock, sacred)
7. Composer (classical or contemporary)

B. If you circled item 1, 2, 3, or 4 above, please indicate whether or not solo performing represents over 50% of your work.

YES _____ NO _____

C. How much time do you spend at your primary musical pursuit? (Composing is assumed to include related activities such as formulating problems and planning; performing is assumed to include formal rehearsal.) Choose the ONE category below that best fits, and give an estimate of your hours spent.

1. Hours per day _____
2. Hours per week _____
3. Hours per month _____
4. Hours per year _____

D. How much creativity do you believe your work demands? ("Creativity" is assumed to involve the making of unique, high quality products.) Please CHECK (/) the appropriate point on the scale below.

1	2	3	4	5
none	fairly	moderate	quite a	a great
at all	little	amount	bit	deal

E. How often do you feel "blocked" from accomplishing your primary musical goal? (Please circle the ONE that best applies.)

1. Never
2. Hardly ever
3. Occasionally
4. Most times I perform / compose
5. Every time I perform / compose

F. Having considered the frequency of your blocks, is a seasonal pattern or any other pattern apparent to you?

Please take a few moments to think about what it's like when you feel stymied or blocked from accomplishing a musical goal that you value. When you are ready, please continue.

G. As you recall the time(s) when you felt blocked from accomplishing a primary musical goal, to the best of your recollection, what was the duration of your LONGEST block? Please circle ONE number below.

1. One day or less
2. Less than a week long
3. Between one and two weeks long
4. More than two weeks, but less than a month long
5. More than a month, but less than six months long
6. More than six months, but less than a year long
7. More than a year, but less than two years long
8. More than two years long; it lasted _____

H. If you have ever felt blocked from accomplishing a valued musical goal, please describe ONE OF YOUR MOST SIGNIFICANT blocks, and give the probable cause or causes. (If you require more space, please use the back of THIS page.)

- I. Has the block described in "H" above been resolved to your satisfaction?

YES _____ NO _____

- J. If you answered "yes" to "I" above, please indicate how your block was resolved.

- K. Do you have any particular feelings or reactions to the experience of filling out this questionnaire?

- L. Optional. If you wish to offer suggestions or criticisms about ANY aspect of this study, please feel free to do so.

CODE # _____

Survey on blocks in musicians, appendix

M. In the event of further research, would you be willing to be interviewed?

YES _____ NO _____

(You may detach this page before returning the packet, if you choose not to be interviewed.)

Your participation in this study is very much appreciated. Thank you for taking the time to respond, and to return these forms **within one week.**

APPENDIX G

page 159

INFORMATION FOR RATERS

INTER-RATER RELIABILITY TRAINING: INTRODUCTION

In this study, professional musicians were asked to describe a block they had experienced, and to state its CAUSE or CAUSES.

Seven categories have been chosen into which the CAUSES, or statements, are to be sorted. Definitions for each of the categories are given in this document. In addition, each CAUSE mentioned by the individuals surveyed has been written on a separate data card.

Your task is to decide into which category to place each of the statements. All decisions about the assigning of cards to categories must be based upon the definitions provided. In doubtful cases, please consult the last page of this document, headed "Pointers to Follow in Instances of Ambiguity."

Given below are the names of the seven categories into which you will sort the data cards:

CATEGORY 1: NO BLOCKS

CATEGORY 2: PROCESS-ORIENTATION

CATEGORY 3: PROBLEM-SOLVING

CATEGORY 4: WORKING CONDITIONS

CATEGORY 5: PROFESSIONAL ESTEEM / IDENTITY

CATEGORY 6: EMOTION

CATEGORY 7: PHYSICAL

The steps you will follow are set out on the next page. These instructions are crucially important to this task. Please refer to them in detail.

APPENDIX H
pages 160-165

INSTRUCTIONS TO RATERS

SECTION I.

1. Please become familiar with the "Definitions for categories of block." Refer to these four pages frequently; they will be your only guideline for the final rating task.

2. Read the statement on each data card completely and carefully before assigning the card to a category.

3. Check every data card against the entire definition for each category.

4. Understand the overall meaning of the card. Cards should be sorted according to their general themes, rather than according to a specific word embedded in the statement.

SECTION II.

1. Please use the seven heading cards provided for sorting the data cards into groups.

2. Realize that categories may contain unequal numbers of data cards.

3. Finally, please use the code numbers from the back of each card to record your final categorizations on the sheet provided.

DEFINITIONS FOR CATEGORIES OF BLOCKS

CATEGORY 1: NO BLOCKS

Subjects report having either insignificant blocks, or none at all. In addition, if subjects a) decline to answer the question, b) do not comprehend it, or c) leave it blank, then their responses fall into this category.

CATEGORY 2: PROCESS-ORIENTATION

Subjects acknowledge having felt blocked, yet they appreciate blocks as an indispensable part of the creative process. Whatever its cause, the block is understood as a necessary--even an inevitable--part of one's professional development, growth, or renewal. It may be recognized as a stepping-stone towards new perspectives or insights.

- Subjects may indicate dissatisfaction with the term "block" itself, because blocks are seen in light of the opportunities they might present.
- Although subjects may have felt inconvenienced by their blocks, in retrospect the blocks are not viewed negatively.

CATEGORY 3: PROBLEM-SOLVING

Subjects report blocks to the solving of musical problems. Such blocks may be thought of as standing between people and satisfactory resolutions of their compositional or performance challenges. Causes of block

which fit into Category 3 include:

- Feeling baffled about how to portray a given situation in musical terms,
- Difficulty conceptualizing or discovering musical ideas suited to the circumstances,
- Delay in finding stimulating or appropriate ways in which to convey a musical statement.
- Difficulty working beyond mediocre initial ideas, in order to achieve a performance or a product of acceptable quality.

CATEGORY 4: WORKING CONDITIONS

Subjects report blocks arising from what are seen as external sources related to work and the workplace. Those who work at home may mention domestic duties. Some causes of block which fit into Category 4 include:

- Heavy work loads,
- Difficulties with time scheduling, or with availability of time for music-making,
- Problems with instruments or computers,
- Social or political conditions in the workplace which adversely affect subjects,
- Receiving colleagues' criticism of one's product or performance,
- Perceived disregard of subjects' needs for recognition or encouragement. This disregard originates from external sources, in

comparison with the internal sources dealt with in Category 5; e.g., composers may experience a lack of opportunity to work, shown by few commissions or chances for their music to be performed. Performers may cite low salary, an apathetic public attitude, etc.

NOTE: Although the feelings expressed in this category may be identical to those mentioned in Category 5, they fall into Category 4 when they are attributed to external causes rather than to internal causes.

CATEGORY 5: PROFESSIONAL ESTEEM / IDENTITY

Subjects report internal blocks stemming from issues involving professional self-esteem, musical identity or role, abilities, or chances for success. Causes of blocks fit into this category when they originate from work contexts, i.e., they are associated with one's work as a musician, rather than with one's personal life. They include:

- Work habits, cognitive styles, or emotional approaches to work which inhibit progress,
- A tendency towards perfectionism; this may be stated in terms of having high standards,
- Sensitivity to potential criticism of one's musical product or performance abilities,
- Performance anxiety or "nerves," when clearly associated with work rather than private life,

- Difficulties motivating or disciplining oneself to perform necessary musical tasks,
- Reduction of enjoyment or reward associated with musical tasks--subjects may question whether to continue performing or composing,
- Questioning the worth of one's contribution.

CATEGORY 6: EMOTION

Subjects report internal blocks resulting from emotional life beyond work. Causes of block which fit into this category encompass a range of emotional reactions. They include:

- References to emotion (feeling anxious, etc.) that are not strictly related to work,
- Stated difficulties with close personal relationships,
- Internal conflict which goes beyond the sphere of work.

CATEGORY 7: PHYSICAL

Subjects report blocks which are attributed to some aspect of physical functioning. Causes of block which fit into category 7 include:

- Aging,
- Illness,
- Fatigue,
- Other physically-related causes.

POINTERS TO FOLLOW IN INSTANCES OF AMBIGUITY

If a card could conceivably fit into more than one category:

1. Please re-check the data card against the definition for each category.
2. Strive to understand each card in terms of the person's stated intent. Avoid "reading things into" people's ambiguous statements.
3. Check the EXTERNAL vs. INTERNAL dimension, which is differentiated by Categories 4 and 5.
4. Recall the WORK-RELATED aspects of both Categories 4 and 5, as opposed to the NON-WORK context covered by Category 6 (Emotion).
5. In case of unusual difficulty assigning a card to a category, please make the best assignment possible, noting in addition the code number of your uncertain choice on the back of the sheet. Thank you.

INTER-RATER RELIABILITY: CATEGORY ASSIGNMENTS

To raters: In the space following each heading below, please list the code numbers of the data cards which you decide belong in each category. Write the number from the back of each card.

CATEGORY 1: NO BLOCKS

CATEGORY 2: PROCESS-ORIENTATION

CATEGORY 3: PROBLEM-SOLVING

CATEGORY 4: WORKING CONDITIONS

CATEGORY 5: PROFESSIONAL ESTEEM / IDENTITY

CATEGORY 6: EMOTION

CATEGORY 7: PHYSICAL

Date: _____

Signature: _____

APPENDIX J

INTER-RATER RELIABILITY SCORES: RECORD

CARD#	(001)	(002)	(003)	ROUND 2	SUBJ #
001	_____	_____	_____	_____	_____
002	_____	_____	_____	_____	_____
003	_____	_____	_____	_____	_____
004	_____	_____	_____	_____	_____
005	_____	_____	_____	_____	_____
006	_____	_____	_____	_____	_____
007	_____	_____	_____	_____	_____
008	_____	_____	_____	_____	_____
009	_____	_____	_____	_____	_____
010	_____	_____	_____	_____	_____
011	_____	_____	_____	_____	_____
012	_____	_____	_____	_____	_____
013	_____	_____	_____	_____	_____
014	_____	_____	_____	_____	_____
015	_____	_____	_____	_____	_____
016	_____	_____	_____	_____	_____
017	_____	_____	_____	_____	_____
018	_____	_____	_____	_____	_____
019	_____	_____	_____	_____	_____
020	_____	_____	_____	_____	_____