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THE PHENOMENOLOGY OF PEAK EXPERIENCES IN RESPONSE TO MUSIC AND VISUAL ART AND SOME PERSONALITY CORRELATES

by

ROBERT PANZARELLA

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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Abstract

THE PHENOMENOLOGY OF PEAK EXPERIENCES IN RESPONSE TO MUSIC AND VISUAL ART AND SOME PERSONALITY CORRELATES

by

ROBERT PANZARELLA

Adviser: Professor Alden E. Wessman

Descriptions of peak experiences in response to music or visual art and some personality data were obtained from 103 persons, mostly musicians and artists. The peak experience accounts were content analyzed and then factor analyzed. Four factors emerged: renewal, motor-sensory, withdrawal, and fusion-emotional experiences. Renewal experiences were more associated with visual art accounts, and motor-sensory experiences with music accounts. Renewal factor scores were positively correlated with measures of sensation seeking and self-actualization, and withdrawal factor scores with measures of sociability and differentiated self-perception. Factor scores were not related to respondents' age, sex, education, approval motive scores, visual art or music ability.

Both music and visual art experiences displayed temporal stages, starting with cognitive responses and loss of self,

climaxing with continued loss of self and motor responses, and subsiding with emotional responses, self-transformations, and stimulus specific responses.

Compared to music experiences, visual art experiences involved a greater sense of contact with the artist, more apprehension of thematic content, and more fragmentary responses to the stimuli. In music experiences the performer and performance dominate over the composer and content of the work. The peak experience accounts seldom followed the norms of aesthetics or psychological models of aesthetic appreciation.

Among the effects attributed to aesthetic peak experiences were vivid memories recurrently providing pleasure or inspiration, permanently greater appreciation of aesthetics in general or of some particular creations, permanent "total" effects involving enhanced self appreciations and relationships with others as well as more optimistic attitudes towards life and the world in general. Positive mood effects were ordinarily of a few days duration. The frequency of peak experiences was positively correlated with differentiation in self perception, and the range of peak experience stimuli effective for the individual was positively correlated with a measure of self-actualization.

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I also want to thank Prof. Barry S. Brook, Chairman of the Music Department of The City University of New York, for his encouragement and practical assistance when I began this study. Then, at the end of the study, I became happily indebted to Samuel Gelbtuch and Edward Hahn for their meticulous labor in content analyzing the peak experience reports.

TABLE OF CONTENTS

THE PHENOMENOLOGY OF PEAK EXPERIENCES IN RESPONSE TO MUSIC AND VISUAL ART AND SOME PERSONALITY CORRELATES

LIST OF TABLES

CHAPTER 1:

THE PHENOMENOLOGY OF SOME ECSTATIC EXPERIENCES

This dissertation uses phenomenological data to build a bridge between two areas of psychology, neither of which has been mapped adequately. On one side is the area of peak experiences. It is an area of psychology characterized by tales of abundance told mostly by investigators who were adventurers too early to have the tools of empirical analysis or too impatient to be systematic in their explorations. A somewhat lengthy process of sorting some of their notes and organizing their data into a coherent concept of peak experiences occupies the first two chapters of this study.

On the other side lies the psychology of aesthetics. Fragmentary reports from this area have been filed continuously from the time of Helmholtz (1862) to the present. But many reports claiming to be from this area turn out on inspection to be about sounds or visual figures with no pretensions to aesthetic credentials. And among those which have been based on materials which might be considered aesthetic, most have looked at only aesthetic preferences and their correlates. Although a great many musicians and artists would say that aesthetic "experience" specificially requires that people not be engaged in the sort of tasks

demanded in preference studies, not all would agree. Probably all would agree that aesthetic experience includes much more than aesthetic judgments. To discover the totality of aesthetic experience and define it with an empirical, phenomenological methodology is the primary purpose of this study. Past research on aesthetics which may contribute to this endeavor has been sorted out from the rest and will be reviewed in Chapters 3 and 4.

This study does not focus on ordinary or average aesthetic experiences. Rather, it is concerned with "peak experiences" of music and visual art. The term "peak experiences" was deliberately left vague by its author, Abraham Maslow, so that it could cover a wide variety of experiences. Looking at some experiences of the kind he had in mind is where this study properly begins.

William James on Religious Experiences

To Maslow (1970b) religious mystical experiences were the archetype of peak experiences. Drug induced religious experiences and meditative states traditionally associated with religions were types of experiences of greatest interest to him in his last writings. But William James' Varieties of Religious Experience (1958/1902) was one of Maslow's early

sources. James, with his curiosity aroused by the religious revivalism of the late nineteenth century, had used mostly literary accounts to compose a psychological description of religious ecstasies. These experiences, according to James, had four essential notes: ineffability, noetic quality, transiency, and passivity.

A perennial claim of those who have ecstatic experiences is that ecstasy is indescribable. Yet some description, no matter how rudimentary, is necessary for the ecstatic to interpret his experience and communicate it to others. Ecstasy can to some degree be contained in words or other symbols, and not only the description but the experience itself can to some degree be imparted to others, as poets, artists, saints and other ecstatics do by profession. It is one of the paradoxes of ecstasy that it is held to be ineffable but commonly involves an urge to communicate the experience to others.

Ecstasies are noetic experiences insofar as they generate "insights into depths of truth unplumbed by the discursive intellect" (James, 1958/1902, p. 293). These insights are often new appreciations of familiar phrases or else fusions of opposite ideas, such as, dazzling obscurity, the teeming desert, the All and Nothing. Ecstasy is not usually sustained more than a half-hour or hour. During this

time the person feels he is under the influence of a power outside of himself and beyond the pale of any chemcial or technique he may have used to facilitate the experience.

James noted that these experiences bring about changes in the person. They inspire optimism and monism. Monism is a feeling of oneness with the supreme being and with all things. Related to monism is the reconciliation of usual dichotomies, that fusion of opposites which James regarded as the keynote of mystical enlightenment.

Despite the essential common features of the religious experiences which he outlined, James was impressed by the diverse forms such experiences may assume. Unable to reduce to a single schema the stages of mystical life described by a variety of writers, he said, "So many men, so many minds: I imagine that these experiences can be as infinitely varied as are the ideosyncrasies of individuals" (p. 313). One individual difference he specified was that persons with low intelligence seemed to be left flabbergasted and helpless in practical affairs by such experiences whereas persons of high intelligence were rendered more capable in practical affairs.

James remarked that there is another side to mysticism,

"a sort of religious mysticism turned upside down" (p. 326). This is the pathological mysticism often found in association with enfeebled or deluded states of mind. As in religious mysticism, small events are given ineffable importance, familiar statements are endowed with new meanings, inspirations occur, an extraneous power exerts control over the person, and visions or voices may appear. But in these 'lower mysticisms' the mood is pessimistic, one experiences desolations instead of consolations, the meanings perceived in phrases and events are dreadful, and the powers encountered are enemies to life. Experiences of this dark character were proof to James that not all that springs from ecstasy is good. The data of mystical experience like the data of sensory experience need to be sorted and judged.

Mystics have usually insisted that their experiences are not ordinary intellectual or sensory experiences. To express this conviction they spoke of special 'spiritual senses' which come into play in ecstasy. James, however, was content to speak of another region of the mind as the origin and 'faculty' of mystical experiences. To a large extent, their importance lay in the evidence they provided for the existence of a region of the mind beyond the conscious boundries of nineteenth century human nature.

> Our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different. We may go through life without suspecting their existence; but apply the requisite stimulus, and at a touch they are there in all their completeness, definite types of mentality which probably somewhere have their field of application and adaptation. (p. 298)

To James the closest analogue to mystical experience was musical experience. Music makes its impact without conceptual speech. It operates through some other modality of the mind. "There is a verge of the mind which these things haunt; and whispers therefrom mingle with the operations of our understanding, even as the waters of the infinite ocean send their waves to break among the pebbles that lie upon our shores" (p. 323).

Richard M. Bucke on Cosmic Consciousness

Just a few years before James, and well known to him, the Canadian psychiatrist Richard M. Bucke described an ecstasy induced state he labeled 'cosmic consciousness' (Bucke, 1974/1900). Although Bucke considered a religious disposition a necessary prerequisite for cosmic consciousness, he seems to have taken the first giant step towards the secularization of ecstasy. An ecstatic

experience of his own prompted him to study the phenomena of ecstasy and its effects.

From literary, biographical, and biological threads Bucke wove a theory of the natural evolution of consciousness from the simple awareness common to men and other animals, through an intermediary stage of self-awareness unique to human beings, to a newly emerging level of 'cosmic consciousness' which can be found in only a few exceptionally healthy human beings. In Bucke's schema, just as the evoluation of conceptual thinking in self-conscious man replaced the chaotic and fleeting percepts of simple consciousness, so the evolution of an intuitive, global mode of thought in a few cosmic conscious human beings has replaced the complicated machinery of conceptual thinking. In the further course of evolution, he predicted, cosmic consciousness will become a normal trait in human beings.

James and more recent investigators have been interested mostly in fleeting ecstatic experiences. However, Bucke, like some of the commentators on religious mysticism, was interested mostly in the enduring personality transformation resulting from a momentary experience of ecstasy. Consequently, Bucke emphasized the traits of people with cosmic consciousness more than the initial ecstatic

experience thought to engender these traits. He felt that the range of personalities with cosmic consciousness could be as broad as the range with self-consciousness, allowing for degrees of wisdom or foolishness on each plane of evolution. He also felt that the attainment of cosmic consciousness would not be the final perfection of the human species, which will forever climb to higher plateaus. Bucke certainly exhibited the optimism which James found characteristic of the grateful victims of ecstasy.

Famous historical cases, some acquaintances, and Bucke himself added up to a sample of fifty instances of cosmic consciousness from which Bucke drew his conclusions. He found that cosmic consciousness has occurred mostly in men, in good but not necessarily outstanding physical and intellectual specimens at an age of peak maturity between thirty and forty years old. Above all, the person to receive cosmic consciousness "must have an exalted moral nature, strong sympathies, a warm heart, courage, strong and earnest religious feeling" (p. 60). Unfortunately for the precocious, Bucke found that the younger the person at the age of his enlightening ecstasy, the younger he died.

The initiating ecstasy itself was described in terms of sensory, emotional, intellectual, and physical components, of

which the first is most likely to arouse the scepticism of the modern reader, although Bucke reported it as a component of his own experience and stated it with ample ambiguity, as follows: "The person, suddenly, without warning, has a sense of being immersed in a flame, or rose-colored cloud, or perhaps rather a sense that the mind is itself filled with such a cloud or haze" (p. 60). He allowed this might be a psychological rather than physical phenomenon. The emotional component of the experience consists of being bathed in joy, assurance, triumph, and 'salvation' in the sense that the person no longer feels a need to be 'saved' from anything. Third, there is an intellectual illumination which comes like a flash, "a clear conception (a vision) in outline of the meaning and drift of the universe" (p. 61). There is also a change in the physical appearance of the person during the ecstasy and for a short time afterwards. It is similar to but more intense than the change in appearance wrought by great joy.

Some other features of cosmic consciousness were listed by Bucke, but they seem to be more properly effects than components of the initiating ecstasy. To wit, the person acquires a sense of immortality, the fear of death falls off like an old cloak, the person no longer sees any sin in the world from which to escape, the personality acquires an

added charm which attracts others, there is an enormous increase in the powers of accumulating knowledge and initiating action, and there is a 'moral' elevation consisting mainly of an unshakeable happiness. The notions of 'sin' and 'salvation' were much more physical concepts in Bucke's time than they are now that poverty, disease, injustice, and other evils have been secularized. Hence, one should understand Bucke in broader terms than the diminished modern meanings of these words. Likewise, Bucke's phrase 'moral character' included some traits which today would be enumerated under the heading of a 'healthy personality.'

Poets may sing of joy and sorrow, life and death, light and darkness, but these are merely the themes of the most elevated minds on the level of self-consciousness. The person on the level of cosmic consciousness has surpassed and reconciled all these concerns. But the cosmic conscious person cannot adequately express himself to others because language is a tool fashioned to serve the needs of people at the self-conscious level of development.

Bucke's description of ecstatic experience was skeletal. Although coming from a psychiatrist, it lacked the physiological and more minute psychological details which

James noted. Bucke was more concerned with the prerequisite and subsequent characteristics of the person endowed with cosmic consciousness, for these lent evidence to his evolutionary explanation for cases of cosmic consciousness. The religious ecstatic attributed his experience to a divine source. Bucke attributed the ecstasy to a spontaneous evolutionary leap whereby a few good specimens of human beings suddenly developed a 'faculty' transcending conceptual thought and self-consciousness. But, like any other new characteristics of a biological species, cosmic consciousness is highly variable, unstable, and unusually sensitive to pathological influences. Pathological minds experiencing ecstatic states could be distinguished from healthy minds elevated by ecstasies, but the pathological cases were the proof of the pudding for Bucke's evolutionary theory.

Marghanita Laski on Ecstasy

Marghanita Laski (1961) realized with some surprise how readily readers of one of her novels accepted the writer's technique of changing a character's personality or switching from ordinary reality to a strange situation by introducing an ecstatic experience. She wondered what people really believe about ecstasy and just how common ecstatic experience may be. Over a period of a few years she asked twenty-six

male and twenty-seven female acquaintances, "Do you know a sensation of transcendent ecstasy?" and a few other questions aimed at getting their descriptions of ecstasy and inspiration. She then culled another twenty-four descriptions of ecstasy from religious literature, and after that twenty-seven descriptions from other literary sources. Later on descriptions of personal experiences written by fifty-two school children aged about twelve to fifteen were obtained through their teachers, but many of these were descriptions of merely pleasant experiences. Further attempts to gather descriptions through mail surveys were not very successful. Phrasing the question was a major problem.

After studying her data at length and trying various ways to sort it, Laski developed some categories for content analysis and fitted the data to these. One category was feelings of gain, such as, feelings of unity, eternity, heaven, release, new life, satisfaction, joy, salvation or perfection, glory or beauty, contact, mystical knowledge, enhanced mental capacity or new knowledge, ineffability. A second category was feelings of loss, such as, loss of feelings of difference, of time, place limitation, worldliness, desire, sorrow, sin, self, words or images, sensation or memory. Third, and last, was the category of quasi-physical feelings, which included "up" feelings,

"inside" feelings, feelings of light or heat, darkness, enlargement or improvement, pain or fear, liquidity, peace or calm. No matter what sort of feeling is involved, it is typical of ecstatic feelings that they be total, infinite, measureless.

Laski also classified the "triggers" which ignited ecstasies into eleven categories: natural scenery or objects, sexual love, childbirth, exercise or movement, religion, art, knowledge, creative work, recollection or introspection, and at the end that ever gracious, hospitable category, miscellaneous.

To qualify as a bona fide ecstasy in Laski's judgment, an experience must be set off by a trigger in her list and must contain two feelings of gain and one feeling of either loss or quasi-physical sensation. However, the descriptions she obtained in responses to her questions were mostly rather short, averaging only twenty-four words each. Indeed, one of her sixty-three responses consisted on merely the sentence, "I couldn't begin to describe it." Hence, for descriptions obtained in response to questions, as opposed to spontaneous descriptions, she lowered the standards of ecstasy from two feelings of gain to only one feeling of gain, plus the other requirements.

With her categories for descriptive words or phrases determined, Laski turned to a categorization of ecstatic experience descriptions taken as a whole. Her final product was not a single description of ecstasy but a typology of ecstasies. The first main division separated "withdrawal ecstasies" from "intensity" or "tumescent" ecstasies.

Withdrawal ecstasy descriptions tell of "slow and gentle merging, melting, liquefying, dissolving, usually into something else" (p. 47). Only six of one hundred fourteen texts exhibited these characteristics. Withdrawal ecstasies tended to be self-induced through contemplation. They were mostly from the religious texts in Laski's sample. Her religious texts were overwhelmingly Christian. Withdrawal ecstasies might be more common among eastern religious experiences, for these ecstasies incline toward an experience of nihilism or pantheism which, on the surface, tends to be acceptable in the East but heretical in the West.

Only one of the six withdrawal ecstasy descriptions contrasted the experience with an intensity experience. Of the other five texts, four related that an intensity experience followed the withdrawal experience, and one described an intensity experience followed by withdrawal.

The last mentioned was treated as an anomoly by Laski. She concluded that a withdrawal experience might occur by itself but that it "should" (italicized by Laski) be a prelude to an intensity ecstasy.

Intensity ecstasies were classified into three kinds, which were also treated as three stages of ecstatic experience of increasing value. First are "Adamic" ecstasies, which contain expressions of being joyful, purified, renewed. Often there is a primordial allusion or "unitive symbol," like Adam, childhood, sea, mountains. The unitive symbol sweeps the ecstatic into a single current flowing from the beginning to the end of time. Rather than loss of self, there is a feeling of renewal or rebirth of self and perhaps of all things. Among ecstatics "it is generally agreed that ecstasies in which self is lost are better than those in which feelings of self are not lost" (p. 92).

The second kind, or stage, is knowledge ecstasies, which may be simple knowledge ecstasies or knowledge-contact ecstasies. In simple knowledge ecstasies the person acquires new or mystical knowledge, which may be either communicable or unutterable, and which may be knowledge of something or, as is more common, knowledge of everything.

Typically the self is not lost. On the other hand, in knowledge-contact ecstasies self is often lost. The object of a contact may be a transcendental someone or something, a physical object or objects, or an immaterial all. The content produces the knowledge. Laski found that persons who were in creative or learned professions reported knowledge ecstasies but not usually people in other professions. The value of these ecstasies is tied to the knowledge they impart. "The more complete the knowledge is felt to be and the more incommunicable, the better the ecstasy" (p. 92).

The third kind or stage of ecstasy is union ecstasies. They consist of complete or nearly complete loss of sensibility and a feeling afterwards that the contact made was complete. Distinct from union ecstasies are unitive states. The former are of short duration. The latter are feelings of complete union which extend for hours or even days at a time. They are reported in the literature on religious ecstasy. Since long lasting experiences were categorized as unitive states, the label of ecstasy could be applied only to experiences of brief duration.

To explain reports of long lasting ecstasy, Laski referred to a possible preliminary withdrawal phase, then a

momentary experience of tumescence and discharge, followed by an extended period of "afterglow" lasting up to one hour. Four of her sixty-three ecstasy descriptions had begun with withdrawal phases. For the second phase no attempt was made to explain the difference between tumescence and discharge, if any was intended. Hence, no full theory of phases in an ecstatic experience was developed from this seed cast in passing. But the period of afterglow was fully described, especially insofar as it is the time when the ecstatic verbalizes and interprets his experience. The meaning attributed to the experience, particularly any knowledge thought to be gained in the experience, tends to be exaggerated. But, as James had noted, the beliefs arising out of ecstasy are not logically fastened to anything in the experience itself. These beliefs are more likely prior intuitions of the ecstatic which are confirmed regardless of specific content by the experience. Thus, beliefs attributed to ecstatic enlightenment were called "overbeliefs."

A category of ecstasies which overlaps the other categories is the revelation ecstasy. Laski's so-called revelation ecstasy was not meant to embrace ecstasies in which new knowledge is gained. Rather, it referred to ecstasies in which new value is disclosed by the trigger;

whatever triggers the ecstasy is appreciated by the ecstatic for the first time in a way which endows the trigger with enduring value. The trigger may have been familiar previously but its full value was not appreciated. This is sometimes the case with musical triggers. Children and young people especially may report revelation ecstasies.

If the trigger was previously familiar and if the person was already focusing increasing value upon it, Laski referred to an ecstatic experience of it as a conversion ecstasy. Conversion was defined as "a lasting and substantial mental reorganization, spontaneously achieved and accepted as beneficial" (p. 290). All ecstasies involve some degree of mental reorganization. But it seems forced to put any ecstasy induced by a familiar and aggrandizing focus of value under the heading of a conversion. Such an ecstasy may but need not lead to "substantial and lasting improvements in outlook and personality" (p. 289), which is considered intrinsic to the notion of conversion. Laski's abrupt exclusion of all conversions deliberately induced by others, especially of mass conversions, appears somewhat arbitrary. Ecstatic experience need not be diminished or false simply because it is prompted by another person.

Laski used the label "response experiences" to refer to

experiences insufficiently intense to be called ecstasy but otherwise similar. These pale ecstasies tend to be triggered by art objects or other familiar kinds of things which one expects to generate some degree of feelings of the sort which would constitute ecstasy if very intense. Ecstasy appears to be a rare event. It cannot be expected to occur. Yet expectations lesser in degree if not in kind may be warranted in deliberately approaching some triggers, such as, music, sex, or nature. The fulfillment of these lesser expectations was classified as response experiences.

Laski's vivisection of ecstasy was the most methodical and penetrating exploration of the phenomenology of the ecstatic experience. Unfortunately, the descriptions from people she knew were meagre and those from religious literature and from fiction were so much more homogenized. Her questions, intuitions, and conclusions easily outran the data. One wonders whether the types of ecstasies she described were stages or simply alternate types, whether the typology could be sustained by finer quantitative analyses of ecstasy descriptions, whether particular types of ecstasies are related to particular types of triggers, and whether they are related to the individual personalities of ecstatics.

Buchenholz and Naumburg on Pleasure Experiences

Investigations by Buchenholz (1956a, 1956b) and Buchenholz and Naumburg (1957) have yielded descriptions of intense pleasure experiences comparable to James' descriptions of mystical experiences and Laski's descriptions of ecstasy. Like Laski, Buchenholz and Naumburg encountered difficulty in phrasing questions about ecstatic experiences and tended to get very brief responses. Relying mostly on a mail-out questionnaire, they surveyed about two thousand people ranging in age from fourteen to seventy-five. They combined their respondents' short replies to formulate a comprehensive, uniform model of intense pleasure experiences.

In the climactic moment of intense pleasure the person feels drawn into the source of the pleasure. There is a feeling of bodily energy pressing for release and a sensation of buoyancy. Feelings of softness and warmth and relaxation come over the person.

Buchenholz and Naumburg distinguished a period of preparation preceding the experience, three phases of the experience itself (initial, buildup, and peak), and a period of integrative deactivation. The preparatory phase is marked by a commingling of pleasurable and unpleasurable

sensations, apprehension, excitement, elation, thrill, dizziness, and confusion, as the person prepares for either hoped for satisfaction or feared disappointment. The initial phase includes sensations of relaxation inner warmth, lightness, vibration, inner fullness and pressure, and exhilaration. The experience has a rather sharpt onset consisting of decline or disappearance of emergency emotions and acceptance of pleasurable sensations.

During the buildup phase there are sensations of withdrawing from irrelevant or contradictory aspects of reality, including time, and an increase of all the sensations of the initial phase, especially the sense of inner fullness and pressure. The pleasure sensation increases and becomes diffused throughout the person, time sense is lost, and feelings of confidence, strength, and mastery set in.

At the peak phase all the preceding sensations are maximized, particularly the sense of the experience flowing and diffusing throughout the body and the sense of loss of contact with reality. One is totally involved in the pleasure with a resulting loss of contact with extraneous reality.

The deactivation phase brings sensations of fulfillment,

accomplishment, satisfaction, contentment, well-being, relaxation, security, warmth, calm, and drowsiness. Decline from the peak is usually gradual. There is renewed contact with and involvment in extraneous reality, a recovery of time and space orientation, and a residual pleasure effect of "something added" to life.

Introspective, retroactive reports from one hundred college girls (Buchenholz, 1956b) disclosed that their experiences had three types of motivating effects, namely, physical, social, and pleasure feedback. The physical motivation consisted of an urge to action, but not goal directed action. There was an undifferentiated impulse to "do something." There was an impulse to physical expression, such as, laughing, which was more a discharge than a communication. The social motivation was primarily a desire to share or communicate the pleasure experience, although occasionally there was a desire to achieve, to accomplish, to master something. There was a heightened self-confidence.

The pleasure feedback motivation was a desire to move toward the source of pleasure, concentrate on it, intensify it, merge with it, hold it, and recover it if lost. Buchenholz reported that comparable data were obtained from

three other widely different groups of respondents: college males, people over forty, and people between the ages of fourteen and sixteen. Buchenholz's descriptions closely resemble some descriptions of drug experiences (see Blum, et al., 1968) and electronically induced stimulation of the 'pleasure center' in the brain (Olds, 1955).

Buchenholz's question was framed in terms of feelings and sensations, so it was not surprising that his data were heavily weighted in favor of sensations and emotions rather than cognitive, perceptual, or other elements. The knowledge ecstasies favored by Laski were not elicited by Buchenholz's inquiry.

The five stage model of Buchenholz and Naumburg was made by pasting together all the elements in their numerous short descriptions of pleasure experiences. The assumption was that all experiences consist of these five stages but that respondents' reports were fragmented. Insufficient allowance was made for the possibility that there might be a variety of experiences or that the experiences might be shaped differently by different triggers or cast into different experiential molds by individual personalities. The model is grand but requires evidence based on a more broadly phrased inquiry and much fuller individual responses.

Drug Experiences as Ecstasies

A debate has begun over the validity of treating drug experiences as ecstasies. Drug experiences have generally been described in the language of religious mystical experiences, emphasizing once again the prototypic character of the religious experience. On one side Huxley (1963), Watts (1962), Leary (1964), Stace (1960), and others have argued that drugs stimulate genuine mystical experiences. But Laski (1961), Zaehner (1957), and some others have argued to the contrary that drug experiences do not qualify as ecstatic or mystical experiences.

The drugs most considered have been peyote, mescaline, psilocybin, and LSD. A specific case for marijuana has not been developed, although it might be. "One highly respectable philosopher and author, who has explored a variety of chemicals, says that marijuana will take a person as far as LSD. To which I would add, especially if you can go as far as LSD on it. This is not tautalogous, for it cannot be said of coffee or orange juice; even if you are ready, coffee will not take you there" (Anonymous, 1972, p. 363). Anonymous, not being British perhaps, has missed the argument which has been developed (see Laski, pp. 100-101) in favor of attributing some kind of ecstatic effects,

however weak, to a hot cup of tea. The phenomenology of marijuana experiences can easily fulfill all the requirements for Laski's classification of withdrawal ecstasies. She would probably agree that marijuana might produce momentary ecstatic feelings in some persons, for she grants this in the case of other drugs. But, on the whole, Laski rejected drug experiences from classification as ecstasies because they contain so many non-ecstatic pehnomena.

The arguments against drug experiences as ecstasies are that they do not have beneficient effects on all who take them, that they produce many phenomena incompatible with ecstasy (e.g., sometimes a mocking attitude toward aesthetic objects or people), and that the unusual or enjoyable phenomena they produce do not satiate or transform the person as much as ecstasy. These arguments effectively exclude drug experiences taken as totalities from the domain of ecstasy. However, they do not demonstrate that a drug experience cannot <u>contain</u> an ecstasy. No trigger produces ecstasies in everyone or every time. Lesser phenomena or discordant phenomena do not preclude phenomena in the course of a drug experience which do meet the most rigid criteria of ecstasy. The main phenomenological difference between drug experiences and classic religious ecstasies seems to be

not lack of any phenomenon but rather the greater quantity of sensory phenomena in drug experiences (Kurtz, 1963).

Those who exclude drug experiences from the realm of ecstasy tend to base their arguments on the experiences of persons, themselves or others, who had low or negative expectations in taking drugs or who had not been prepared for the drug experience by someone who did believe in the ecstatic potential of drugs. Whether the drug be marijuana or a psychedelic, researchers agree that the setting of the drug experience, the person's expectations, and the influence of a favorably disposed guide are essential to achieving the maximum beneficial effects of the drug (Masters & Houston, 1966; Mogar, 1967; Weil, Zinberg, & Nelson, 1968). These non-chemical factors may account for the differences between psychedelic and psychotomimetic experiences as well as the differences between mild and intense positive experiences. The role of the guide, extensive preparation of the drug taker, awareness of the varying and not always suitable effects of different drugs, proper time and setting for drug experiences, the willingness to endure unpleasant side-effects in some cases, and most of all the willingness to yield to another perception of "reality" are all essential elements in the mythological structure of Castaneda's (1968) initiation into the teachings of the

pharmaceutical sorcerer Don Juan.

An experiment designed to produce religious ecstasy through ingestion of psilocybin was conducted by Pahnke and Richards (1972). They began by defining nine characteristics of mystical experience derived from Stace (1960) and from analysis of literary accounts. These characteristics were: (1) a feeling of unity with self or with the universe, (2) a sense of illumination through a non-rational, authoritative experience concerning being or existence in general, (3) transcendence of space and time, (4) sense of sacredness, (5) deeply felt positive mood, (6) resolution of paradoxes, (7) ineffability, (8) transiency of the experience, and (9) positive changes in attitudes and/or behavior.

After suitable preparatory discussions and under the guidance of positively disposed experienced drug takers, twenty religiously oriented persons were administered drugs in a chapel before a Good Friday service. Ten of them were given psilocybin, the other ten nicotinic acid. Since nicotinic acid has some sensory effects, it might maximize suggestibility effects, but it was not expected to produce such intense experiences as the more potent chemical, psilocybin. Indeed, it did not.

The psilocybin takers reported that much more mystical phenomena occurred during the experience and much more beneficient long term effects six months after the experience. Moreover, the phenomena reported by the psilocybin takers were "indistinguishable from, if not identical with, certain categories defined by the typology of mystical consciousness" (p. 194). Along the same lines, Leary and Clark (1963) reported that half of a group of convicts who were administered psilocybin after positively oriented preparation reported classic mystical experiences.

Although not himself involved in psychedelic research, Maslow (1970) also seems to have been persuaded that drug experiences could be mystical or "peak" experiences.

> In the last few years it has become quite clear that certain drugs called "psychedelic," especially LSD and psilocybin, give us some possibility of control in this realm of peak-experiences. It looks as if these drugs often produce peak-experiences in the right people under the right circumstances, so that perhaps we needn't wait for them to occur by good fortune. Perhaps we can actually produce a private personal peak-experience under observation and whenever we wish under religious or non-religious circumstances. We may then be able to study in its moment of birth the experience of illumination or revelation. Even more important, it may be that these drugs, and perhaps also hypnosis, could be used to produce a peak-experience, with core-religious revelation, in non-peakers, thus bridging the chasm between these two separated halves of mankind. (p. 27)

Whether psychedelic drugs might induce peak experiences

in non-peakers is an untested hypothesis, but the likelihood is against it. To be productive, the drug experience seems to demand a peaker to start with. The characteristics of peakers are the characteristics of good candidates for psychedelic experiences. However, if peak experiences tend to snowball, the psychedelic experience might accelerate the process, causing mild or repressed peakers, of whom there are many, according to Maslow, to peak more openly or sharply and causing already effective peakers to increase the intensity and/or frequency of their experiences. Klavetter and Mogar (1967) found a strong positive relationship between peak experience phenomena in LSD sessions and drug takers' scores on a post-session scale of self-actualizing behavior. But the Aristotelian mind again falls victim to the chicken and the egg in trying to determine what came first, in this case the LSD experience or the self-actualizing peaker.

The most meticulous and critical evaluation of psychedelic experiences in phenomenological terms up to the present is probably Masters and Houston's (1966) report on 206 drug sessions under their guidance and on the experiences of an additional 214 drug takers interviewed by them. Masters and Houston particularly emphasized the preparation of the drug taker, the setting for the experience, the role

of the guide, and the personality of the drug taker.

Masters and Houston defined four stages in the phenomenological experience of psychedelics. These stages need not occur in rigid sequence, the person might slide back and forth between them, and many persons do not achieve the deeper stages. Still, they provide a typology of the phenomenology. In order of 'depth' the levels are: (1) the sonsory level, dominated by sensory and perceptual phenomena, such as alterations in body image, spatial and temporal perception; (2) the recollective-analytic stage, in which the person experiences insights into his past and into his present personality; (3) a symbolic level (reached by some forty percent of drug takers) in which the person experiences himself in terms of myths, symbols or rituals which are often of a universal character; and (4) the integral level (reached by only eleven of 206 drug takers) experienced as total personal integration, "illumination," and a sense of fundamental self-transformation.

A high percentage of drug takers report having religious experiences even when the setting and the person are not apparantly religious. Masters and Houston have argued that religious language is not sufficient evidence of a religious experience. It is simply convenient for drug

takers to fall back on the established vocabulary of religious mysticism when they try to describe their experiences to themselves or to others. Hence, it might be misleading to take at face value the high percentages of religious experiences reported by various researchers.

To accept an experience as both religious and sufficiently intense to be called mystical, Masters and Houston demanded that it meet three criteria: encounter with the Other on the integral level, transformation of the self, and ordinarily a progression through the four phenomenological stages they described. The phenomenology of the mystical experiences of these drug takers was very similar and familiar. There was a sense of ego dissolving in boundless being, which was almost always accompanied by an experience of being innundated in light. The person felt he merged with the energy of the universe. Communion with All was deeply felt. Time yielded to eternity. The world was experienced as transfigured and unified and the person with it. Masters and Houston reported of these drug takers that all of them were over forty years of age, were of superior intelligence, were well adjusted and creative personalities, and all had actively sought mystical experience for many years through meditation or other "spiritual disciplines."

Masters and Houston also noted that persons who had such intense experiences deliberately avoided having another psychedelic experience at least for some months afterwards, for they felt the experience left them with so much new to be gradually integrated into their lives. Mogar (1967) had observed the same reaction among psychedelics who had especially transforming experiences. Moreover, instead of becoming abstracted or ineffective in coping with practical problems in their lives, drug takers with experiences on deeper levels became more concerned with details and more effective in handling their lives after their experiences. Other researchers have shown that such persons felt more meaning and purpose in life, were more aesthetically sensitive, felt more at one with nature and humanity, and exhibited less dogmatism, less concern over social status, and less concern over material possessions when tested two to six months after a psychedelic session (Savage, et al., 1966). Perhaps the kind of drug taker who becomes a habitual drug user and who becomes more alienated and less effective in living is the one who does not reach the deeper phenomenological levels, maybe due to lack of preparation or lack of prerequisite qualities or lack of a skilled guide.

Unfortunately, some of the psychedelic literature has given a bad name to aesthetic responses. There are some

writers who have used the label "aesthetic" to describe the lower level responses of the sensory stage (e.g, Masters & Houston, 1966; Pahnke & Richards, 1972). They did not intend to preclude deeper levels of experience resulting from contact with aesthetic triggers. They seem rather to have fallen back on aesthetics through linguistic default, much as drug takers might fall back on religious vocabulary. Hence, although they call lower level drug phenomena aesthetic experiences, they would not necessarily call all aesthetic experiences lower level phenomena.

Transcendental Meditation

Originally associated with drug mysticism among "hippies" in the 1950's and 1960's but since separated and thriving as an alternate route to mystical experience is transcendental meditation. The most popular musicians of the recent past, the Beattles, turned to transcendental meditation under the tuteledge of the guru Maharishi Mahest Yogi. Maharishi Mahesh instantly became and has remained the leading guru for Westerners interested in transcendental meditation. However, his book, Transcendental Meditation (1963), is neither so scholarly nor so phenomenologically rich as the classic work of Suzuki (1959) or some accounts by Westerners (e.g., Huber, 1969; Johnston, 1970; Lilly, 1972;

Shattock, 1958). The physiological and psychological aspects of Maharishi's system have been presented most amply by his disciples, Bloomfield, et al. (1975). Yet their work also omits any phenomenological account of the experience of transcendental meditation. According to Maharishi Mahesh himself (1963), the goal of transcendental meditation is "contact with being," It is a religious exercise but not necessarily a conventional western theistic or ecclesiastical ritual. The dominant phenomenological motif is a fusion of self with all else, which paradoxically is a discovery and a loss of self and all else.

Few persons are said to achieve the ultimate depths of transcendental experience. It should be observed that the visual metaphor for transcendental meditation leads downward. Although Laski regarded as suspect any account of ecstasy expressing downward rather than upward movement, Zen psychology has pictured the mind as a nine-layered depth which one must descend. Hence, the eastern transcendental journey is downward. If the nineteenth century western transcendentalists like Whitman and Wordsworth went up instead of down and still arrived at the goal, it was only because western mystical cosmology has always been Copernican. Either way, the journey is similar. The classic approach is through fasting, sleepless nights, physical

suffering, anxiety, and the contemplation of mysteries meant to break the logical chains of the mind. The Zen master beats his disciple, scolds him, sets him to vigils, and gives him impossible riddles to ponder. At the end of the journey for those who reach it is satori, a point of peace and enlightenment.

Those who do not reach satori may nonetheless reach other states of consciousness along the way. Maupin (1965, 1968) has described results achieved by subjects practicing transcendental meditation under experimental conditions. Twenty-eight beginners practiced meditation forty-five minutes daily for two weeks. During that time six achieved a "clear state," which is a detached state of self-observation regarded as the first landmark on the path to satori. Others experienced vivid breathing sensations, pleasant body sensations, relaxation and calmness, or dizziness and fogginess during some sessions. Analysis of pre-experimental measures indicated that tolerance for ambiguity best predicted success in meditation.

Deikman (1963), too, has reported an experiment in meditation. He had four experimental meditators and four controls. Over a three week period his meditators engaged in twelve meditation sessions, of which the first was five

minutes long, the second ten minutes, the third and all later sessions at least fifteen minutes long. These people were instructed to meditate by concentrating on a blue vase. Deikman was testing the hypothesis that meditators would develop psychological barriers to distracting stimuli. During meditation sessions he provided a variety of auditory stimuli. Meditators did report decreased awareness of these stimuli as sessions progressed. In addition, they reported that during meditation the vase became more luminous, seemed to change shape, and either partly or entirely lost its perceptual boundries. They became attached to the vase itself and were disturbed at its absence during a post-experimental session. The meditation sessions were found unusually pleasurable, valuable, and rewarding by all of the meditators. Deikman proposed that meditation results in de-automatization of cognitive and perceptual structures, allowing new cognitions and perceptions to occur.

Blocking of external stimuli during meditation was more dramatically demonstrated by Anand, Chhina and Singh (1961). They took EEG recordings from four Yogis. Two of the Yogis were observed before and during meditation (samadhi). Not before but during meditation EEG records showed no disruption of alpha rhythm by photic, auditory, thermal, or vibratory stimulations. The alpha rhythm characteristic

of relaxed wakefulness persisted uninterrupted. The other two Yogis showed no disruption of alpha rhythm when they each submerged a hand in water at four degrees centigrade for forty-five and fifty-five minutes. To shut out stimulation is the avowed goal of Yogis.

Somewhat different results were obtained in an experiment (Kasamatsu & Hirai, 1972) with Zen practictioners during their meditation (zazen). During zazen, too, alpha waves predominated. Some theta waves appeared in the cases of more experienced and more highly regarded meditators. Responses to stimulation were different, however. While meditating with eyes opened but focused on the floor about one meter in front of them, the three Zen masters tested with auditory stimuli did not habituate to a clicking sound given at fifteen second intervals for five minutes. Their alpha rhythms repeatedly showed three to five second interruptions. But four controls untrained in zazen and keeping their eyes closed did habituate to the clicking very rapidly. Too many variables were intertwined to give a confident explanation for the differences between the Zen masters and the Yogis in responses to stimulation during meditation. Yet it does seem that the Zen masters achieved their goal of maintaining a constantly fresh perception of stimuli, just as the Yogis achieved their goal of shutting

out stimuli. The effects of meditation may vary with the intentionality of the meditators (Tart, 1972).

Orme-Johnson (1973) reported yet another reaction pattern to stimulation of meditators. He found that eight persons who had an average of fifteen months prior meditation experience habituated twice as rapidly as non-meditators to a sudden loud noise. This report would coalesce with the data already presented if one were to assume that Orme-Johnson's meditators were not yet masters but were on the path to the goal achieved by the Yogis. He described his findings in terms of increased stability and lowered arousal level in the nervous system.

J.P. Banquet (1972, 1973) has observed a four stage progression in EEG activity during transcendental meditation: first, alpha activity; then slower frequencies, particularly theta patterns; third, synchronous beta waves of constant frequency and amplitude over the entire scalp; and finally a return to alpha waves at the end of the meditation. Immediately after meditation some alpha and theta waves may persist for a while even with the eyes open.

The assumption of the early EEG research was that alpha waves indicated a state of pleasant relaxed consciousness.

Brown (1970) had reported so in her research on bio-feedback. That assumption has been questioned by more recent studies. Bio-feedback subjects, who strive to produce alpha waves while monitoring their own EEG patterns, may experience some tension and frustration not only while trying to produce the waves but also after the alpha wave pattern has been established (Stroebel & Glueck, 1973). Hence, alpha waves do not necessarily indicate relaxation. A different physiological explanation has been offered to account for the effects of transcendental meditation.

Bloomfield, et al. (1975) have put together an explanation for transcendental meditation phenomena based mostly on unpublished results of a continuing three year study undertaken by Glueck and Stroebel and some other research by Campbell (1973). What is unique in the EEG patterns of meditators, they claim, is that waves from different areas of the brain become highly synchronized. An integration of activity in the two hemispheres and between the cortex and lower brain areas occurs. Cortical and limbic activity, which is related to conscious cognitive, affective, and perceptual activity, decreases; but reticular activating system responses, which are related to degree of alertness, increases. The result of this new balance, then, is an increase in alertness but a decrease in activity. In the

language of transcendental meditation, this is a state of alert relaxation or fully conscious deep restfulness.

Some investigators cited by Bloomfield, et al. have said that their findings were distorted to give an account overly favorable to transcendental meditation and that the high degree of brain wave synchronization reported might be an artifact induced by the way electrodes were located on the meditator's heads (Meditation, 1976, reference note). But none denied the general tenor of Bloomfield, et al. in affirming the positive values of transcendental meditation.

The specific element in transcendental meditation responsible for its psychological effects may be the mantra. The mantra is a sound, a secret syllable given to a meditator by his teacher, which the meditator repeats over and over to himself during meditation. Subvocal repetition of the mantra may inititate alpha or theta frequencies in the Broca area (speech area in the cortex of the dominant hemisphere of the brain), which may spread to the limbic system and then affect activities controlled by the limbic system, such as, breathing, perspiration, and heart beat. There is abundant evidence that transcendental meditation decreases metabolism, respiration, heart beat, and perspiration, all of which imply a decrease of tension (Allison, 1970; Wallace, 1970; Wallace & Benson, 1972;

Wallace, Benson, & Wilson, 1971).

When one finds some description of the phenomenological experience of meditation, two related features stand out. One is the experience of clearness or of nothingness being perceived. Essentially this seems to involve loss of self as an object of perception, including loss of specific objects of consciousness within self, and concomitant increased awareness of self as perceiver. Hence, there is an intense awareness of awareness, which is sometimes labeled pure awareness. Possibly prerequisite to this is a loss of ego boundries, which might also be called a loss of self, a fusion with all else, a regression to a pre-ego level of existence, a sense of unity, an oceanic experience, or dedifferentiation. Watts has described it as "a direct sensation of man-and-the-universe as a single pattern of behavior" (1969, p. 263). Adams (1961) has claimed that such dedifferentiation or loss of separateness is a major, unified dimension of personality cutting across such areas as the psychological structure of the individual (e.g., dedifferentiation between reason and emotion), interpersonal relationships (e.g., open to others versus alienated), and relationships to the physical environment. The experience of transcendental meditation may both presuppose and augment to some degree this sense of unity within and without. It

is certainly a common thread joining together the varieties of ecstatic experiences. It hints, too, that susceptibility to one type of ecstatic experience may be the best predictor of susceptibility to other kinds of ecstasies.

Maslow on Peak Experiences

Abraham Maslow (1962) cointed the term "peak-experience" to cover a wide range of phenomena like those already described. He was particularly influenced, if one may judge by his occasional references, by James, Bucke, and Laski. His later publications also bear deep impressions of eastern religions and psychedelic research reports. Mystical experience, religious experience, drug experiences, creative acts, aesthetic responses, orgasm, interpersonal experiences, childbirth, eating, cooking, arranging flowers, and numerous other behaviors have been called peak experiences by Maslow. Such behaviors are not always peak experiences, but any of them may be. Maslow was aware that there might be differences between such experiences, but he regarded the differences as minor and unimportant in the beginning stage of peak experience research (Maslow, 1970b). "Peak experience" was intended to be a generic classification. Maslow left it for others to classify the various species.

Maslow's conceptualization was broad not only in the variety of experiences it encompassed but also in the intensity of experiences it included. Since people reported that these experiences can occur with lesser degrees of intensity, Maslow discarded the notion of a qualitative difference between mystical experiences and all others. Instead he concluded, "It becomes possible to place the mystic experience on a quantitative continuum from intense to mild. We discover then that the mild mystic experience occurs in many, perhaps even most individuals, and that in the favored individual it occurs often, perhaps even daily" (1970a, pp. 164-165; italics in the original).

Maslow had begun with the conviction that people who have peak experiences, whom he called peakers, were rare. Peaking was associated with self-actualization, which he also considered rare, especially among young people. For a study of self-actualizing persons Maslow had to search far and long before finding a few appropriate subjects; a pool of about 3,000 college students provided only one self-actualizing person (Maslow, 1970a). As time passed, however, Maslow learned that the way in which people were asked about such experiences greatly influenced the number of persons reporting them. People are more able to recognize peak experiences in their own lives if the

questionner gives examples and places positive value on them (Maslow, 1970b).

Herbert Otto (1967) likewise found that people could recall a greater number of emotionally charged positive formative experiences from childhood, which were referred to as "Minerva experiences," if the people were in a group where others were narrating such experiences. Virtually everyone can report peak experiences if questioned appropriately, thought Maslow. Still, some persons have such experiences quite rarely and do not greatly value them. These persons are the non-peakers. They may have values such as high regard for rationality and order and pragmatism which act as suppressors of peak experiences.

Maslow attempted a comprehensive, albeit unstructured, phenomenology of peak experiences. He drew up a list of peak experience phenomena without regard to the various stimuli or the relations among the phenomena. He acknowledged,""No subject reported the full syndrome. I have added together all the partial responses to make a "perfect" composite syndrome"" (1962, p. 67). His list consisted of nineteen characteristics of peak experiences. Many of them presuppose the trigger is a specific perceptual object. Here are the characteristics of the peak experiences.

(1) The object is seen as a whole, as a complete unit, detached from any relations, usefulness, or purpose. (2) The percept is attended to fully and exclusively. (3) The object is seen independent of any utility it may have. (4) Repetition of the experience makes the perception richer. (5) The perception is relatively self-transcending, self-forgetful, egoless. (6) The experience is regarded as self-validating, self-justifying. (7) There is a disorientation, a forgetfulness or transcendence, of time and space. (8) The peak experience is always experienced as good and desirable. (9) The object perceived seems to be absolute in the sense that it exists independently of man and persists beyond his life. (10) The cognition is more passive and receptive than active.

(11) The emotional reaction is one of wonder, awe, reverence, humility, and surrender. (12) The entire world is perceived as a unity, or the part of it being perceived seems to contain the whole for the moment. (13) The object is perceived simultaneously as something concrete and as abstract. (14) Dichotomies, polarities, and conflicts are fused, transcended or resolved. (15) The person has a complete, loving, uncondemning, compassionate, and perhaps amused acceptance of the world and of himself.

(16) Perception tends to be idiographic and non-classificatory, with the object seen as totally unique. (17) There is a complete but momentary loss of fear, anxiety, inhibition, defense and control, a giving up of renunciation, delay and restraint. (18) There is a dynamic parallelism or isomorphism between the person and the world, so that perception of both the person and the world is enhanced. (19) In psychoanalytic terms, there is a fusion of ego, id, super-ego and ego-ideal, of conscious and unconscious, of primary and secondary processes, a synthesizing of pleasure principle with reality principle, a regression without fear in the service of the greatest maturity, a true integration of the person at all levels.

As is clear from the above account, Maslow's phenomenology was primarily in terms of perception and cognition. Emotional and sensory elements were present but in the background. He reported (1962), with an admission that he could not assess its meaning, that younger people told of two different kinds of physical reactions, one of excitement and high tension, the other of relaxation and stillness. He took these to be alternate possible reactions. Another possibility could be that they were different stages in a single reaction pattern. Another age related feature reported by Maslow was that the emotional intensity of

peak experiences diminished in older persons. He took the view that the aging organism simply could not tolerate many such bursting experiences.

To Maslow the peak experience was a special cognitive state, which he called "B" cognition ("B" for "being" as opposed to "N" for "needing" or "D" for "deficiency"). His theory of the hierarchical arrangement of needs postulated that the organism had to satisfy rudimentary physical and safety needs before higher needs of self-actualization could emerge significantly. The organism on the self-actualizing level has satisfied lower needs, and so its cognition or perception is no longer dominated by "need" or "deficiency." When the self-actualizing persons perceives an object, he can perceive it as it is in itself ("B" cognition), not just in terms of what it can do for him ("N" or "D" cognition). The peak experience often consists of such an act of perception in viewing a specific object.

Most likely under the influence of Laski, Maslow came to recognize a somewhat different kind of experience which he called a "plateau experience." It is an experience less intense but longer lasting than a peak experience. It is a state of "unitive consciousness," which always has a noetic element. The plateau state, Maslow reported, can be

achieved through prolonged practice of the traditional and the newer "spiritual disciplines." The plateau experience thus is more likely to occur at an older age both because it requires extensive preparation and because "the aging body and nervous system is less capable of tolerating a really shaking peak-experience" (1970b, p. xv). "The less intense plateau-experience is more often experienced as pure enjoyment and happiness, as, let's say, in a mother sitting quietly looking, by the hour, at her baby playing, and marveling, wondering, philosophizing, not quite believing" (1970b, p. xv). The peak experience, on the other hand, is sudden, unearned, short, intense, surprising, and may be purely emotional.

In addition to the phenomenology, the effects of peak experiences on personality and behavior were of great interest to Maslow. Indeed, it was the self-actualizing value of these experiences which had led Maslow to them in his study of healthy personalities. From case studies he composed a list of seven effects of peak experiences.

(1) They may and do have some therapeutic effects in the strict sense of removing symptoms. (2) They can change a person's view of himself in a healthy direction. (3) They can change his view of other people and his relations to

them. (4) They can change more or less permanently his view of the world, or of aspects or parts of it. (5) They can release him for greater creativity, spontaneity, expressiveness, ideosyncracy. (6) He remembers the experience as a very important and desirable happening and seeks to repeat it. (7) The person is more apt to feel that life in general is worthwhile.

Maslow's description of peak and plateau experiences was rich in connotation and suggestions. It may leave the more empirically oriented reader wishing for more precise denotative description and for evidence to support his conclusions. However, Maslow's research was not sufficient to enable him to progress beyond general propositions, nor even to state them with certaintly. He meant them as tentative formulations based on exploratory excursions into the realm of ecstatic experiences. When the research done by others on the various types of ecstatic experiences which have been reviewed in the preceding pages is added to the account, a broader perspective opens up and at the same time a closer analysis becomes possible. This broader perspective and closer analysis are the substance of the next chapter.

CHAPTER 2:
THE NATURE OF PEAK EXPERIENCES

Besides the kinds of ecstatic experiences which have been described in Chapter 1, there are others which might be added to the list. For example, there are athletic experiences, wilderness experiences, group belonging experiences, and literally countless more. Indeed, aesthetic experiences have scarcely been mentioned so far, although attention will turn wholly to them after this chapter. The experiences which have been examined are among those which have been researched and analyzed most painstakingly. They are a sufficient base on which to build a general definition of peak experiences at this time.

Peak Experiences as Ecstasies

Maslow regarded peak experiences as the modern secular equivalent of religious ecstasies. At first he hesitated to make the comparions since many peak experience reports contained only mild phenomena. But he resolved the problem by allowing for ecstasies of varying intensities, ranging from "mild ecstasies" to experiences which at least the aging organism might not be able to survive physically. Laski also found it necessary out of respect for her data to

abandon a monolithic concept of ecstasy. Following the traditions of religious ecstatics, she conceptualized qualitative differences in ecstatic states rather than merely an intensity dimension like Maslow's conceptualization. The most radical distinction was between withdrawal and tumescent ecstasies, although quite a few varieties of tumescent experiences were distinguished from one another.

Thus, categorizing peak experiences as ecstasies does not reduce them to a single mode of experience. A precise definition of peak experiences requires some conceptualization of ecstasy which spotlights the unifying aspect of these experiences while honoring their differences at the same time. Previous efforts to define ecstasy (e.g., James, Bucke, Laski) have attempted to do so by specifying a list components which must be present to qualify an experience as an ecstasy. Although Maslow could, and did list many components of ecstatic experiences, he grew ever more dubious about the possibility of defining the experience this way. He was most satisfied with the vague definition, "moments of highest happiness and fulfillment" (1962, p. 69). This definition was least likely to exclude without a hearing the variety of experiences considered ecstatic by the persons who reported them. Too often, ecstatics who are jealous of their own preferred modes of ecstasy have

specified necessary components for ecstasy in order to disqualify the experiences of others. But a listing of phenomena from a variety of ecstatic experiences has the opposite effect; it invalidates sectarian definitions.

Components of Peak Experiences

Breaking down peak experiences into sundry components results in at least the following sorts of elements: sensory and physiological, attentional, perceptual, cognitive, motor, social, and affective. These categories are fairly distinct from one another and modestly adequate to contain the phenomena of ecstatic experience reports. Individual studies of ecstasy have emphasized different components, depending partly on the triggers inducing the experiences and partly on the viewpoints of the investigators. Physiological responses have figured predominantly in research on drug experiences and on meditation, which are more sustained and reproductible under laboratory conditions than most other ecstatic experiences. Sensory elements abounded in the pleasure experience reports of Buchenholz and Naumburg, for their questionnaire had asked for descriptions of pleasurable "sensations." Attentional and perceptual elements overshadowed other aspects of peak experiences in Maslow's accounts. Cognitive features were

most marked in Laski's analysis of ecstasies. One could go on to specify which components were most notable in each investigation of such states. The result would be merely a reaffirmation of the variety of peak experiences.

The components which have been specified can be subdivided into smaller parts. Perception in peak experiences, for instance, is characterized by perception of an object independent of any utility it may have, perception ignorant of time and space, perception of the stimulus as both concrete and abstract simultaneously, perception of the stimulus as existing autonymously, perception of the stimulus as something absolutely unique in the world, and perception of the stimulus as continuous with and containing self and the world. All of this differs markedly from perception in ordinary moments. Ordinarily objects are seen as part of a larger gestalt, as objects belonging to classes, as objects having utility, as objects existing in time and space, as objects separate from self, as objects composed or parts and subject to decay. The type of perception characteristic of peak experiences does not fit the ordinary requirements of functionalistic, gestalt, or information theories of perception. It is a bit more like the physiognomic perception described by Werner (1940).

Like perception, other components of peak experiences can be broken down into smaller elements. These smaller elements may be more or less independent of each other. This can be illustrated from the variety of cognitive functions operating sometimes alone, sometimes together in peak experiences. In his early reports Maslow described the cognition in peak experiences as passive. Further research showed that a variety of active cognitive functions may also be present in peak experiences. Descriptions of music listening experiences and creativity experiences, to name only a few, often contain strong active elements of analytic and problem-solving cognition. The perception of pattern in music, which information theorists regard as the essence of aesthetic responses to music, requires embracing so much of the total composition and so much of the style to which the composition belongs that it is not merely a perceptual activity but a complex cognitive behavior involving memory, analysis, classification, prediction of events in the music, etc. To consider yet another type of cognition, James specified that the noetic quality of ecstatic experiences was insight. He was discussing religious experiences, but the same may be said with greater emphasis about ecstatic reactions to creativity. The psychoanalytic approach to peak experiences emphasizes processes of association and symbolization. Associations and symbols are said to generate

the affective component, as so clearly happens in hallucinogenic experiences.

Matching a list of ecstasy components against a variety of ecstatic experience reports, one soon realizes that the components can be as conspicuous by their absence as by their presence. In one report the essential happening may be a cascade of cognitive activity; in another it may be a total cessation of cognitive activity. Of all the components, the only one which appears rather reliable is an affective component of joy. Yet even joy is denied in some cases, particularly in some meditation accounts. This needs closer scrutiny.

Joy in Peak Experiences

Specifying that peak experiences nearly always contain the affect joy does not greatly simplify understanding the experience, for the psychology of emotion, particularly of positive emotions like joy, is a kaleidoscope of competing theories bounded by thin empirical data. Emotion has been approached from a neurophysiological point of view of perception (Solley & Murphy, 1960), of consciousness (Bull, 1951), and of cognition (Schachter & Singer, 1962). Some form of adaptation level theory has been invoked frequently

(Helson, 1964; Berlyne, 1960; Duffy, 1962; Tomkins, 1962; Waelder, 1965). The theories that have dealt most extensively with the affect joy are the psychoanalytic theory, Schachtel's (1958) theory, and Tomkins' neurophysiological theory.

It might be more accurate to say that Freud discoursed extensively on pleasure rather than joy. However, psychoanalytic theory has since expanded its consciousness to take account of more subtle experiences. The classical psychoanalytic model of personality is an energy system seeking to void itself. Stimuli from the outside and inside bombard the person and generate energy which invariably takes the form of "tension." This tension is the driving force of the personality. What it is driving at is discharge. The life of the organism is a struggle for a state of tensionlessness. Pleasure is the effect of tension being released from the system. Schachtel has summarized Freud's view:

> Freud emphasized...pleasure in relief from stimulation and tension, that is, the pleasures of rest and relaxation. It is a tribute to the consistency and depth of his thought that by this view he was driven to the inevitable conclusion that the pleasure principle, as conceived by him, is in the last analysis identical with the death instinct, the wish to return to a state of complete quiescence, to the state of inorganic matter. In this view, life is seen as pain, disturbance, and want; death as relief from these; and the pleasure principle joins forces

> with the death instinct or becomes its main manifestation in seeking to abolish and to escape from the painful stimulation of life (1958, p. 57).

Neo-psychoanalysts, such as Schachtel himself and Waelder (1965), have taken advantage of studies of infant perceptual preferences to modify the theory in one way or another. One view is that the infant always acts to release tension but that with increasing maturity the person may come to seek moderate increases in tension level (Waelder, 1965). Another view, represented by Schachtel, is that the organism at any age seeks an optimum level of stimulation, which is not the zero level of the classical psychoanalytic view.

Tomkins' theory of joy resembles the Freudian view in its emphasis on energy being released from the nervous system but is set in the context of a more complex model of personality. Tomkins (1962) postulated that personality is an organization of five subsystems: homeostatic, drive, affect, cognition, and motor. The homeostatic system is mostly unconscious and physiological. The drive system provides information about the needs of the organism. The affect system acts an an amplifier, amplifying motivations from the homeostatic and drive systems. The cognitive system serves communication, and the motor system generates

action. Experience produces a distillate, called the Image by Tomkins, which fulfills the function of a central blueprint orienting the person to the future and guiding his responses.

As for affects, Tomkins distinguished eight, each of which has a range, e.g., interest-excitement, enjoyment-joy, fear-terror. Affect is less tied to specific objects than drives and is not reduced by satisfaction as drives are. Since affect is more general than drive and less extingusihable, it has a more significant role than drive. It is the primary motivational system. It provides the orientation for cognition, decision, and action. On the neurological level, specific affects correspond to particular changes in the pattern and density of neural firing. The face is the primary site of affect expression, although affect is expressed secondarily in bodily and visceral responses too.

The affect joy is often intermingled with the affect excitement. There is a reciprocal relationship between them, such that one can enjoy excitement and be excited by enjoyment. Excitement is caused by a sharp increase in neural firing. Joy is caused by a sharp decrease in neural firing. Through familiarity excitement can be reduced to joy, then perception of new novelty in the object can revive

the excitement, and so on. The smiling response is the automatic behavioral correlate of joy.

Tomkins' concept of an affect system as an amplifier system attempts to generalize the influence of affects. But it is curiously combined with such specific neurological and behavioral responses as to create an anomoly in his personality theory. Further, it is difficult to substantiate the theory in terms of the responses to particular stimuli. The complexity of visual stimuli, for example, is related to the density of neural firing in the perceiver; but the relationship between stimulus complexity and affective responses is not linear as Tomkins' theory would have it but rather curvilinear (Berlyne, 1969).

Schachtel's theory of joy is linked to a theory of a particular type of perception. The type of perception he associated with the affect joy closely resembles the type of perception characteristic of peak experiences, which is not surprising since Schachtel acknowledged the influence of Maslow.

Two types of perception were distinguished by Schachtel, the autocentric and allocentric modes. Autocentric perception centers on the experiencing self. The infant,

fully embedded in its surroundings and unable to distinguish the surroundings from itself, perceives in an autocentric way. With maturing, allocentric perception develops. It is perception centered in the object perceived. Autocentric perception is pleasure/displeasure oriented and the sensations arising from it are experienced locally in or near the particular sense organs, not centrally. Allocentric perception includes vision and audition. It is primarily reality oriented but also includes a pleasure/unpleasure dimension encompassing those pleasures which are the result of central processes of perception. These two forms of perception and the pleasures they generate exist on a continuum.

The affect joy is a result of allocentric perception. The more original the mind and personality of the perceiver, the more likely he is to have an allocentric perception of objects. A person who has developed this form of perception to a high degree is said to have an "allocentric attitude." Schachtel offered this description of allocentric perception:

> The perceiver in allocentric perception is open to the object with all his senses and sensibilities and shows a complete absorption of interest in it, which, as long as it lasts, has a timeless quality, i.e., it fills the perceiver so completely that he does not keep track of time, just as he is oblivious of everything else while he is fully engaged in the encounter with the object of his perception. (1958, p. 179)

> The fullest perception of the object, i.e., the allocentric perception, is characterized by an inexhaustible and ineffable quality, by the profoundest interest in the object, and by the enriching, refreshing, vitalizing effect which the act of perception has on the perceiver. The main reason for this...lies in the fact that the fully allocentric perception (especially of nature, people, and the great works of art) always breaks through and transcends the confines of the labeled, the familiar, and establishes a relation in which a direct encounter with the object itself, instead of with one or more of its labeled and familiar aspects, takes place. (1958, p. 177)

In Schachtel's theory joy is a byproduct of a particular type of perceiving. Other theories that begin with perception end with the emphasis on the nature of the object perceived (Solley & Murphy, 1960; Berlyne, 1969; Arnheim, 1969). Presumably, for Schachtel any object could be perceived in such a way as to produce joy. Information, stimulus-response, and gestalt theories require certain characteristics in the object; these characteristics, not any peculiarity of the act of perceiving, produce the response which includes the affect joy. Schachtel's theory accounts for the ability of human beings to take joy in almost anything and, in doing so, fits with the evidence from peak experience reports. It also makes sense of the fact that the only ecstatic states sometimes lacking in the affect joy are meditative states which deliberately eliminate the act of perceiving.

Schachtel's theory of joy may apply quite well to tumescent ecstasies triggered by perception of some object. But it does not fit the joy described in withdrawal ecstasies or such releases of tension as listeners sometimes experience in following musical compositions. Schachtel's model of joy on the one hand and the models of Freud and Tomkins on the other may not actually be two competing models of joyous experience but rather models of two different kinds of joyous experiences. They could be referred to as tumescent joy and cathartic joy respectively.

Peak and Nadir Experiences

In addition to emotionless states described in some meditation accounts, there are other ecstasies which contain no joy. The simplest examples are aesthetic experiences of sadness, pathos, or even terror. Hedonistic theories of aesthetics fail, according to Koestler (1964), because they cannot embrace the undeniable aesthetic pleasure arrising from dissonance in music and painting and from apprehension of such thematic contents as Grunewald's crucifixion scene. Aesthetic pleasure does not depend on sensory pleasure. Koestler did speak of pleasure in such tragic or dissonant art, but the pleasure did not seem to be affective. His

explanation demanded a cognitive type of pleasure made possible by a self-reinforcing perceptual system such as Solley and Murphy (1960) have proposed.

It may not help conceptual clarity to speak of a response which was not experienced as pleasure as pleasurable. However, people do return to the source of aesthetic experiences of dread, sorrow, or terror to experience them again, and it is a frequent assumption that the human organism would not seek out a second time something that was not pleasurable the first. Further, even in common speech it is not unusual to fall into the oxymoron of saying that one really enjoyed a film that aroused unutterable terror. What strikes the reader of Aristotle's Poetics is the concentration on the experience of the tragic and the cathartic model of aesthetic responses. Freud was a devotee of Greek architecture, sculpture, and literature, so it is not surprising that psychoanalytic theory incorporated the Aristotelian model of aesthetic response as the catharsis of inner fears and dreadful wishes.

Some psychotherapies and human potential encounters have emphasized cathartic experiences. Heider (1974) structured human potential encounter group sessions to produce catharses. Either a past trauma or a present painful

situation was allowed to dominate consciousness and be expressed fully. Typically, immersion in and expression of the painful experience were followed by a joyful peak experience of freedom from tension and from the negative affects of the painful experience. Heider noted that two other stages generally followed in temporal order: a "valley" or depression experience, then a return to normal.

The same process of encounter with an actual painful situation resulting in some resolution of the situation and then a peak experience is manifest in Frankl's (1963) description of logotherapy. Shoben (1964) and Bugental (1965) have proposed encounter with the tragic in existential psychotherapy as a means to making greater joy possible for the individual. Most dramatic of all has been Richards, et al. (1972) use of properly prepared and guided psychedelic experiences with terminal cancer patients. The patients, 23 females and 8 males, invariably had peak experiences which left them less depressed, less anxious, less fearful, less complaining, more tolerant of pain, and more acceptant of immanent death.

Experiences of the tragic have been labeled "nadir experiences" (Grof, 1972; Maslow, 1964; Thorne, 1963). The nadir experiences which have been described all issue a

joyful "afterglow"--to use Laski's apt word. There are, of course, tragic experiences which do not yield to joyful resolutions. But if the results of Richards, et al. with terminal cancer patients can give testimony, it is that the resolution of tragic experience depends less on the objective nature of the tragedy than on the preparedness and perception of the person.

When tragic experience resolves itself into joy, the joy itself appears to be more of a withdrawal experience than a tumescent ecstasy. It is a calm, peaceful release from tension. The joy of cathartic afterglow follows the models of psychoanalytic theory and of Tomkins. It is the joy of tragedy overcome, of escape from tragedy. When these experiences, whether triggered by aesthetic or actual encounters with the tragic, are reported as joyful, it is the emotion of the afterglow that is being described.

Afterglow joy is described also in reports of meditation experiences which themselves were devoid of emotion. Since some kinds of meditation are in fact techniques for reducing tension, one would expect the cathartic model of joy to apply. Meditators have often been more concerned than aesthetes about drawing a line between the experience itself and its afterglow.

Tragic experiences of a cathartic sort belong with peak experiences insofar as they contain a peak experience of release or escape from the instigating tragedy. The release may consist of a change in the person's perception or attitudes more than a change in a tragic reality. The idea of a peak experience being contained within a larger experience with other and often contradictory phenomenological features is familiar already from consideration of peaks within drug experiences.

Existential psychotherapists have emphasized that experiences of tragedy are vital to the process of psychological growth. Maslow himself told of undergoing such a transforming tragic experience.

> I've speculated if it were possible to give an experience of death and then a reprieve that people might enjoy life more. My heart attack brought about a real confrontation with death. Ever since then, I've been living what I've been calling "the post-mortem life." I've already gone through the process of dying, so everything from then on is gravy. (In Krippner, 1972, p. 119)

At least an aesthetic experience of pain may be essential to self-actualization, especially for a person who might achieve such comfort in his own life as not to notice otherwise what pain there is for others. It may be, too, that cathartic experience with its component withdrawal ecstasy is more valued and more easily achieved by some

persons than the tumescent ecstasy of other peak experiences. People do differ in how frequently they desire and seek out experiences of dread, sorrow, compassion, and even terror.

Nadir experiences need not have a cathartic effect. Tragic experience often ends in depression, anxiety, alienation, even stigma. Such "unresolved" nadir experiences do not overlap with peak experiences. Nor do nadir experiences which dissipate over an extended period of time without a specific cathartic experience. It is the cathartic experience which is a peak. The tragic experience without catharsis merits separate consideration; it is not within the scope of this study.

Unusual Functioning in Peak Experiences

Joy, then, appears to be a reliable component of peak experiences, although it may be the afterglow of cathartic tragic experience. But joy is not the only component of peak experiences. Sensory, attentional, perceptual, cognitive, motor, social, and other affective components also occur, however much they vary from one experience to another.

When these phenomena appear in peak experiences, they

do not appear as normal or ordinary functioning of the organism. They tend to be in an unusual state of functioning. Cognitive behavior, for instance, may be characterized by unusually high or low intensity in peak experiences. In studies using the Mood Adjective Check List, Nowlis (1965) found elation correlated with surgency and vigor. The surgency and vigor are refracted into both physical and mental activity. The mind seems to be buzzing and blooming in a way that resembles James' classic description of the consciousness of an infant. This mental hustle and bustle often seems to be spontaneous and is passively entertained by the person. So it happens in some peak experiences. Yet there are other peak experiences in which the mind moves in slower motion and the perception of the world is like watching one of those cinematic records of a flower unfolding, stretching, and spreading its petals. Thus, elation is not always accompanied by cascading cognition. In meditative states cognition may be brought to a dead standstill.

In peak experiences the sensory, perceptual, social, or other behavior of the organism is unusually intense or unusually quiescent or unusual in light of the stimulus situation. But this unusual state of functioning is positively valued by the person. Rather than being

disavowed as abnormal, chills, fantasies, loss of time and space, etc. are accepted as unusual but good. At least part of the joy of peak experiences is the joy of functioning in a positively valued, unusual manner. If the unusual functioning were not valued, the person might construct a frightening or disillusioning experience out of the material for a peak experience. Tolerance for novelty, ambiguity, loss of control, self changes and revelations may be as important for any other peak experience as for beneficial psychedelic drug experiences.

What modes of functioning a particular person values and how these modes of functioning came to be valued presumably are related to the person's biology and history. Warmoth (1963) has discussed peak experiences in terms of individual wishes within the confines of culturally delimited values. To him the peak experience is essentially a wish fulfillment, the strength of which is inversely proportional to the desire at the moment for other gratifications. According to Warmoth, the "wish system" itself is integrated and reorganized by peak experiences. Maslow's way of saying this was that the individual's value system is integrated and reorganized by peak experiences. People do report changes in their values as a result of peak experiences.

Hence, values stand at both the front and back doors of peak experiences. Maslow's concern with values was a necessary consequence of his study of peak experiences.

The relationships of even sensory and physiological responses to the values of individuals has been illustrated by the research on meditation and on drug experiences. Intentionality and expectations help determine events within the organism. An experience which is satisfying, even ecstatic for one person can be distressing to another person. This can be seen, for instance, in the individual responses to the hallucinatory effects of some drugs.

The values of the individual may be as important as the differences in triggers in explaining why the unusual functioning in peak experiences may be either a deactivation or intensification of ordinary functioning. Satori and samadhi are a contrast in blocking and focusing attentional and perceptual processes. The desired mental state of a Yogi would be a disaster for a Zen master, and vice versa. In many ecstatic experiences the fuse is blown on motor responses and a perfect stillness is cherished; but other ecstatic states involve the voluntary or involuntary intensification of motor responses, as with whirling dervishes or people who cannot stop their fingers and feet

when caught up in music. Similarly, social responses may be completely absent or greatly intensified. Nature experiences often include an exhilarating sensation of aloneness; group affinity experiences have the desire to remain in the presence of others at the core. Some meditators prefer to be alone; others derive much of the experience's value from the presence of fellow meditators (Osis, et al., 1973).

How is the unusual functioning of peak experiences to be described? Freud classified the oceanic experience as a regression. Kris (1952) mollified the psychoanalytic teaching by treating such experience as a voluntary regression in service to the ego. It was Jung (1964, 1971) above all others who attached positive value to regressions of this sort. He pushed the experience back beyond the individual womb to racial origins of a collective unconscious condensed into universal symbols in the dreams and drawings of cave dwellers. It is now a commonplace when speaking in psychoanalytic tongues to call ecstatic experiences regressions in service to the ego. The metaphor implies that the perceptual and cognitive development of the organism becomes undone in ecstasy. The implication is that the ecstatic organism in its functioning resembles an infant. Despite some loose comparisons which can be made

between an infant in a pre-ego state and the dissolving of ego boundries in ecstasy (where it is at the same time a paradoxical expansion of ego to the boundries of existence), there are no data adequate to construct a case that infants experience the phenomena described in accounts of ecstasy. It was the absence of a future and the consequent reduction of all things to past which required psychoanalysis to treat ecstasy as a regression.

If a temporal-spatial metaphor be needed for ecstasy, Bucke's metaphor of a leap forward might be more appropriate. The functioning of the organism in such experiences is advanced to ways which are found to be enhancing even in their residual afterglow. Growth is a more accurate description than regression for peak experiences. They are positively valued changes in the way one functions, although the abiding changes are but scant residues of the dramatic transformations of the peak experience moments. When Maslow wanted to stress that peak experiences were leaps forward to positions of self-actualization which could not be held all at once but which could be attained progressively, he called them "acute identity experiences." Peak experiences are in humanistic psychology what the ego-ideal finally was in psychoanalytic psychology. They reveal the person at his best. And they help him to become what they reveal.

The Effects of Peak Experiences

Maslow hypothesized that peak experiences have effects which perdure over an extended period of time. Indeed, since the peak experience tends to be sought out time and again, the effects should be cumulative over a long period of time. As will be seen, the effects of the experience are in essence an extension of the experience itself. The act of peaking becomes the habit of peaking, and the affect waxes into mood.

Maslow's estimation of the effects of peak experiences changed as his research progressed. From the beginning he noted both enhancing effects and dangers possibly inherent in peak experiences. The enhancing effects were gathered together under the rubric of peak experiences as acute identity experiences. These are experiences of transcending one's usual mode of functioning, which are also referred to as experiences of growth or self-actualization. During the peak experience the person is closest to his ideal, ideosyncratic self. He feels more integrated, too. The feelings of individuality and integration carry over into the period following the experience. As the person develops into a more individual self, paradoxically he is able to fuse more with the world around him, for he experiences less need

to be defensive. A rise in self-esteem is at the root of these changes. The person also feels more in possession of his powers; he functions more effortlessly and more fruitfully. A sense of being the active, creating center of one's life, not the plaything of uncontrollable circumstances, dawns on the person.

Besides changes in self-image and self-awareness, behavioral changes flow from the peak experience. The person is freer from blocks, inhibitions, fears, reservations, and self-criticisms. His behavior is therefore more spontaneous and expressive. Maslow observed an unusual degree of creativity in high peaking persons. It was not the creativity of the skilled artisan, but a spontaneous seeking and enjoyment of novelty in all aspects of one's life. No special skill might be developed, yet everything seemed to be done and experienced more imaginatively. Peakers were less enculturated, less embedded people, insofar as they did not feel constrained to stay within the bounds of non-essential social conventions.

Peak experiences seem to presuppose that the basic needs of the organism are being fulfilled. As a result, the person who has frequent peak experiences perceives things less from the viewpoint of needs. He savors the food that

others eat quickly. His behavior is self-validating experiences, not means to ends. Since the peak experience is felt to be an undeserved grace beyond the basic needs of the organism, the peaker comes to see the world as friendly and generous. He is optimistic. In these respects he resembles the aesthetic man of the Allport-Vernon-Lindzey Study of Values (1970). But the aesthetic man as defined by that measure pits beauty against truth, nature against technology, the individual against social systems. The peaker in the peak experience itself and in his subsequent daily living has transcended these antagonisms.

The hypothetical dangers of peak experiences described by Maslow at an early stage in his research are familiar to the contemporary reader from popular literature on drug addiction. The principle danger was that the passive, receptive attitude of peak experiences might make effective practical action impossible. Some of the specific ways in which the passivity of the peak experience might become a danger to the person were by blunting his feeling of responsibility to others, by making him fatalistic in his view of the world, by leading to an undiscriminating acceptance of other persons and other values, by diminishing attitudes of practicality. However, on the empirical side Maslow (1970a) eventually found the opposite to be the case.

People who enjoy frequent peak experiences turned out to be more capable of effective action and practical judgment than people who do not.

Although the hypothesized dangers of peak experiences were not substantiated by later research, the possibility of peak experiences having no evident good or bad effects at all did emerge. Both Maslow and others have reported that the expected good effects do not always materialize. Different reasons have been given for the absence of these good effects. Maslow himself, perhaps influenced by Laski, suggested that the good effects fail to occur when the peak experience lacks an active, cognitive dimension.

> There were peak experiences which seemed to be empty of cognitive content. They were just emotional bursts, very happy and ecstatic, but passive. My attention was called to this partly by the fact that if you witness heaven in a peak experience, why the hell isn't everybody getting better all the time? We should soon turn into a race of angels. Well, obviously I was able to get reports of peak experiences from extremely sick people and from sons-of-bitches. So this peak experience is not an exclusive possession of "nice guys." (In Krippner, 1972, p. 115)

Another explanation for the absence of good effects from peak experiences has been proposed by Heider (1974). Like Maslow, Heider began with the persuasion that peak experiences are always beneficial but was gradually led by

his research to conclude: "Even though catharsis produces peaks easily, the effects of these peaks seem random; no one can tell who will really change and who will merely taste the possibility for change" (p. 41). Heider's explanation was that some peak experiences may be had too quickly, and that suddenly precipitated experiences fail to transform the person. Hence, while other researchers may concentrate entirely on facilitating peak experiences (e.g., Bindrim, 1968), Heider, confident from his work with cathartic encounters that they could be provoked easily, has turned his attention to postponing peaks. He has hypothesized that the lengthy traditional "spiritual disciplines," such as meditation, may be more likely to engender or support the good effects of peak experiences. Others who have developed a technology for causing peak experiences, particularly those employing psychedelic drugs (e.g., Masters & Houston, 1966), have likewise come to realize that suitable preparation is necessary if the experience is to be enhancing. The religious mystical lore has always said so, even when it has meant producing volumes of explanations arguing that sudden conversions are not really so sudden.

One of the facets of personality which might be most sensitive to peak experience effects may be mood level. The

relationship between momentary experiences and enduring moods has not been the subject of extensive investigation. Still, it seems likely that moods are the residues of individual experiences and that they play a dynamic role in disposing the persons towards particular types of experiences. The person who has frequent peak experiences might be expected to have a more positive mood level than others.

Investigations by Wessman and Ricks (1966) and Gorman (1971) ascertained that individuals do have characteristic mood levels and identified some of the correlates of these mood levels. Some persons have a characteristically high mood level, indicated by feelings of elation, surgency, and energy. Other persons seem to maintain a low mood level, which has the negative flavor of a continuous struggle against depression. On their best days the depressed people rise no higher than the elated people fall on their worst days. Wessman and Ricks referred to the characteristically high people as "peakers" and to the typically low people as "troughers."

Within each group there were both stable and variable people. That is, a person's mood level may exhibit practically no fluctuations or may fluctuate widely within the range of the group to which he belongs. Nowlis (1965)

found that mood reports indicated more stability when they were reported regularly over a period of weeks. There may be heightened variability when a person first begins reporting his moods, due to his inexperience at identifying his feelings and labeling them. However, the subsequent stabilizing of reports is not so monolithic as to blot out the differences between steady and variable people.

The average daily mood level of peakers seems to be related to their best experiences of the day, while the average mood of troughers seems to be related to their worst experiences. An interaction between mood level and individual experiences seems to be indicated clearly. The correlates of high and low mood levels were summarized thus by Wessman and Ricks:

> The happier men were found to be optimistic in their expectations and possessed high self-esteem and self-confidence. Particularly there was ample evidence of their success and satisfaction in interpersonal relationships. They possessed what is hypothetically termed ego-strength and a satisfying sense of identity. There was excellent organization and direction to their lives, with a distinct sense of continuity and purpose and the necessary mastery of themselves and interpersonal situations to attain their goals.
>
> The unhappy men, in contrast, were pessimistic in their expectations and low in self-esteem and self-confidence. They were unsuccessful and dissatisfied in their interpersonal relationships, feeling isolated, anxious, and guilty. They showed evidence of poor ego-integration, with a low sense of personal identity or an unsatisfactory one. They

> were dissatisfied and felt inferior in their academic performance. They lacked a sense of continuity and purpose, and were less successful in attaining the necessary organization and mastery to achieve goals. (1966, pp. 106-107)

These descriptions leave little doubt about the importance of peak experiences, if, as seems to be the case, they are what generates the peaking mood. Maslow's most optimistic hypotheses receive support from these findings, while his more pessimistic hypotheses do not. The significance of Maslow's peak experience research was highlighted by Wessman and Ricks in their case study of a typical happy man. The second largest factor, accounting for 24% of the common variance, in a factor analysis of the happy man's daily mood reports was labeled "Outbreaks of Joy." The daily high values on all the mood scales except those for love and sex loaded quite highly on the Outbreaks of Joy factor. The person's descriptions of his outbreaks of joy were descriptions of peak experiences with vigorous cognitive components.

The differences between stable and variable persons in both the high and the low mood groups add a dimension Maslow had not explored. The stable men seemed to be persons who had achieved a relatively fixed style of living and firm identities, although they were weaker in

intra-personal and inter-personal awareness. The variable men were livlier, more open to their feelings, and more settled in their ways, but they exhibited weaker identities and more diffuse personality structures. In Schachtel's terms, the stable men were more embedded in the social-physical world.

A possibly potent distillate of peak experiences, and possibly a catalyst for other effects, is the mere memory of the experience. Warmoth (1965) has likened the role of peak experiences in the individual's life history to the role of myths in a society. He limited his discussion to the myth as a rationalization for evil. In this sense the peak experience may engender overbeliefs, particularly the optimism which James and Bucke spoke of, which enable the person to sustain or even derive value from tragic experiences.

Another category of myth which might have analogies with peak experiences is myths of origins and return. Societies tend to generate myths which place their origins in a golden age and which go hand in hand with a myth of return to that golden age, e.g., Christendom's paradise lost and regained, American pioneer days and John Kennedy's "New Frontier," the Napoleonic era and Charles de Gaulle's

"restoration de France." Visions of utopia are themselves natural offspring of peak experiences, as seen historically in the American and British transcendentalists and other "enthusiasts" (Knox, 1950), as found by Laski in ecstasy reports, as constructed by Maslow himself in his vision of "the synergistic society" (1961, 1964).

Even the peaker who does not elaborate a public utopia may sustain a personal belief that he has undergone a rebirth, that he has entered the state of grace, as Maslow and the religious mystics called it. He may attribute basic changes in his life, such as the choice of a profession, to a peak experience he has had. Complementing this belief in a significant past personal event is a belief that the event can be experienced again. The person may look forward or even take some actions towards experiencing again that hour of rebirth. One of the most common elements in peak experience reports has been the person's desire to return to that moment of a personal new creation.

Another mythical feature of the peak experience memory is the common belief that the experience was a grace, unmerited and unattainable by one's own actions alone. The frequent belief that the peak experience is a grace and, therefore, that it cannot be engineered does appear to be a

myth or overbelief in light of the evidence from drug experiences, transcendental meditation, cathartic encounters, aesthetics, etc. Belief in peak experiences as matters of grace functions like a myth in preserving the value of the event. Personal events acquire greater value by being attributed to greater causes. The peak experience may be attributed to the dynamic inherent goodness of the world. That is why it generates optimism.

The overbeliefs or mythical elaborations of peak experiences are cognitive distillates of these experiences. They are relatively permanent and they are apparantly active like other cognitive structures, such as attitudes, in determining the subsequent behavior of the person who has peaked. The personal myth of the peak experience may underlie some of the more specific longrange effects attributed to the experience. Perhaps, too, constructing the personal elaboration of the experience may be what is necessary for the experience to have its full effects. The memory of the peak experience, transmuted into a personal myth, sustains the growth germinated by the experience.

Peak Experiences and Aesthetics

Maslow said little about aesthetics; but what he said, he said emphatically. One could assert without much fear of contradiction that aesthetics may produce peak experiences. Maslow, however, claimed that peak experiences produce aesthetics. Peak experiences were identified as the source and norm of aesthetic values, not to mention other values. Maslow implied that a whole new approach to aesthetics might grow out of a study of peak experiences.

In a speech to music teachers, from which excerpts follow, Maslow (1971) reported that classical music and sex were the most frequent triggers of peak experiences. To Maslow sexual orgasm furnished a simple model of all peak experiences. Laski (1961) had also found classical music a frequent trigger for ecstasies. She did not have any reports of ecstasies triggered by sex, but that may have been the result of her asking people to describe "transcendent experiences." She regarded sexual references in descriptions of other kinds of ecstasies as clues to counterfeit ecstasy reports if the person giving the account was sexually experienced. For in her samples only sexually naive persons used sexual analogies in ecstasy descriptions. Sexual abstinence led to overvaluation, she concluded. That could

have been the case with Maslow too. After his heart attack Maslow had a considerable fear of sexual excitement (see Wilson, 1972). As far as classical music was concerned, Maslow as a child jousted unsuccessfully and apparently bitterly with a piano teacher for a while but later, at the age of eighteen, he became infatuated with listening to classical music. It was a source of continuous peak experiences for him until late in life when he complained of less responsiveness due to overfamiliarity.

Maslow's speech to the music teachers contained a quotation from Archibald MacLeish, from which Maslow began a discussion of peak experiences as the criterion of good art.

> "It is the work of art that creates the human perspective in which information turns to truth." I deny that, and we had better argue about that. We must have some criteria for distinguishing good art from bad art. They do not yet exist in the realms of art so far as I know. They are beginning to exist, and I would like to leave one hint, an empirical hint. A possibility is beginning to emerge that we would have some criteria for discriminating good art from bad art....
>
> In our investigations of peak experiences, we found many, many triggers, many kinds of experiences that would set them off. Apparently all people, or almost all people, have peak experiences, or ecstasies.... I want to report that the two easiest ways of getting peak experiences (in terms of simple statistics in empirical reports) are through music and through sex....
>
> For our purposes, let's proceed to music in this relation. So far, I have found that these peak experiences are reported from what we might call

> "classical music." I have not found a peak experience from John Cage or from an Andy Wahol movie, from abstract expressionistic kind of painting, or the like. I just haven't. The peak experience that has reported the great joy, the ecstasy, the visions of another world, or another level of living, have come from classical music--the great classics. And I must report to you that this melts over, fuses over, into dancing or rhythm. (Maslow, 1971, pp. 642, 646-647)

Thus, to Maslow the test and the value of an artistic creation was its ability to produce peak experiences. Although the range of art stimuli in his reports was restricted to classical forms, there are people who respond strongly and positively to popular, modern, and controversial art forms he repudiated. By his own standard, any art form which could produce peak experiences would have artistic value.

Up to now there has been no systematic phenomenological study of responses to music, visual art, or any other art form. Apart from more general investigations of ecstatic or peak experiences, psychological literature contains only a posthumous note on aesthetic experience by Andras Angyal (1962). He noted that in the aesthetic experience objects are seen as if for the first time. The object tends to be viewed from several viewpoints successively, each viewpoint adding to the experience. Total gestalts are seen, not the

parts of aesthetic objects. Order and meaning are perceived in the object and in its surroundings. Thought, feeling, and action are all affected by the perception.

To continue with Angyal's description, one's feelings and thought acquire clarity and definiteness as one focuses on the aesthetic object. The emotional experience is immediately translatable into thought. This translation into thought does not disturb or diminish the feeling; on the contrary, it increases the feeling. Aesthetic perception seems not to distort the object but rather to be a seeing of the object as it truly is for the first time. The mind finds symbols in the object. For example, a barren tree may become symbolic of a deeply rooted man, the arabesque of its branches symbolizing how he stretches and turns to capture the sun and how he has fared with the winds. In ways such as this, "intellectual formulation adds to the emotional enjoyment, and the emotional enjoyment facilitates the formulation of the thought" (p. 124).

Angyal's description of aesthetic experience was a personal memoir, not the result of any empirical research. Yet it stands alone in the small but steady stream of psychological literature on aesthetics. Other reports, as will be seen, have been much narrower in scope.

CHAPTER 3:
RESPONSES TO MUSIC

There is a body of psychological literature on aesthetics only because the topic has attracted the interest of a few workers at a time over the extended period of more than a century. Many of the essential references are dated from long ago. Sometimes the experimental methods and data analyses fall short of present norms. In this survey attention will focus on research concerning responses to music. Other investigations, such as those relating aesthetic judgments to personality characteristics, will go unnoted here. After reviewing studies on physiological responses, perceptual and motor responses, and affective responses, the major psychological theories of responses to music will be capsuled.

Physiological Responses

The physiological indices most commonly used to measure responses to music have been GSR measures, respiration, heart beat, and cardiovascular responses. Wechsler (1925) took GSR readings while subjects listened to music. The subjects' responses to music were less pronounced than responses to the sound of a gong or prick of a pin, but the

music response curves did exhibit frequent excursions as if to specific excitations. Misbach (1932), using tones, not music, reported a lowering of GSR resistance at the sound of unpleasantly loud tones. Zimny and Weidenfeller (1963) asked 18 college student subjects to say which parts of the music being played they found (1) exciting, (2) neutral, or (3) calming while GSR was being recorded. The GSR showed a pronounced decrease in skin resistance to exciting parts of the music but no changes for neutral or calming parts. Phares (1934) had found GSR measures of little value in analysis of musical appreciation. But even in his results amount of skin resistance was positively related to verbal reports of pleasant feelings. Although the findings from these studies are reasonably consistent, it is distressing from an aesthetic point of view to have "loud," "exciting," and "unpleasant" sounds lumped together as the kinds which decrease skin resistance. The neater conclusion is that pleasant sounds increase skin resistance.

Musical training affects physiological responses. Dreher (1948) discovered that musically trained subjects showed a greater rise in level of skin resistance before, during, and after listening to music than non-trained subjects. Trained subjects likewise showed greater momentary decreases during the music. In addition, trained subjects

exhibited a relationship between GSR and affective responses on the Hevner Adjective Check List, which untrained subjects did not. The untrained group was selected for its poverty of training and lack of interest in music. However, even these untrained subjects displayed some GSR fluctuations while listening to music.

As for respiration, Gamble and Foster (1906) reported that loud music accelerated breathing rate and decreased regularity while soft music increased regularity. Major mode passages accelerated breathing more than minor mode ones. Breathing during music resembled breathing during certain implicit reactions in rate and amplitude but tended to be less regular. Weld (1912) reported pronounced irregularity in rate and amplitude of breathing while listening to music. These changes corresponded to intensity of feelings as reported verbally. Ellis and Brighous (1954) studied respiration responses in 36 college students. Respiration increased while listening to the music, and especially for the most lively number, Liszt's Hungarian Rhapsody No. 2. The effects of music on respiration seem to be agreed upon: music causes breathing to be increased in rate and more irregular, especially if the music is loud, fast, or in the major mode. No one has ventured to suggest for music, as some have for meditation experiences (e.g., Bloomfield, et

al., 1975), that the breathing changes may be responsible for some other components of the experience.

Weld (1912) found that during music cardiac activity tended to increase; changes in the distribution of the blood supply throughout the body were noted. In another cardiovascular study, Washco (1933) used four types of musical compositions, (1) ones dominated by melody, (2) rhythm, (3) harmony, and (4) a mixture of the first three. Rhythm accounted for the greatest rises in pulse and blood pressure. Hyde (1927) measured pulse rate, blood pressure, and velocity of blood flow. Subjects who lacked a fondness for music showed no changes. Likewise when a subject disliked a particular piece. For those who liked music, Tchaikovsky's Pathetique produced a lowering of responses and Bizet's Torreador's Song increased responses. In their experiment with measures of respiration and heart beat Ellis and Brighous (1954) found that heart rate was not affected by music. Cardiac and circulatory effects probably depend on the nature of the musical composition to some extent as well as on the listener's musical preferences.

Motor and Perceptual Responses

Motor and perceptual responses have been investigated with respect to one aspect of music, rhythm. The theory is far ahead of the data in this area. Some psychologists (e.g., Lundin, 1967) insist there is always a motor response to rhythm, even when the response is not observable. The tendency to impose perceptual organization on recurrent sound, such as the clicks of a clock, was used by gestalt psychologists (Koffka, 1935) to state that rhythm is innate, not learned. Seashore (1947) also maintained that rhythm is innate. However, Lundin (1967) believed it to be learned. He relied on an experiment by Heinlein (1929), who sought to test this by having eight kindergarten children walk a runway that was equipped with electric contacts to record steps while music was being played. Only one out of the eight children showed coordination between his walking and the beat of the music. A less obtrusive measure with a greater number of subjects of a much younger age would be more persuasive. Whether rhythm is innate or learned remains unresolved.

Various theories have attempted to relate rhythm to physiological processes. McDougall (1902) pointed to a physiological rhythm in the functioning of the nervous

system and proposed that it gave a periodic increase to the intensity of sensations although stimuli remained constant. The eurhythmic school of the 1920's (Jacques-Dalcroze, 1921) held that the perception of rhythm was affected by heart beat, respiration, and a regular walking gait. Consciousness of rhythm could be acquired only by reiterated experience of the whole body. However, Mursell (1937) pointed out that the body's physiological rhythms are not so flexible as the rhythms experienced in music, which may shift often within a composition without the shattering of continuity in the listener's rhythmic experience. The experience of rhythm in listening to music is not simply an amplification of the body's numerous, more steady, less conscious physiological rhythms.

There are also voluntary muscle response theories of rhythm. Stetson (1905) proposed that the experience of rhythm is a conscious response to one's motor responses to a musical beat. The motor responses themselves remain unexplained. Ruckmick (1913) observed subjects and asked them to give introspective reports on their experience as he subjected them to a variety of auditory rhythmic stimuli and to visual rhythmic stimuli in the form of a flashing light. He found that the accents gave the kinesthetic experience of tension and the non-accents the kinesthetic experience of

relaxation but that all kinesthetic experience could be temporarily or even entirely replaced by the visual or auditory experience.

Husband (1934) reported that music, especially jazz, increased the sway of people attempting to stand still. Farnsworth (1969) referred to unpublished research done at Stanford which indicated that just thinking of music can increase sway. On the other hand, when the subject is supine and the rhythm of the music approximates that of his respiration, the person is liable to become increasingly relaxed or fall into "a sleeplike trance" (Martin & Hamilton, 1959). Hence, music may either increase or decrease motor responses. Jazz may do one thing, and lullabies the other. Research contrasting the motor effects of these two kinds of music has not been done. It might shed some light on the still dark mystery of how sound affects bodily movements.

Affective Responses

Research on affective responses to music has centered on two questions: whether a musical composition tends to elicit the same affective response in different listeners, and whether there are distinctive affective responses attributable to the major and minor modes. The second question is really a special instance of the first question.

Two studies by Schoen and Gatewood (1927) based on data from 20,000 persons responding to vocal and instrumental phonograph records showed mood changes which for the same class of selections were strikingly similar for the large majority of listeners regardless of age, training, or experience. A follow-up study using an adjective check list yielded the same results. Since psychiatric patients and normal subjects experience music in the same way (Simon, 1954), lists of compositions for use in attaining particular mood changes have been among the staples of music therapy (see Farnsworth, 1969).

Capurso (1952) obtained similar affective responses to certain compositions from 134 high school and college music instructors. Rigg (1937) found that subjects could agree as to whether music was sad or joyful but failed to agree when finer distinctions were demanded. He suggested that fine distinctions are the result of previous associations, which tend to be individual. Both Rigg (1937) and Wells (1929) reported that listeners had diffculty seeing a relationship between compositions and the composers' titles for them. Hampton (1945) asked subjects to use a list of defined emotions to describe reactions to a composition. Program music was easier to describe than other music. Unpleasant reactions, such as, despair, agony, and grief,

were easier to identify than pleasant fellings, such as, joy, amusement, and love. Similarly, Campbell (1942) reported that listeners' descriptions of music matched poorly when the affect was yearning, tenderness, or calm. The same finding was also reported by Shimp (1940). Listeners, then, can agree on broad descriptive categories but seem to differ on finer distinctions and seem to find it especially difficult to agree on positive affects.

Different modes have been reputed to have different effects from the beginning of musical history. Plato banned from the ideal republic music in the Lydian mode because it was thought to convey softness and self-indulgence. It modern times rock 'n roll has been banned in several countries. The Lydian mode's internal arrangement was similar to the major mode in modern music. Gurney (1880), Helmholtz (1912), and Britain (1911) have maintained that the major mode elicits feelings of joy and happiness and that the minor mode causes feelings of grief and melancholy. Gurney believed that properties of the music elicited inherent responses. Experimental support for this came later from Heinlein (1928) and Hevner (1935a, 1935c, 1936). Heinlein presented 48 major and minor chords to 30 subjects, classified as trained or untrained. These listeners were given words lists to describe their reactions. On the lists

were words traditionally associated with the major and minor modes. Loudness of the chords turned out to be a critical variable. Loud chords drew major mode responses; soft chords drew minor mode responses. The trained listeners gave 35.7% of the typical minor mode responses to major chords and 11.5% of the typical major mode responses to minor modes. Untrained listeners made more errors. Heinlein concluded that the affective responses typical of the modes is the result of training.

Hevner (1935a, 1935c) criticized Heinlein's experiment for using isolated chords instead of musical compositions. For recording affective responses Hevner developed an adjective check list having eight clusters of adjectives which she arranged in a circle so as to display spatially which clusters were close to one another and which were far from one another. With her check list Hevner (1935c) had subjects report their reactions to ten short compositions, each of which existed in a major mode version and a minor mode version. She found the traditional responses, regardless of training or ability as measured by the Seashore tests. For the major mode, listeners checked such adjectives as happy, sprightly, cheerful, joyous, gay, bright, etc. For the minor mode, subjects checked mysterious, mystical, wierd. She concluded that there are

affective responses characteristic of each mode. In a later experiment, reported in the same article, she found that different adjectives may apply to different parts of a composition and that subjects tended to agree on these regardless of intelligence, aptitude, or training. Indeed, even Heinlein's statistics, given above, had showed more agreement than disagreement in applying traditional labels to the modes, despite his conclusion. Hevner's conclusion that the modes have affective correlates which are the results of the stimulus properties appears more justified.

Music is a complex stimulus bundle. It is not surprising, then, that some research has been directed towards ferreting out which particular aspects of musical compositions may be more or less responsible for affective responses. Hevner (1935c, 1936, 1937b, 1939) has explored the effects of tempo, modality, pitch, harmoney, and rhythm. She found these variables to be important in the order in which they have been listed. Whether melody was ascending or descending did not matter. Parallel versions of the same compositions were used and subjects were asked to note their responses on her adjective check list. Slow tempos elicited adjectives from the dignified, calm, serene clusters. Fast tempos elicited adjectives from the happy-gay, exciting-restless clusters. High pitch drew responses from the

sprightly-humorous cluster. Low pitch elicited sad qualities as well as vigorous-majestic and dignified-serious responses.

Rigg (1940b) found that a fast tempo makes music happy and a slow tempo has the opposite effect. In one experiment (Rigg, 1940a) he presented musical phrases played in different registers. Shifts upwards to an octave resulted in more responses from a pleasant-happy list of adjectives. Downward shifts resulted in serious-sad responses. These shifts held only for shifts between one-half and a full octave up or down. Winold (1963) experimented with changes in harmonic tension. Music with mostly consonant sororities was considered dignified, spiritual, triumphant, majestic. Somewhat dissonant music was reported to be calm, dreamy, gentle, sentimental, dainty, lyrical, happy, and light. Extremely dissonant music was considered tragic, depressing, frustrated, humorous, whimsical, agitated, exciting.

Grundlach (1932, 1935) did a factor analysis of music responses. He found three factors. One dealt with tempo, smoothness of rhythms, and loudness. The second concerned orchestral range and use of certain intervals, especially firsts and seconds. The third factor was related to the use

of large intervals. In terms of instruments, woodwinds were mournful, awkward, uneasy; brasses were triumphant and grotesque; piano was delicate, tranquil, sentimental, brilliant; strings were glad. After comparing European folk songs and American Indian songs, Grundlach concluded that there is at least a slight similarity in meanings attached to musical variables by Europeans and American Indians. Like Hevner, he linked affective responses to stimulus variables rather than to musical training.

From the research on affective responses to music one can conclude that listeners agree in applying the broadest descriptive terms to given compositions but that fine descriptions are more ideosyncratic, especially when the affects are positive. The kinds of affective responses are related to particular stimulus variables. However, the varying intensity of affective responses has not been accounted for at all. A little joy or sadness has not been distinguished from a lot. And in some cases, when two musical stimuli were being compared, "less unpleasant than the other" has not been distinguished from positively pleasant.

Psychoanalytic Theories

The psychoanalytic approach to music responses focuses on imaginal and associative components of listening to music. In doing so, it flaunts a history of strictures against such responding. Giving maximum attention to associations evoked by music has been labeled "imaginal" listening by Ortmann (1922), "associative" listening by Myers (1922), and "extrinsic" listening by Schoen (1928). Under the different labels lies a common conviction that only people with little capacity for understanding music listen in such a way.

Historically, musical aesthetics has been dominated by the formalist theory, which maintains that something qualifies as a work of art by virtue of having good "form" in the Aristotelian sense of a Platonic ideal brought down to earth and subjected to the limitations of physical reality. However, the concept of "form" has tended to degenerate into the more pedestrian notion of "structure." Formalism was applied to music by Hanslick (1891), who insisted that any response to music other than the purely intellectual apprehension of "form" could not be called aesthetic. Schoen (1928) reiterated the same view ostricising emotions, images, and associations from aesthetic responses. According to Schoen, the less musical person compensates for

his lack of ability by responding in these ways. The formalist theory has been mollified by Susanne Langer (1942, 1953), who has allowed for emotional responses being legitimate, although they are regarded as accidental effects of that essential element, good form, which only experts are competent to recognize. Emotional responses to objects which lack good form are not considered aesthetic responses. Seashore (1938) took the more liberal view that an aesthetic response is based on the meaning music conveys to the listener, which included the characteristics of sounds and the form of a composition but also feelings, images, and associations. The psychoanalytic approach is concerned almost exclusively with the images and associations. Any reference to "formal beauty" is extremely rare among psychoanalysts (e.g., Waelder, 1965).

There is no one well-developed psychoanalytic theory of music. There are only psychoanalytic purple patches. Hannett (1964) likened haunting lyrics to the voice of the preconscious. Montani (1945) proposed that minor modes containing the diminished (sic) third express feelings of suffering, chastisement, and pain, which characterize reactions to the castration complex. Schnier (1957) maintained that the act of artistic creation makes restitution or atonement for innate destructive impulses.

Mosonyi (1935) interpreted primitive and non-instrumental music as expressions of narcissism and good harmonies as expressions of mass ecstasy. As for Freud himself, he may have been the only Viennese of whom it has ever been said that he was just plain insusceptible to the charms of music (Knapp & Green, 1960).

On a more empirical level, Beardslee and Fogelson (1958) compared sexual responses in stories written by subjects who had just viewed two motion pictures with different musical backgrounds. The background music of one film was labeled "arousal" music; it had strong rhythm, large tonal ranges, and a definite climax. The music with the other film was labeled "neutral"; it had little rhythmic emphasis and an even melody. Stories written after listening to the arousal music contained more sexual symbolism, especially the stories of female subjects. The same technique was used by Wallach and Greenberg (1960), who added measures of the subject's social and emotional introversion and manifest anxiety to the design. Subjects who were socially introverted and had a high anxiety level exhibited a much higher degree of symbolic sexual arousal than socially extraverted subjects. What the music had to do with this is unclear. From a subsequent study which included ascertaining subjects' preferences Wallach (1960)

concluded that "degree of liking for aesthetic materials is positively related to the degree of symbolic sexual arousal in response to these materials." A study by Sopchak (1955) found that erotic associations increased with familiarity with a particular piece of music.

The general psychoanalytic proposition that the enjoyment of music depends on its sexual arousal value requires better evidence than that cited above. One major problem is agreement on what is and what is not a sexual symbol in subjects' post-experimental stories. Another is whether sexual imagery is present when listening to the music, not just afterwards. There is also some evidence which fails to tie in with the psychoanalytic theory. Berg (1953) found that obsessive patients whose particular obsessions were songs had severe but largely non-sexual conflicts even when the obsessive tunes were filled with sexual symbols. In other words, it is not sufficient to note the presence of sexual symbolism. Sexual symbolism may be present but a minor or irrelevant element in music responses.

Meyer's Expectancy Theory

The simplest and most comprehensive theoretical account of musical experience is L.B. Meyer's expectancy theory.

Meyer's theory began (1956) as an attempt to apply Gestalt principles of perception to music but ultimately came to rest as an application of information theory to musical perception (1967). It is not so much that the theory changed as that a more suitable psychological theory was found to support it. In his original exposition of the theory (1956) Meyer applied Gestalt concepts of good continuation, completion, and closure to musical compositions and to the act of listening. He argued that these principles of perception operated as expectancies in the listener whose history as a listener leads him to anticipate that musical notes, phrases, or segments of compositions will be followed by others which will be characterized by good continuation, completion, and closure. The aesthetic experience occurs when the listener's expectations are first delayed or thrown into some ambiguity and then resolved. Musical pleasure comes from the final resolution in good gestalten after the initial deviation or ambiguity.

Although Meyer's theory used Gestalt principles to explain musical pleasure, it was not really a Gestalt theory. A Gestalt theory would attribute the pleasurable response to the perception of the good gestalten by themselves, regardless of what preceded the appearance of these gestalten. Meyer's theory, however, stated that the good gestalten produce pleasure only because some uncertainty as to their

realization was created in the time preceding their actual appearance. It is the uncertainty followed by resolution that produces pleasure, not the gestalten themselves. It was appropriate, then, that Meyer's later presentation of the theory (1967) was more strictly in terms of information theory.

According to Meyer, the conditions which give rise to musical meaning, whether affective or intellectual, are the same as those which communicate information. He distinguished two types of meaning: (1) designative meaning, which occurs when a stimulus refers to something different in kind from itself, as when a word refers to an object, and (2) embodied meaning, which occurs when a stimulus refers to something like itself in kind, as when a few drops of rain portend a coming storm. His theory was concerned primarily with embodied meaning. Parts of a musical composition portend other parts and even the whole.

For a listener to grasp the embodied meaning of a musical work he must know the style of the piece. Style constitutes the universe of discourse within which meanings arise. It is the particular language of a piece. There are many musical styles, as there are many languages, and musical communication depends on a knowledge of the style

just as verbal communication depends on a knowledge of verbal language. Once a musical style has become part of the habit responses of a listener, it may be regarded as a complex system of probabilities, for the style has syntactical rules requiring certain sequences and setting limits. Yet it is not the objective probabilities of one particular stimulus following another that are important, but rather the expectancies--the subjective probabilities of the listener--are what give rise to meaning. Meaning arises when an individual becomes aware, either intellectually or affectively, of the musical implications of a stimulus in a particular context.

Meyer's theory was not without its precedent in the psychology of music. Seashore had said that beauty consists of "artistic deviations from the regular or rigid" (1938, p. 267). There is evidence for this in musical practice. Vernon (1936) found that pianists play at least half of their chords asynchronously. Similarly, Lichte (1955) discovered that one musician's preferred fifth is different from another's.

The kind of evidence Meyer himself offered for his theory is foreign to most of psychology. It consisted of examples of printed scores about which he believed that

there is general agreement as to their affective potency. Scores were analyzed for deviations from the expectancies of experts familiar with their style norms. The basic model of expectancy arousal, inhibition of response, and then fulfillment with some deviation from the original expectancy could be shown to exist in printed scores of great musical compositions.

Meyer's theory of music responses is a cognitive, formalist approach to musical enjoyment. As such it is subject to the doubts of people who enjoy music but do not listen to it as the theory prescribes. Arnheim's (1966) broadside fired at naive formalism could just as well be directed at Meyer's theory.

> The music at a funeral, in a church, or in a dance hall cannot serve its purpose if it is contemplated as a set of formal relations. And it is the funeral, the religious ceremony, and the carnival dance to which we must look for the prototypes of artistic experience, not the museum display of remote objects and the so-called "aesthetic distance" such display produces....
>
> Good form does not show.... As soon, however, as the red circles or the blue bars, the crusts of metal or the carefully daubed areas of nothingness make themselves conspicuous; as soon as, in music, the harmonic progressions of the score or the tremolos of the instruments, the diatonic routine of the atonal irresponsibilities, the grating noises or the twelve-tone rows are heard as such, something is wrong with the painting, the sculpture, the music. Or, indeed, with the consumer. (Arnheim, 1966, p. 10)

Social and Learning Theories

Farnsworth (1969) has proposed a social psychology of music. His own research has emphasized changes in musical taste from one period in history to another and the development of musical taste from childhood to adulthood. He has argued that musical taste is entirely a result of social learning. The culture contains musical norms which people learn and which act as criteria of taste. Children learn musical taste from their elders and their peers. Then people enjoy listening to what they have been taught is good music.

There is considerable evidence of social influence on musical taste and enjoyment, although some people enjoy what others have no taste for. Mere playing of pieces on the radio does not affect taste, but plugging for certain pieces does make them more popular (Wiebe, 1940). As children grow older, their preferences approach the preferences of adults and experts, at least in studies done long ago (Valentine, 1913; Dashiell, 1917; Aizawa, 1938). Socioeconomic class differences have been documented; higher social class membership is associated with greater liking for classical music (Schuessler, 1948; Rogers, 1957).

Training improves musical taste (Keston & Pinto, 1955), but courses in music appreciation affect intellectual analyses of the music more than they do emotional responses (Yingling, 1962). Farnsworth (1969) has contended that reported ethnic group differences, which have usually attributed better rhythm to black children than to white (Streep, 1931; Van Alstyne & Osborne, 1934), are learned cultural differences rather than genetically rooted racial differences.

Farnsworth's theory is a deliberate attempt to cope with the available data on responses to music, unlike the psychoanalytic theories or Meyer's theory. It does account for much of the data. Yet some of the data resist inclusion in a social psychology paradigm. Grundlach's (1935) finding that such musical variables as pitch, range, and tempo have a similar affective meaning in American Indian and European folksongs suggested to him that musical meanings may be attached to musical stimulus variables independent of any social learning. Likewise, Hevner's (1935a) finding that the major and minor modes have consistent affective meanings was construed as evidence that musical variables have meanings independent of social learning. The same may be said of consistent tempo and pitch effects (Hevner, 1936, 1937). The evidence is not conclusive for either side.

Lundin (1967) set out to construct a stimulus-response theory of music in opposition to "mentalistic" theories. Lundin, like Farnsworth, made full use of the available empirical data. His aesthetic theory maintained that any object can be an aesthetic stimulus, unlike Farnsworth's theory which made socially accepted "experts" the judges of what is and what is not an aesthetic stimulus. For Lundin, beauty is a quality superimposed by the perceiver. The strength of appeal of an art object depends, he maintained, on the number of responses it can evoke. The result is a populist aesthetics: an object is art when many individuals find it so.

Lundin specified that the aesthetic response is attentional, perceptual, and affective. The attentional aspect of aesthetic response has a motor component; it is an active response, making physical demands which are learned. The perceptual skills involved in aesthetic responses are also learned. People differ in the degree to which they have learned the necessary skills. According to Lundin, "an 'affective' response is one in which the stimulus has made some definite change in the organism" (p. 151). His concept of affect is a purely physiological view of emotion, intended to avoid "mentalistic" notions. He specified that the affective component of aesthetic

responses must be only moderately intense, for if it were to become very intense the aesthetic object would be forgotten and the response would no longer be an aesthetic one.

The aesthetic response, then, is an acquired response, the product of learning. Lundin's position is illustrated by his comments on the acquisition of musical taste.

> Those who have not had musical training often prefer the less serious, since they are handicapped in their understanding of serious music and by their lack of ability to comprehend it. Those who have learned to analyze and understand the complexities of serious music show great preference for it, while individuals with little musical training do not have the behavior equipment necessary to understand and respond to the music of our great composers. (1967, p. 187)

In response to findings that intelligence was higher among people who prefer modern to classical music and that preference for classical music decreased with age during adolescence (Rubin-Rabson, 1940; Rogers, 1957), Lundin suggested that more intelligent people prefer modern music because it is fashionable in some places and that indifference increases with age because too frequent repetition pushes listeners past their affective peaks to the point where the affective value of classical music declines.

It would be more consistent for Lundin's theory to maintain that liking for music increases with repetition,

as indeed it does to a small degree for classical music, although not for popular music (Gilliland & Moore, 1927; Washburn, Child, & Abel, 1927; Downey & Knapp, 1927; Verveer, Barry, & Bousefield, 1933; Wiebe, 1940; Krugman, 1943; Mull, 1957). A stimulus-response theory should predict a strengthening of the stimulus-response connection through repetition. On the other hand, how Lundin's "non-mentalistic" stimulus-response theory is to accomodate the "understanding" so prized in the quotation given above is unexplained.

Lundin's theory lacks an adequate concept of affect, offers no precise description of the cognitive aspect of aesthetic responses, and fails to cope adequately with the empirical data suggesting consistent affective responses to such musical variables as the modes, pitch, and tempo.

Conclusion

Psychological research on the response to music has contributed somewhat to understanding the phenomenology of listening to music but has not grasped the state of ecstatic or peak experience in music appreciation. If an ecstatic experience were to occur in listening to music, the available data suggest that it would be a tumescent experience if the

music had such stimulus qualities as fast tempo, low dissonance, major mode, wide range, string instruments; but it would be a cathartic or withdrawal ecstasy if the music had such features as slow tempo, minor mode, dissonance, low notes, woodwinds. The type of ecstasy would depend on the type of music.

The data also indicate that personality variables are critical, especially musical training and preferences. One cannot hope to obtain ecstatic responses from a variety of respondents listening to the same music. There are differences in aesthetic preferences, whether or not preferences are equated with sensitivity. Hence, one could not reasonably plan an experiment on peak experiences in music appreciation with a fixed musical stimulus.

The psychoanalytic theories of music responses and Meyer's expectancy theory have each described some of the possible content of music responses. But they have dealt with very limited aspects of the experience. Typical experiences overflow the banks of these theories. The social-learning and stimulus-response theories have been more concerned with the cause than the content of musical experience. An adequate theoretical model of music responses does not exist.

The laboratory situation on the whole does not seem to be the most promising arrangement for eliciting peak responses to music. Failure to obtain desired pleasurable responses in the laboratory has led some investigators to analyze data as if the responses had occurred. Substituting minimal or even unpleasant responses for ecstatic ones would be especially disasterious when the goal of the research is not primarily to relate the experience to other variables but, above all else, to analyze the musical peak experience in itself.

CHAPTER 4:
RESPONSES TO VISUAL ART

It is much more difficult to bring good painting into the laboratory than to bring in good music. It is not surprising, then, that the stimuli in most experiments on responses to visual art have not been art. Quibbling over whether color slides of great works of art can generate the same responses as the works themselves is a step beyond the present stage of laboratory research which so commonly equates aesthetic responses with responses to lines, figures, and designs which not even the makers dare to label works of art. Many times the stimuli in experiments on visual aesthetics seem to the subjects to be distinctively unaesthetic. However, this problem of unpleasing stimuli arose in the study of music responses too, and it did not stop any research there. The aesthete would conclude that psychologists are a hardy lot.

Apart from experiments by Berlyne (1969) showing disruptions of EEG patterns by brief exposures to complex visual stimuli, physiological responses to visual art have not been investigated. The research to be reviewed here will be put under the headings of perceptual responses, preferences, affective responses, Arnheim's theory of visual

art responses, and psychoanalytic theories.

Perceptual Responses

Gestalt psychology attempted to build a theory of aesthetic response primarily on perception (Koffka, 1935; Arnheim, 1954, 1962, 1966, 1969). Experiments in which subjects are put in different conditions and expected to have different reactions have not been done. Instead literary examples and demonstrations have been concocted to persuade the individual reader that the theory has merit. This approach allows for the use of creditable art works as stimuli, and such have sometimes been used, but the examples most commonly used, and those to which Gestalt principles most clearly apply have been simple figures and patterns without aesthetic claims. The approach through literary demonstrations makes it virtually impossible to present consensually validated empirical data.

All that can be said is that Gestalt principles do seem to apply in the examples which have been offered. But they apply too generously. So many different Gestalt principles may apply to complex visual stimuli, such as art usually is, that some Gestalt principles may be found to account for almost any response, pleasant or unpleasant. Attempts to arrange the principles in a hierarchy of power

which would enable one to predict which principle would dominate if several were operative together have not succeeded (Arnheim, 1954). As a result, responses cannot be specified beforehand but nearly any response can be justified after it has occurred.

Art has often been treated as the perception of an illusion. Within the history of art there has been a continuous effort to approximate on canvas the appearance of reality until very recent times. Even the impressionists insisted that they were representing reality, although they claimed to be representing reality as it impinges on the senses, not as it is perceived by the ordinary viewer (Gombrich, 1960). The artists have outdistanced psychologists in this regard. Recently Gregory (1966) treated the psychology of aesthetic visual perception entirely under the assumption that artists attempt to reproduce the retinal image. Of course, most artists do not, for if they did viewers would not recognize the art as correct illusions, since in everyday life people do not see things in strict accordance with their retinal images. When art does attempt an illusion, it is like everyday vision, a compromise between reality and the viewer's visual expectations and habits. The impressionists taught this lesson, and attempted to modify people's everyday vision, when they painted grass

purple and face shadows green, as indeed they sometimes are, but as they are not perceived by the untrained viewer who lets his presuppositions about the colors of things seduce him into comfortable stabilities in the visual world.

Attneave (1954, 1955, 1957; Attneave & Arnoult, 1956) has attempted to apply information theory to visual pattern perception. However, this has required breaking visual figures into sections and presupposing the viewer's scanning sequence across the sections. Also, Attneave has based his experiments on objective probabilities of the fates of lines and patterns as they reach across a total figure and not on the subjective expectancies of viewers. In other words, the viewer is presumed to scan the figure by tracing it with his eyes in exactly the same directions and sequences as Attneave thought likely. But viewers may not share Attneave's estimates of the probability of a line or pattern remaining the same or undergoing a particular transformation.

The invalidy of such suppositions have enabled Green and Courtis (1966) to demonstrate that Attneave's results have been only an artifact of his methodology, not an empirical demonstration of the applicability of information theory to visual art material. For example, Attneave's contention that figures carry more information at their

curves was disproven by Green and Courtis when they used a different methodology. According to Green and Courtis, perception is "essentially non-sequential, or at least non-linear," so that it is impossible to apply information theory to the perception of visual patterns or figures. They suggested that game theory might be more applicable. Berlyne (1960) had also noted that visual perception of art objects, as studied by photographically recorded eye movements, does not follow contours systematically or exactly but rather follows irregular patterns hardly influenced by the shape of what is being seen.

Bullough (1905, 1921) hypothesized that there are four different types of aesthetic perceivers: the associative type, who dwell on meanings when perceiving a work of art; the objective type, who dwell on the impersonal plastic qualities of art; the physiological type, who are bound by their present moods and feelings; and the character type, who empathize with a work of art. In a factor analytic study of this hypothesis Clements and Smith (1968) had 300 college freshmen respond to 100 Likert statements about their perceptions of art. Four factors resembling Bullough's types were found. The associative meaning factor (type 1) represented a somewhat narrow range of meanings centered mostly on childhood, mother, and religion. Clements and

Smith concluded that these are not so much four types of perceivers as four types of aesthetic perception which are each present to some extent in most viewers. Old as Bullough's theory is, it accounts for the ideosyncrasies of visual art viewers better than the more recent perceptual theories. Attempts to specify a single type or pattern of aesthetic visual perception have not yet been supported by any empirical data.

Visual Art Preferences

Somewhere in the misty no man's land between cognitive and affective responses lie preferences. Preferences have been the most common variable in aesthetic research. Agreement with art experts has been surreptitiously labeled "aesthetic sensitivity" (Child & Iwao, 1968) even though for the respondent it may often be a matter of choosing which art stimulus he dislikes less or responding to objects which make very little impression of any kind on him. Sometimes subjects have derived pleasure from individual elements in a generally disliked art object (see Diven, cited in Murray, 1938). More often subjects have made the "error" of enjoying more greatly art objects which were in "bad taste," for which they were not credited with aesthetic sensitivity.

Preference studies often measure how much the subject agrees with the preferences of experts. But a prior question is how much experts agree with one another. The evidence is not all consistent, even when the criterion is not stringent. The criterion has not been the absolute degree to which experts concur in preferring one work of art to another but only the relative degree to which the preferences of experts are more homogeneous than the preferences of non-experts. Child (1962) found that experts agreed with each other more than two independent samples of college students did in indicating preferences for pictures. Twleve sets of 60 pictures each were used in these experiments, and for each set there was more agreement among the experts than among the college students of either group.

On the other hand, two experiments (Frances & Voillaume, 1964; Gordon, 1956) had the opposite outcome of having more agreement among non-experts than among experts. Frances and Voillaume had connoisseurs and non-connoisseurs rank five paintings in each of four sets. The non-connoisseurs agreed more than the connoisseurs. Gordon asked 10 experts and 10 laymen to rank each of 10 student paintings on a five-point scale and explain each rating. The experts showed little agreement. The laymen agreed more. However, laymen and experts seem to have been looking at different elements in

the paintings. Laymen were concerned with content, realism, and coloring. Experts were concerned with style, craftsmanship, and originality. Thus, in using preferences as indicators of aesthetic sensitivity, one encounters problems of meaning as well as problems of reliability and validity.

Eysenck and Castle (1970) investigated art training as a variable in preference judgments on polygons. They found that art students showed little difference in preferences for simple versus complex polygons. But non-art students showed a definite preference for the more complex figures. These results suggest that the difference between artists and non-artists may be limited to the non-artist's prejudice against simple figures in favor of complex ones. These are tantalizing results, for visual art preference studies have characteristically employed non-artists as subjects and have found them preferring the complex stimuli over the simple when asked to make aesthetic judgments. What is more, those preferring complex stimuli over simple have been the ones in higher agreement with experts. It is possible that neither the non-expert being tested nor the expert critic has the same preferences as artists. Those cited for having poor taste in preference studies may be more similar to artists than those found to

have good taste.

The Barron-Welsh Art Scales (Barron & Welsh, 1952) were based on the finding that 37 artists and art students preferred some complex, asymmetrical figures more than a group of non-artists did. Despite Barron's (1953) interpretation of the test as simply a measure of preference for complexity, subsequent research has shown that complexity accounts for only a minor portion of the variance in scores on this test (Moyles, Tuddenham, & Block, 1965). Furthermore, it is uncertain what the artists in the validation sample were asserting by their preferences. Experimental results are different depending on whether subjects take preferences to mean personal liking or aesthetic judgment. A study by Child (1965) demonstrated the point. Subjects were divided into two groups. One group was instructed to respond to pairs of visual art slides in terms of aesthetic judgments (trying to agree with what experts would choose), and the other group was asked to respond in terms of personal liking for one slide or the other. Aesthetic judgment was correlated with art background and scores on the Barron-Welsch Art Scales, but not with the latter when the former was partialed out. Personal liking was not correlated with either. Art background enables one to agree with the experts, but it does not affect personal

liking for complexity.

Aesthetic judgments may be more subject to social influence than personal liking. Farnsworth and Beaumont (1929) asked students to judge the attractiveness of pictures displayed in an art gallery. For each picture there were two descriptive legends, one expressing expert approval of the painter and his work, the other uncomplimentary. The legends were varied as different groups of students came to see the paintings. The students judged the pictures to be significantly more attractive when they were accompanied by the legends expressing expert approval.

Child and his associates (Child, 1968, 1969; Child & Siroto, 1965) have tried to demonstrate that when it comes to the experts agreement is based more on objective qualities of the art than mutual social influence. Their studies have shown agreement between experts from different cultures in ranking art stimuli. American art experts, who have not been identified or defined in the reports, have shown significant agreement with African tribesmen in ranking photographs of carved masks. The Americans ranked them in terms of beauty. The Africans, reportedly lacking an aesthetic concept in their language, ranked them according to other criteria, including their magical potentials. In this study

the meaning of the agreement is ambiguous to say the least. In another study American and Japanese experts agreed significantly in preferences when presented with paris of abstract art designs. Both of these experiments naively presupposed that geographical distances are equivalent to art culture differences. Neither African nor Japanese art are likely to be completely foreign to American art experts, nor are Japanese experts likely to be unfamiliar with American art culture. These experiments do not preclude a major role for social influence among the experts themselves.

Research on preferences contributes little to understanding aesthetic experience. The methodological simplicity of asking subjects to express a preference for one out of two art stimuli or ranking a number of art stimuli has been acquired at a cost of meaningfulness. Aesthetic judgment is not necessarily a measure of aesthetic sensitivity. It is not even the same as personal liking. Furthermore, although preference studies have disclosed some correlates of preferences, they have failed to define the cognitive or affective features of preferences.

Affective Responses

Hevner (1935b) developed an adjective check list for

affective responses to visual art stimuli similar to the one she developed for describing responses to music. She arranged adjectives into eight clusters and asked subjects to check those which seemed appropriate to a given stimulus. Her stimuli consisted of designs which were prepared in as many as eight variations by art students. Each design was rendered in either red or blue tints and in patterns which might consist of circles, squares, angles, or waves. In addition, subjects were asked to check adjectives appropriate to abstracted versions of three portraits in which the larger shapes and colors were reproduced but the details were obliterated to the point of making the paintings unrecognizable as portraits.

Hevner had groups of 40 to 50 subjects view each set of visual stimuli, which amounted to eight sets of stimuli arranged according to colors and patterns and three other stimuli for the part of the experiement dealing with abstracted portraits. Although the results of this experiment were not analyzed statistically, the main features of the results seemed to be clear cut. In terms of colors, red evoked responses of happy and exciting; blue evoked responses of serene, sad, and dignified. Curved figures evoked responses from the adjective categories including tranquil, playful, happy, and exciting. Angular figures

were described from the happy and exciting categories but not so much from the other six categories of adjectives. Responses to the abstracted portraits were comparable to the responses to the designs for color and pattern variations, indicating that the artists had achieved effects in the portraits by color and line choices as well as by the representations of the persons in the pictures.

Berlyne (1958, 1960, 1971) used length of time spent looking at figures along with verbal statements of preferences in investigating responses to visual patterns presented in pairs. He found there are two types of perceptual-cognitive processes involved in looking at visual material. One is information seeking, and the other diversive exploration. Information seeking is aroused by complex patterns, provided they are not overly complex for then they would discourage the attempt at information seeking. Information seeking is manifested by prolonged attention. Diversive exploration is seeking beautiful patterns. It is more likely to occur in response to simple patterns and is manifested by comparatively short attention. One wonders if attention would have been longer if Berlyne had used acknowledged art stimuli instead of figures with minimal aesthetic merit. Corresponding to the process of information seeking was

the affect of curiosity. Diversive exploration was associated with subjects' figure preferences, which was escalated, by Berlyne's interpretation, to the affect of enjoyment. Thus, interestingness and pleasantness appear to be two separate responses to two different types of stimuli. What is pleasant may not be interesting, and what is interesting may not be pleasant--even in art.

Dorfman and McKenna (1966) have investigated personal preferences, i.e., liking, in terms of pattern uncertainty. They had 100 female subjects view slides of paintings which consisted of matrices of green and white areas ranging in number from the four areas of a two-by-two design to the 144 areas of a twelve-by-twelve design. They found a curvilinear relationship between preference and uncertainty (number of bits of information, ranging, as noted, from 4 to 144). Another analysis of the same data revealed a preferred level of uncertainty for each subject, with preferences for patterns decreasing as they departed from that individual optimal level. A second experiment with 18 female art students yielded the same results. One may raise the objection that what was measured in this experiment was not necessarily uncertainty but level of stimulus complexity. Uncertainty is a psychological state, which this investigation did not inquire into. Complexity is a characteristic of the

stimuli, which was what this investigation manipulated. With the interpretation of the data specified in this way, it matches Berlyne's (1969) finding that, with very simple figures excluded from the analysis, there is a curvilinear relationship between preference and complexity. But the Dorfman and McKenna data add the dimension of individual differences in preferred level of complexity.

One may conclude that cognitive responses like curiosity or uncertainty have some relationship to the complexity of visual art stimuli. But only the slight of hand involved in the substituting of "enjoyment" for "preference" accounts for any reports of a viewer's affective responses to visual art stimuli, however broadly defined. Hevner's experiment did not ask about the affective responses of the viewers but only the appropriate application of affective labels to the art work. If the art is sad, must the viewer be? Pratt (1931) has argued that affective labels can be applied appropriately both to aesthetic stimuli and to aesthetic responses, but there is no empirical data on how strong, or weak, such a link might be. If an experimenter had subjects look at a painting judged by himself or others to be extremely joyful, he would not be justified in assuming that very subject will have an extremely joyful response to the painting.

Arnheim's Theory

Rudolf Arnheim (1953, 1954, 1962, 1966, 1969a, 1969b, 1969c) has attempted a synthesis of visual art experience from a Gestalt point of view. His theory cannot claim to account for the available empirical data; indeed, it ignores most of it. Arnheim's theory explains art experience primarily through perceptual processes. He contended that the distinction between perception and thinking tends to be exaggerated and that thinking itself begins in perception. Perception includes visual thinking. Selection, judgmental processes, and abstraction are included in such perceptual mechanisms as scanning, focusing, fixation, depth and shape perception, the formation of percepts, and perceptual constancies. These are not central but peripheral mechanisms, Arnheim argued, and yet they are instances of cognitive behavior, albeit in redimentary form. Arnheim's penetrating analysis of perception is much more of an original systhesis than his theory of art. What is special about his theory of art is how it locates visual art experience in perception, not anything it has to say about art as distinct from other objects of perception.

Arnheim's theory was based on some common principles of general aesthetic theories, namely, tension, balance, and

expression. Principles of Gestalt psychology were also used, such as, the principles of closure and tendency towards simplicity. But the key concepts were tension and balance; these are what make a work of art, according to Arnheim.

Any work of art contains a number of elements: shapes, spaces, colors, lines, etc. Among these elements the artist creates a tension by subtle juxtaposition. It is the tension which stimulates the act of visual perception. Yet the tensions among the individual elements in a painting must be welded together in such a way that the painting as a whole presents a balance of tensions. It is the perception of this balance among the tensions which gives rise to the specifically aesthetic pleasure of visual art perception.

Arnheim acknowledged the role of symbols, representational meanings, and associations in art, but he denied these elements the primacy they enjoy is some other theories. The expression in art referred to by Arnheim was not the manifestation of the artist's thoughts or affects but rather the manifestation of the basic physical properties of the universe, tensions and balances, which were said to exist isomorphically in the world, in the artist, in the art work, in the viewer, and in the act of perception itself which mediates the experience of the world. It is

Koffka's (1935) Pythagorean universe in which people prefer the shape of ellipses over circles as nature does, which is evident from the shape of eggs as well as the shape of the universe, and this preference is reflected too in elliptically shaped fields of brain waves when the person is perceiving ellipses. The same Gestalt laws govern everything.

Arnheim illustrated his theory generously by reference to visual stimuli ranging from simple figures to complex works of art. His illustrations were cogent. The history of experimental aesthetics offers ample demonstrations of the importance of tension and balance in art stimuli. Arnheim himself referred to demonstrations and more empirical experiments by Puffer (1903) a half century earlier. But, as already noted, perception tends not to follow the contours of objects but to be irregular, which is quite different from the way Arnheim leads the reader's eye in demonstrating the application of his perceptual principles to visual art. And how to predict responses when several principles apply to the same complex visual stimulus has not been specified.

Arnheim's theory does not seem capable of explaining the great range of individual differences in responses to visual art. Of course, Arnheim recognized the role of

learning in perception. But he did not appeal to differences in perceptual abilities or to any other factors which might explain individual differences. Indeed it might be difficult to explain preference differences among artists themselves by appealing to differences in perceptual abilities. The isomorphic Gestalt world presupposes that good art is a physical reality and perceptual recognition of it is an equally compelling psychological reality. But people differ in their aesthetic responses more than the model allows.

Psychoanalytic Theories

Psychoanalytic theories of art have dealt much more with artistic production than with aesthetic responses. Art is seen as a sublimation of id elements, the expression of which in socially anctioned forms releases the instinctual energies that might otherwise overwhelm the ego. The artist is generally depicted as a person with strong instincts and weak ego controls. The perceiver of art likewise experiences a release of libido. An artist's work can release libido in another person because all persons have the same instincts and culture enforces the same repressions on all.

Freud himself used the arts to embellish and demonstrate his sexual theories but apparently without the sense of joy or of the tragic which is the substance of artistic experience. At the end of his essay on Leonardo da Vinci (1957/1910) Freud admitted, "The object of our work was to explain the inhibitions in Leonardo's sexual life and in his artistic activity." Leonardo was presented as an example of sublimation. Freud offered the gratuitous theory that Mona Lisa resembled Leonardo's mother and that he could not bring himself to complete the work because he did not want to be separated from her. There is nothing in Freud's essay to help the reader understand anything of Leonardo except his apparently dull sex life. Similar evasions of aesthetics in Freud's discussions of Dostoyevski and Michelangelo as well as Freud's self-admitted indifference to music led Knapp and Green (1960) to suggest that Freud himself had "special biases" against aesthetics.

Those disciples whom Freud divorced from his Wednesday night discussion groups led psychoanalytic theory down new paths as much in relation to the arts as to other matters. Adler, for instance, strongly disagreed with Freud's picture of Leonardo. Adler saw Leonardo as a man concerned with ethical and aesthetic values and a man of deep social interests as evidenced by the curious word lists in Leonardo's

notebooks which seem to be scribbled free associations (Stites, 1971). Jung and his followers gave even more attention to art than other psychoanalysts, for they saw in art the expression of a collective unconscious. Jung's essay on Picasso (1932) analyzed the work of the artist as expressing not only a schizophrenic tendency in the artist's own unconscious but also a latent schizophrenia in western man's collective unconscious at its present stage of evolution. Essential to the psychoanalytic approach is the role of symbols in visual art, which is considered analagous to the role of symbols in dreams. Jungian psychoanalysis has attempted to demonstrate the universality of certain symbols by drawing together literary and artistic examples of recurrent themes from a wide variety of cultures (Jung, 1964). Again, though, it is a matter of literary demonstrations. Their effectiveness depend to a large extent on the cognitive style of the reader, whether he is a leveler or a sharpener.

Anton Ehrenzweig (1953, 1967, 1969) built a new psychoanalytic theory of aesthetics which incorporated ideas from experiments in perception. His theory was elaborated with special reference to visual art. Ehrenzweig contrasted analytic with syncretistic perception. Analytic perception seeks good gestalten, distinct figures that are the focus of

attention. Syncretistic perception, which is said to be characteristic of children, is an undifferentiated perception which does not break the stimulus into figure and ground or focus attention on any one aspect of the stimulus field. It gives equal weight to everything in the field. The perception of art involves syncretistic perception, not analytic perception as Gestalt psychologists would maintain. There is an unconscious scanning process which enables the viewer to perceive the whole in syncretistic fashion and respond to the order that lies beneath the surface forms. In syncretistic perception dedifferentiation occurs and creative primary process is released. Art involves more than regression in service to the ego; the id itself is creative, not just the ego controlling the id.

Ehrenzweig emphasized the death instinct as well as the libido in art. The creation of art involves a stage of chaos, an act of self-destruction, of thanatos, and acceptance of one's destructive impulses is part of the creative act. This is most readily illustrated by a sculptor approaching a piece of marble with hammer and chisel in hand. Some mess, to put it bluntly, is part of the creative process. A new creation requires destruction of an old entity. Historically the destructive or Dionysian element

was expressed in the blurred shapes of the background in visual art, but it has come forward to dominate the surface in modern art. Meanwhile the Apollonian element, which dominated the surface in traditional art, has receded to the background. It is the unconscious scanning process which yields aesthetic pleasure by bringing the perceiver into the thanatos and the eros of the self-destruction and the hidden order of art.

Elaborate as Ehrenzweig's theory was, his developmental notion of children's perception as highly syncretistic and the liberties he took in interpreting early reports of subliminal perception let the theory down as research has demonstrated more order, contour, and depth in infant perception than he supposed and as research demonstrated that even subliminal perception is more focused than syncretistic. Psychoanalysis still lacks an empirically based theory of art from the viewpoint of the perceiver.

Conclusion

Aesthetic creations are usually intended by their makers to evoke something like peak experiences. But in all the literature of a hundred years of psychological research

on aesthetics there is no evidence that a subject in any psychological experiment ever had an aesthetic peak experience or that any psychological investigation has ever inquired about such experiences. Researchers have been interested in only certain fragmentary responses, such as, critical judgments, affective labels for stimuli, stimulus characteristics, preferences and their correlates. Theories have come a little closer to dealing with aesthetic experience in its totality or in its most potent form.

Maslow had implied that peak experiences involve unusual perceptual functioning. Ehrenzweig suggested an unusual kind of perception in visual art responses, but his arguments were without substantial evidence. Attempts to define visual art responses in terms of ordinary perception have been ventured unsuccessfully by information theorists but more successfully by Gestalt theorists. But Gestalt theory rests on only retrospective analyses of visual art stimuli. It says very little about the experience of the viewer. Bullough's theory of different types of aesthetic perception and psychoanalytic approaches through symbolism account better for the richness of aesthetic experience. In visual art as in music, one track approaches do not seem adequate to account for the experience. A comprehensive approach to aesthetic responses is necessary.

The criteria in aesthetic judgment studies are of doubtful validity. Not even artists feel constrained by the canons of critics; like other people, they can enjoy what they are not supposed to. However, mere preferences, when a matter of forced choice, cannot be equated with enjoyment or aesthetic sensitivity. What preferences testify to is individual differences in aesthetic judgment and liking. Fixed visual art stimuli cannot be expected to uniformly generate positive aesthetic responses. Thus, a study of peak experiences in response to visual art cannot be based on the use of predetermined stimuli, no matter how aesthetically good they are judged to be.

CHAPTER 5:
THE DESIGN OF THE EXPERIMENT

What are being investigated are peak experiences in responses to music and to visual art. Since the primary purpose of this research is to elucidate the experience itself, the method is primarily phenomenological. A paradigm for phenomenological methodology in psychological research has been constructed by van Kaam (1966). His paradigm furnishes the general methodological model for this experiment, but with some major modifications mostly disctated on the one hand by previous research on music and visual art responses and on the other hand by developments in content analysis methods and multivariate statistical procedures.

Piloting

The so-called prescientific phase of research in van Kaam's model might also be called by the more familiar name of pilot research. Van Kaam's prescientific phase essentially consists of the experimenter analyzing his own relevant experiences and testing the categories within which he is framing the research for agreement with others. To this might be added testing the actual research

instruments. The importance of this phase is illustrated by the unfortunate consequences of skipping it, as has happened in several studies of ecstasy and peak experiences. Laski, for example, began collecting her data before she compared her own mental categories for framing the question with others. In consequence, her question was ill-phrased and evoked puzzlement and meager responses. She rephrased her questions as her investigation progressed, although she never arrived at a satisfactory phrasing. Maslow also had found that the phrasing of the question was a crucial problem, as were the circumstances under which the answer was demanded. After he learned to create facilitating circumstances for asking the question and learned to phrase the question differently, he obtained so much more data that he changed his opinion that peak experiences were rare to the opinion that they were very common. Buchenholz and Naumburg likewise had great difficulty concerning how to ask about pleasure experiences. They remained discontent with their final phrasing of the question, and rightly so, for their responses were multitudinous but skimpy. In the end, they resorted to combining the responses of all their subjects into one composite description of the experience on the assumption that all of the subjects had all, or most, of the experiences reported but that the experimenters'

question had evoked only partial descriptions from each subject.

The major shortfall in this line of research has been that post-experimental probing has revealed that virtually all subjects could have given fuller descriptions of their experiences but forgot or were inhibited from giving more details until goaded with specific instances of responses by the experimenter. Yet, no matter how spontaneously subjects may agree to an experimenter's suggestions that certain hitherto unmentioned phenomena might have been part of the subject's experience, one cannot treat the subject's acknoeledgements in the post-experimental interview in the same way as data collected beforehand. The demands of the experimenter are too explicit and too attractive in the post-experimental interview. So, the problem is to get as complete a description as possible from the subject before departing from a relatively open-ended to a leading set of questions.

Even before putting the question, the researcher must have someone to ask. Random sampling is not an appropriate technique for the kind of phenomenological research undertaken here. The subjects for this investigation must

be persons who have indeed had peak experiences in response to either music or visual art. In addition, there were five other characteristics considered by van Kaam to be essential.

> a. The ability to express themselves with relative ease in the English language.
> b. The ability to sense and to express inner feelings and emotions without shame and inhibition.
> c. The ability to sense and to express the organic experiences that accompany these feelings.
> d. [The experience of the phenomenon being studied.]
> e. A spontaneous interest in his experience on the part of the subject.
> f. An atmosphere in which the subject can find the necessary relaxation to enable him to put sufficient time and orderly thought into writing out carefully what was going on within him. (van Kaam, 1966, p. 317)

Specifying what the last requirement (f) involves in terms of the particular phenomenon under investigation requires successive approximation through piloting. Some phenomena can be described more readily and publicly than others.

In this investigation acquaintance networks were used to find subjects for piloting the phenomenological questions. Friends and friends of friends of the investigator collaborated. All were persons with considerable interest in music or visual art. To specify the total number of persons involved would be meaningless, since the design of the research took shape slowly and was being altered from subject to subject in search of what would

produce the most complete responses. Piloting stopped when five consecutive subjects were rather satisfied with a design which had reached a point of trivial further variation. The design at this point became the final design for the experiment. Some of the approaches which had failed along the way will be mentioned, so that the quasi-empirical basis for the final design will be clear.

The phrase "peak experience" is unknown to many people. The label "ecstasy" encounters obstacles too. Ecstasy seems too strong a word to many people, as it did to Maslow before he reconciled himself to the concept of "mild ecstasies." For many people the word "ecstasy" has specifically religious connotations. The phrase which seemed most apt for describing the experience in question was "extremely intense joyous experiences." However, subjects were unable to respond adequately when asked simply to describe an extremely intense joyous experience of listening to music or looking at visual art. They typically responded with only six or seven words. Yet a little prompting induced them to add many more details to their descriptions.

In fact, the more prodding, the more subjects could add to their descriptions. To some extent this remained true

even when the question was phrased in its final form, making a post-experimental interview essential for the investigator to get a full understanding of the experience. Subjects could add more to their descriptions especially when specific possible responses were suggested by the investigator. Maslow had finally settled on a procedure of narrating his own peak experiences and giving examples of many specific responses when trying to get a subject to disclose an experience in its entirety. But the undesirability of suggesting so much which the subject might acquiesce to out of uncertainty in realling an experience appears as undesirable as incomplete responses, particularly if the incompleteness can be minimized by other means.

Simply repeating the request for a description after the subject finished a first response struck the subject as either a blunder by the investigator or a trick of some sort. It interferred with the subject's responsiveness. But repetition of the question became acceptable and elicited fuller responses when the question was repeated in terms of a temporal sequence to the experience, such as Buchenholz and Naumburg had reported finding. Thus, the

subject was asked to describe what the experience was like at the beginning, as it continued, at its most intense point, after the most intense point passed. Still, at this point the description could be added to considerably when specific responses were suggested in the post-experimental interview.

In the end it was found that nearly complete descriptions could be obtained if the question contained generic categories of possible responses. For example, the question asked the subject to report any sensations he might have had during the experience but did not give any examples of specific sensations, such as, tingling, warmth, or lightness. It asked the subject to report any feelings but again gave no instances of specific feelings. The generic categories of responses which were known from previous research and from the pilot subjects themselves were all embedded in the question itself. This procedure, added to the technique of repeating the question in terms of a temporal sequence, produced descriptions to which subjects could add only a little more with more specific prodding in the post-experimental interview. Hence, this was the questioning procedure used in the final version of the questionnaire. The final questionnaire appears in

Appendix A.

The circumstances under which subjects were most able to produce descriptions of their experiences might be best summarized as privacy. This included for many subjects the option of anonymity, even if this anonymity were surrendered in time out of curiosity to communicate with the investigator about their descriptions in relation to other people's. It also included reserving the right to either submit or withhold a description after the description had been written down. Some features of the peak experience memory as a personal myth were involved, it appeared. The experience was "sacred" to many subjects. Actually, many persons refused to participate in the research because they felt that it would demean ("profane") the experience to try to reduce it to a verbal account. They preferred to keep the experience completely "ineffable." Subjects often were reluctant to undertake the description but did begin the task if they felt that they retained the right to reneg at any point.

A related aspect of the privacy demand was a rejection of temporal and spatial restraints when a complete written description of the experience was requested. Subjects did

not respond immediately, not even those most eager to participate in the experiment. A feeling of helplessness dominated first attempts to describe peak experiences completely. Left alone in a comfortable setting, pilot subjects would try to render a description but then report to the investigator after some time that they could not perform the task immediately. They had to "think it over" first. Also, they felt they had to do it at home. This process of translating the memory into a satisfactory verbal description usually took several days and sometimes weeks. It was not simply a matter of the person being too busy to get to the task. The problem was to manage the task itself. This included deciding whether one wanted to "reduce the experience" to a verbal description.

The "sacredness" of the peak experience affected the responses to other questions which were included in the questionnaire. If other questions were put first in the questionnaire, subjects felt that the experimenter's main interest was in the other questions and they were little inclined to cooperate. Likewise, if the number of other questions was considerable, subjects objected that the peak experience report was being subordinated to personality measures which they resented. The subjects were unusually

hostile to personality questions; they often bickered with the phrasing or meaning of individual questions. This querulousness was greatest and most interpretable when subjects thought that the personality questions were designed to measure abnormality. They did not want the descriptions of their experiences to be hand in hand with any measures of abnormality. Assurances that the investigator was not attempting to find pathology in the experiences were necessary before subjects would cooperate fully.

In the course of piloting some auxiliary questions about the peak experiences arose. These concerned the differences between extremely intense and only moderately intense experiences and the effect of an experience on later contact with the stimulus. The subject was made aware of the distinction between moderately intense and very intense experiences before the description was elicited in order to guide the subject toward describing his most intense type of experience. In addition, several questions about the occasion of the experience were posed before the actual description was requested in order to help the subject recreate the experience in imagination. Originally all these questions were open-ended. But as

piloting progressed, it was found that some of them could be changed to check-off responses without notable loss or distortion of information. Questions which elicited very varied responses had to be left open-ended. These auxiliary questions appear as items one to nine and eighteen to twenty-four in the final questionnaire.

One of the goals of this investigation was to ascertain if there is a relationship between peak experiences and self-actualization. To do this, it would not be sufficient to take a subject's music or visual art peak experience report and relate just that to a self-actualization measure. A person might have other peak experiences besides music or visual art. Responses to other triggers might or might not be proportionate to the subject's music or visual art responses. Hence, it was necessary to include in the study a measure of the full range of peak experiences experienced by the subject. One page of the questionnaire was developed to have the subject name the triggers, grade the intensity, and report the frequency of other peak experiences.

Subjects were not able to report the frequency of peak experiences with any exactitude. One reason for

this was the difficulty of distinguishing ordinary from unusual pleasant experiences. Each subject in the pilot study could clearly distinguish some experiences as exceptional. This was sufficient to choose one experience for the peak experience description. But subjects reported having had many other experiences which were of borderline intensity. They could not adequately separate these experiences. Another problem was that, according to pilot subjects, peak experiences often occur in spurts lasting a few weeks or months with irregular non-peaking intervals in between. Such an uneven distribution of the experiences over time made frequency estimates very unreliable. A more reliable indicator of the individual's general tendency to peak experiences appeared to be the transferability of the experiences, that is, the number of different triggers which are effective for the person. Some people seemed to be responsive to a greater range of peak experience stimuli than others.

The Content Analysis Scoring Manual

From previous research, especially Laski's content analysis of ecstasy reports, and from the pilot data of this study a manual for content analysis was constructed.

Several successive approximations were necessary before an adequate manual was achieved. The final scoring manual is presented in Appendix B. The manual defines thirteen specific categories of responses as well as a miscellaneous category. Examples of responses for each category were taken from previous experiments and from the pilot data of this study. When the first three music experience descriptions and the first three visual art experience descriptions were received in this study, they were scored by the investigator and added to the manual as examples of scored protocols.

Constructing a scoring manual prior to examining all of the actual data of the study is a departure from the methodology proposed by van Kaam. However, in the present instance there were relevant data available before the final investigation began. Thus, this research has some of the features of a cross-validation experiment rather than an initial inquiry. The approach to content analysis guiding this study is the one recommended by Berelson (1971), Rapoport (1969) and others in cases where preliminary inquiries have given some intimation of what the content will be like. Scoring the first three music and the first three visual art responses before proceeding further provided some indication of the adequacy of the manual for scoring

these types of peak experience reports. Seventy-five percent of the response items from these first six protocols fell into the specific content categories. The 25% of response items which fell into the miscellaneous category were mostly not descriptions of the experience itself but post facto commentaries on the experience, autobiographical remarks, and other asides. Such miscellaneous data are meaningful and may help to explain the phenomenology but they are not the phenomenology itself.

Nevertheless, some amount of reevaluation of the content categories themselves had to be anticipated. Indeed, the major test of a content analysis is the adequacy of the categories, although this test cannot be treated as an experimental hypothesis in the usual sense. The miscellaneous category especially might be expected to yield some new category of common responses. Revisions of some of the specific categories also might be necessary after final examination of the data. This has been standard in the methodology of content analysis (see Pool, 1959). Thus, it has been proposed that content analyses following some preliminary inquiries and guided by some hypotheses acquire additional scientific merit when scoring categories are constructed before the final research and then evaluated

after the data have been fitted to them more or less successfully (Berelson, 1971).

Precautions had to be taken to maximize chances that the data would be fit for statistical tests. It is known from previous research that the full range of possible responses is rarely represented in an individual protocol. In fact, one of the hypotheses in this study was that peak experience responses are limited by relevant personality traits. For instance, persons scoing low on a sensation seeking measure were expected to report peak experiences low in physical sensations but perhaps high in cognitive or other types of responses. A correlational statistic such as factor analysis might run into the mathematically undesirable situation of having numerous scores of zero for the individual subjects in particular categories entering into the analysis. To possibly forestall such a predicament, some easy collapseability was built into the content scoring categories. The categories reflected three dimensions of responses: presence of a response, reported loss of a response, and reported transformation of a response mode. Hence, self descriptions might be simple descriptions of one's self during the peak experience, or statements reporting loss of self, or reports of self being changed in the experience. If necessary to obtain adequate data distributions for

statistical analyses, two or even all three of these categories could be collapsed into one.

Since reevaluation of categories is a basic feature of content analysis, Kaplan and Goldsen (1949) have recommended that two separate interjudge reliabilities be calculated: a "gross reliability" calculated from judgments on the predetermined categories, and a "net reliability" calculated from judgments on the final categories. Their recommendation was adopted for this study.

Piloting Personality Measures

As already mentioned, subjects were highly resistant to personality measures. Although the special focus of this investigation was the phenomenology of peak experiences, some measures of personality variables were also desired. Common demographic data were sought. Subjects were asked their age, sex, highest level of education completed, and occupation. A measure of the subject's background in music or visual art was also desired, especially whether the subject had any ability in the medium.

A measure of certain aspects of personality was specially created for this study. It was the self-description

scale in the questionnaire. Laski had found that intellectuals are inclined to have intellectual ecstasies. This investigator hypothesized that the peak experience might mirror other traits too. For example, the person who is unusually active physically might experience an unusual number of motor impulses during peak experiences; the perceptually acute person might show an unusual predominance of perceptual responses during peak experiences; the very sociable person might experience an unusual number of social impulses during peak experiences, and so on. A scale was constructed to mirror appropriate categories of the content analysis in terms of personality traits. This self-description scale had seven subscales, each consisting of three items: (1) object perception, (2) self perception, (3) sensation seeking, (4) emotionality, (5) cognitive activity, (6) motor activity, and (7) sociability. In addition, the scale began with a single item asking about one's physical health. The object perception and self perception subscales were limited to the dimension of differentiation versus dedifferentiation, since this has been the major dimension in ecstasy reports. Items were distributed randomly throughout the scale, except that the physical health item was placed first.

This self-rating scale was developed through item analysis of successive versions. In the process many items were rejected while others were modified. The verbal labels for the four points of the response scale were also changed in the process. With each item having a possible high score of 4 and a low score of 1, the criteria for inclusion in the scale were a mean of approximately 2.5, a standard deviation of approximately 1, and a significant correlation at the .05 level with at least one other item of the same subscale. These criteria were not demanded in the case of the item concerning physical health. One hundred ten male high school seniors were subjects for the piloting of this scale.

The self-rating scale is essentially an economical self-report measure. The items are all straightforward. They have only face validity. No claim is made that the scale meets the standards of personality inventories. But the item analyses assure that the items can detect individual differences in the self-report responses to this scale. These self-reports furnished useful data in addition to the standardized personality measures included in the study. They had a more direct bearing on modes of functioning which might be involved in peak experiences.

Two standardized personality measures were included in the final questionnaire. One was a short form of the Marlow-Crowne approval motive scale devised by Strahan and Gerbasi (1972). With a variety of test populations, the ten item form used in this investigation had correlations in the .80s and .90s with the full length form of the scale. The approval motive measure was included in this investigation not merely as a control for social desirability in responses to others parts of the questionnaire but as a measure of approval-seeking itself, which, according to Maslow's accounts, should be reduced by peak experiences. The Marlow-Crowne is not a meaningful control instrument for use with the self-actualization measure used in this study (see Warehime & Foulds, 1973).

The self-actualization measure was the Existentiality scale of the Personal Orientation Inventory (P.O.I.), which was created by Shostrom (1966) specifically to measure Maslow's concept of self-actualization as a personality trait. The P.O.I. is at present the only standardized measure of self-actualization. It is the most relevant standardized personality measure for this study. However, there are some difficulties with it. Although the test manual and other published reports contain sufficient evidence that it is a valid and reliable measure of self-actualization,

the test is unnecessarily long and has overlapping scales. Tosi and Hoffman (1972) have called it "psychometrically impractical." Like Tosi and Hoffman's subjects, the pilot subjects in this experiment had considerable difficulty accepting the sometimes ambiguous forced-choices of the test and protested against its length. Subjects who had given descriptions of peak experiences refused to complete the P.O.I. But since it is the only standardized measure of self-actualization and that is hypothesized to be the principle correlate of peak experiences, some way of using the test was highly desirable. It was decided to use one of the longer, more valid, and more reliable scales from the test. That scale was the Existentiality scale, which is a measure of the value orientation dimension of self-actualization. It consists of thirty-two items. This scale has a higher reliability than any other scale in the inventory (.85) and has been more highly successful in distinguishing self-actualizing persons from others (Shostrom, 1966).

Hypotheses

Although such a relatively open-ended questionnaire as the one in this study may produce some unexpected findings, a number of specific hypotheses suggested by prior research

on ecstasy and peak experiences were formulated. They were:

a. The phenomenological elements in peak experience reports will form factors resembling Laski's typology of ecstatic experiences, i.e.,
   1. "Adamic" experiences consisting of primarily content analysis category 13D but also possibly including categories 4, 5, 6, 13B, and 13C.
   2. Knowledge experiences consisting of primarily content analysis category 8 but also possibly including categories 6, 7, 13B, 13D, and 13G.
   3. Contact experiences consisting of primarily content analysis category 12D but also possibly including categories 3, 6, 8, 12B, 12J, 13B, 13D, 13G, and 13I.
   4. Withdrawal experiences consisting of content categories 12A, 12B, 12C, 12E, 12F, 12G, 12H, 12I, 12J, and 12K.

b. The phenomenology of peak experiences will be related to subjects' age, sex, education, and art or music background.

c. The phenomenological characteristics of peak experiences will be related to subjects' self ratings on items reflecting personality traits, i.e.,
   1. Scores on cognitive responses will be related

to self ratings on cognitive items of the self-description scale.

2. Scores on sensation responses will be related to self ratings on sensation seeking items of the self-description scale.
3. Scores on emotional responses will be related to scores on emotionality items of the self-description scale.
4. Scores on motor responses will be related to self ratings on motor behavior items of the self-description scale.
5. Scores on perceptual responses will be related to scores on the perceptual items of the self-description scale.
6. Scores on self concept responses will be related to scores on the self concept items of the self-description scale.
7. Scores on social responses will be related to scores on the sociability items of the self-description scale.

d. Scores on the Existentiality scale of the P.O.I. will be associated with higher scores in the cognitive content analysis category of the peak experience reports.

e. The frequency of peak experiences in response to music or visual art will be related to the number of other kinds of peak experience triggers.

f. The number of different kinds of peak experiences reported will be related to subjects' age, sex, education, art or music background, scores on the approval motive scale, and scores on the Existentiality scale.

g. The frequency of peak experiences in response to music or visual art will be related to subjects' age, sex, education, art or music background, scores on the approval motive scale, and scores on the Existentiality scale.

Procedure

There were three steps in the procedure. First, there was a brief interview in which the investigator and the subject made initial contact. In this interview the investigator informed the subject that this was to be a study of experiences of beauty but not performances. The subject was encouraged to give as complete a description as possible of an experience. The subject was told that some measures of personality would also be involved, but that these would all be measures of normal, helathy functioning,

not pathology. The investigator explained that the subject could remain anonymous but that it might be interesting to the subject to follow up on his questionnaire through a later interview which would enable the subject to compare his responses to those of others in the study. These elements of the initial interview were also included in the instructions on the questionnaire itself. In fact, the initial interview followed the content and language of the instructions on the first and last pages of the questionnaire.

The second step was for the subject to complete the questionnaire. The subject was allowed to do so in the place of his choice and to take as much time as he deemed necessary.

The third step was the postexperimental interview. Subjects were not strictly obliged to participate in this interview, although they were encouraged to do so. The purposes of the postexperimental interview were to enable the investigator to question the subject about any incomplete or ambiguous responses on the questionnaire, to answer any questions the subject might have, and to hold a general discussion about the topic of the questionnaire.

People who did not wish to collaborate in the study were asked for an explanation of their refusal whenever feasible, so that the investigator could form some impressions about why some people did not wish to cooperate in the study.

After the questionnaires were returned, the peak experience reports were transcribed by the investigator prior to content analysis. Transcriptions retained the spellings, punctuation, etc. of the originals. The investigator separated phrases in the descriptions into units for content analysis. The unit for analysis was the smallest meaningful discrete unit, which was ordinarily a single word or a short phrase.

Since the scoring categories were discrete rather than continuous, three judges independently performed the content analysis of the peak experience descriptions, and then the probability of their agreements was calculated in the manner suggested by Sandifer, Fleiss, and Green (1968). One of these judges was the investigator.

CHAPTER 6:
RESULTS OF THE STATISTICAL ANALYSES

Completed appropriate protocols were received from a total of 103 respondents. Of these, 52 described visual art experiences, and 51 described musical experiences. Among the visual art respondents, 45 reported that they paint or do some visual art work themselves. Among the music respondents, 40 reported that they play a musical instrument. Altogether only 18 respondents were appreciators but not music or visual art producers. Females slightly outnumbered males in the sample. Thirty visual art respondents and 27 music respondents were female, making a total of 57 out of 103 respondents female. Of the 18 respondents with no music or visual art ability, 8 were female.

Unusable protocols were received from 22 persons. Seven contained no description of an experience but had all the other questions answered. One had only a one word description of the experience, and that word was the very unusual response, "loneliness," which would not be sufficient to meet Laski's criteria for ecstasy. A few were descriptions of performances rather than mere appreciation. Two involved a vicarious experience of achievement through identification

with performers who were in these cases friends of the appreciators. Two were descriptions of utterly negative experiences, intended, according to their authors, to relieve the researcher of the tedium of dealing with a profusion of joyful accounts. A few were descriptions of experiences under the influence of drugs or alcohol, which produce a different phenomenology. Two were disqualified on the grounds of inappropriate stimuli--in one case a cat walking in the rain, in the other a father's response to childbirth. One, from one of the youngest respondents, an eighteen-year-old, was singular in reporting an experience which was only moderately intense; this person had never had an experience she would describe as extremely joyful.

The Content Analysis Results

Interjudge reliabilities were calculated on the basis of agreement by at least two out of the three judges, using the probability formula proposed by Sandifer, Fleiss, and Green (1968). This computes the probability of items being placed in the correct categories when the categories are discrete. The gross reliability was computed from agreements in sorting the data into the thirty-three categories defined in the Content Analysis Scoring Manual.

The gross reliability of the judgments made on all of the data (music and visual art protocols combined) was .95. Gross reliabilities were also calculated for each type of peak experience report separately; for the music accounts it was .96, and for the visual art accounts it was .94.

Due to the small numbers of responses in some of the content analysis categories, some categories were combined before proceding with the statistical analyses. Net reliabilities were calculated for these final categories used in the data analyses. All of the net reliabilities, whether for visual art and music combined or taken separately or for the different ways categories were combined to test phenomenological and personality hypotheses, were .98.

The total number of response items scored was 1,389. Of these, 1,357 were judged to belong to the thirty-two specific categories described in the manual. Twenty-four items were later placed in a new category labelled, "Return to Normal." These items were descriptions not of the loss of ordinary functions but of the loss of peak phenomena. Only eight items remained in the miscellaneous category. If one were to think of the scoring manual as an implicit hypothesis about the content of the data to be analyzed (see Berelson, 1971), this manual constituted a very

adequate prediction of the phenomena.

The net categories for the phenomenological categories were as follows: (1) sensations, (2) motor responses, (3) emotions, (4) cognitive responses, which included attentional responses and aesthetic judgments, (5) social responses, (6) motivational responses, (7) functional losses, consisting of all losses except loss of self, (8) loss of self, (9) transformations, including self transformations and all transformations of normal functioning.

The net categories for the personality variables analyses combined losses and transformations with ordinary aroused functions, e.g., object perception, loss of object perception, and transformed perception of objects. The resulting categories were: (1) object perception (scoring manual categories 1, 3, 12A, 12B, 13A, 13B); (2) self perception (categories 2, 12D, 13D); (3) sensations (categories 4, 12E, 13E); (4) cognitive responses (categories 7, 8, 12H, 12I, 13F, 13G); (5) motor responses (categories 5, 12F); (6) social responses (categories 9, 12C, 12J, 13C, 13H); and (7) motivational responses (categories 10, 12K, 13I).

Means and standard deviations for the phenomenological and personality variables are given in Tables 1, 2, and 3.

Although responses in some of the phenomenological categories were somewhat scant for either music or visual art, pooling the music and visual art data yielded distributions suitable for factor analysis. Significant differences in some means of Tables 1 and 2 remained visible in the subsequent analysis of factor score correlates and will be discussed in that context.

Factor Analysis of the Phenomenology

Principal components analysis with varimax rotation was used to form the phenomenological factors. The correlation matrix appears in Table 4 and the factor analysis results in Table 5. Factors with eigenvalues greater than 1.0 appear there. The four factors accounted for 60.5% of the total variance. It can be seen that transformations loaded positively on Factor 1 and negatively on Factor 2 and that sensations loaded positively on both Factor 2 and Factor 3.

The factors seem easy to name. The first, consisting of transformations, cognitive responses, and motivational responses can be called a "renewal ecstasy." The second can be referred to as a "motor-sensory ecstasy." The third can be called "withdrawal ecstasy," which even in Laski's definition included physical or quasi-physical sensations. For the name of the last factor, the loss of self will be

Table 1

Means and Standard Deviations for Peak Experience Phenomena with Losses and Transformations Separate from Arousals

Phenomena	Music and Visual Art		Music		Visual Art		Differences	
	M	SD	M	SD	M	SD	Means: t-tests	Variances: F-tests
Sensation	2.08	2.04	2.47	2.36	1.69	1.59	1.96*	2.20**
Motor	1.32	1.63	1.69	1.73	0.96	1.46	2.30*	1.41
Emotional	1.78	1.53	2.00	1.64	1.56	1.41	1.47	1.36
Cognitive	2.89	3.12	2.59	2.67	3.19	3.50	0.99	1.72
Social	0.72	1.22	0.63	1.10	0.81	1.34	0.75	1.51
Motivational	0.47	0.75	0.33	0.59	0.60	0.87	1.80	2.18**
Loss of Function	1.06	1.39	0.98	1.38	1.13	1.42	0.56	1.05
Loss of Self	0.51	0.86	0.55	0.81	0.46	0.92	0.51	1.29
Transformation	1.57	1.62	1.18	1.48	1.96	1.67	2.53**	1.27

*$p < .05$.

**$p < .01$.

Table 2

Means and Standard Deviations for Peak Experience Phenomena Combining Losses and Transformations with Arousals

	Music and Visual Art		Music		Visual Art		Differences	
							Means:	Variances:
Phenomena	M	SD	M	SD	M	SD	t-tests	F-tests
Sensation	2.26	2.12	2.71	2.47	1.83	1.62	2.13*	2.33**
Motor	1.59	1.80	1.86	1.73	1.33	1.83	1.52	1.12
Emotional	1.83	1.57	2.06	1.67	1.60	1.45	1.50	1.33
Cognitive	2.81	3.11	2.61	2.60	3.00	3.56	0.64	1.87*
Social	0.86	1.39	0.75	1.25	0.98	1.52	0.86	1.48
Motivational	0.52	0.84	0.39	0.67	0.65	0.97	1.60	2.11**
Self Perception	1.42	1.46	1.41	1.30	1.42	1.61	0.04	1.54
Object Perception	1.57	1.88	1.25	1.81	1.88	1.91	1.72	1.11

*$p < .05$.

**$p < .01$.

Table 3

Means and Standard Deviations for Personality Variables with Differences between Music and Visual Art Respondents

	Music		Visual Art		
Variables	M	SD	M	SD	t-test
Age	32.02	10.67	31.40	10.79	0.29
Education	16.65	2.08	16.15	2.00	1.23
Existentiality	20.49	4.10	22.15	4.45	1.98*
Approval Motive	3.41	1.77	2.79	1.67	1.84
Frequency of Peaks	3.57	1.55	3.06	1.64	1.63
Number of Triggers	4.53	1.97	5.10	1.49	1.64
Object Perception	9.20	1.56	9.83	1.90	1.84
Self Perception	8.31	1.66	8.31	1.63	0.02
Sensation Seeking	7.39	1.92	7.96	1.78	1.56
Emotionality	8.67	1.73	9.44	1.64	2.34*
Cognitive Activity	9.20	1.77	8.98	1.77	0.62
Motor Activity	8.04	1.60	7.94	2.02	0.27
Sociability	7.76	2.11	7.81	1.96	0.11
Physical Health	3.71	0.54	3.71	0.50	0.06

*$p < .05$

**$p < .01$.

Table 4

Correlation Matrix for the Factor Analysis of Peak Experience Phenomena

Phenomena	1	2	3	4	5	6	7	8	9
1. Sensation	1.00								
2. Motor	.32**	1.00							
3. Emotional	.08	.17	1.00						
4. Cognitive	.16	.21*	.07	1.00					
5. Social	-.14	.08	.03	.07	1.00				
6. Motivational	.12	.21*	.14	.20*	.08	1.00			
7. Loss of Function	.19	.09	-.01	.11	-.17	.07	1.00		
8. Loss of Self	-.04	-.12	.10	-.10	-.01	-.08	.06	1.00	
9. Transformation	.05	-.17	.10	.24*	.14	.20*	.08	-.06	1.00

*$p < .05$.

**$p < .001$.

Table 5

Factor Analysis Loadings of Peak Experience Phenomena

Phenomena	Factors 1	2	3	4	h^2
Transformation	.79	-.39	.03	.04	.77
Cognitive	.63	.23	.07	-.12	.47
Motivational	.56	.28	-.07	.09	.41
Motor	.06	.88	-.03	.01	.77
Sensation	.18	.54	.47	-.01	.54
Loss of Function	.21	.03	.73	.07	.58
Social	.27	.02	-.70	.06	.57
Loss of Self	-.20	-.23	.14	.77	.70
Emotional	.21	.29	-.13	.70	.63

Note. Factor 1 accounted for 20.2% of the variance, Factor 2 for 15.0%, Factor 3 for 13.0%, and Factor 4 for 12.3%.

phrased positively as a merging of self with the object of perception, so that it can be called "fusion-emotional ecstasy." Three of these four factors are substantially as hypothesized. Precise comparisons with Laski's typology will be made in the next chapter.

Factor Scores, Triggers, and Personality Variables

Factor scores were generated for each respondent. Scores on the first factor, renewal ecstasy, were positively related to visual art triggers (in a correlation with visual art coded as 1 and music as 0), $r = .23$, $p = .02$, to existentiality, $r = .20$, $p = .04$, and to sensation seeking, $r = .20$, $p = .04$.

Scores on motor-sensory ecstasy were related to musical triggers, $r = -.28$, $p = .004$. With music coded as 0, this negative correlation expresses a positive relationship. As was also apparent from Table 1, some phenomena were specifically related to the medium of the aesthetic experience.

Withdrawal ecstasy scores were correlated with self-ratings on differentiation in self perception, $r = .19$, $p = .05$, and with self ratings on sociability, $r = .20$, $p = .04$.

Factor scores on fusion emotional ecstasy were not related significantly to any other variable in this study.

Temporal Sequences in the Phenomenology

Although the questionnaire asked for the description of the peak experience in a temporal sequence of five stages, respondents frequently answered in terms of three stages. When describing the beginning of the experience, they described everything up to the most intense point, ignoring the questionnaire's distinction between, "How did the experience begin?" and "How did the experience develop?" The second question was sometimes skipped and sometimes answered with the equivalent of, "See above." Likewise, the ebbing of the climactic phase and the immediate afterwards effects were telescoped by many respondents. Consequently the phenomena were described in a simplified three-stage sequence: pre-climactic, climactic, and post-climactic events.

Chi-square tests were used to determine if there were sequences in the phenomena across the three stages of the experience. Two visual art respondents completely ignored the sequence of questions, so their data were not included in this analysis. The results are presented separately for music and for visual art in Tables 6 and 7.

The majority of phenomena were associated with

Table 6

Phenomena Associated with Temporal Stages in Music Peak Experiences

Stages	Phenomena	Chi-square	p
1	Cognitive Responses	27.85	<.001
1 and 2	Loss of Self	5.86	<.05
2	Motor Responses	4.66	<.10
3	Emotional Responses	23.71	<.001
3	Transformations	15.10	<.001
3	Social Responses	9.81	<.01

Note. Sensations, motivational responses, and loss of functions were not associated with any particular stages in music experiences.

Table 7

Phenomena Associated with Temporal Stages in Visual Art Peak Experiences

Stages	Phenomena	Chi-square	p
1	Cognitive Responses	4.29	< .10
1 and 2	Loss of Self	9.75	< .01
2	Motor Responses	24.00	< .001
2 and 3	Loss of Functions	5.62	< .05
3	Motivational Responses	22.37	< .001
3	Transformations	17.96	< .001
3	Emotional Responses	13.15	< .01
3	Sensations	7.98	< .02

Note. Social responses were not associated with any particular stages in visual art experiences.

particular temporal stages in the experiences. Stages 1 and 2 were rather similar for music and visual art. Stage 3 exhibited some differences. In music experiences social responses were not aroused until stage 3. In visual art experiences sensations and motivational responses were not aroused until stage 3.

Sex Differences in the Phenomenology

The only significant sex difference in the means of the peak experience phenomena was a higher score for males in social responses, $t = 2.04$, $p = .05$. The variances of males' scores were greater in the cases of social responses, $F = 2.53$, $p = .01$ (with losses and transformations included, $F = 1.78$, $p = .05$) and loss of self, $F = 1.87$, $p = .03$.

The Phenomenology of Performers versus Non-performers

Although the number of respondents with no musical or visual art ability was somewhat small (namely, 18), their scores on the phenomenological variables were compared to the scores of the other respondents. There were no significant differences in the means of performers versus non-performers. However, scores of performers showed greater variances in transformations, $F = 2.73$, $p = .02$, and in motivational responses, $F = 2.69$, $p = .03$ (with losses and transformations

included, F = 3.17, p = .01).

The Phenomenology and the Self-rating Scales

None of the self-rating scale scores was related to approval motive scores. Nor was any related to age. Two were correlated with education, both negatively, namely, emotionality, r = -.28, p = .005, and sociability, r = -.19, p = .05. However, correlations between scores on the self-rating scales and scores on content analysis categories yielded none of the hypothesized relationships.

A few significant correlations which had not been hypothesized did turn up, 7 out of 136 correlations. Acuity in object perception was significantly related to motivational responses, r = .20, p = .02, and to motor responses with losses and transformations included, r = .19, p = .05. Differentiated self-perception correlated significantly but negatively with social responses, r = -.24, p = .02 (with losses and transformations included, r = -.25, p = .01). Sensation seeking was related to motivational responses, r = .19, p = .05. Sociability was correlated significantly with transformations, r = .19, p = .05, and with self-perceptions during peak experiences, r = .22, p = .02.

Factor analyses did not simplify this assortment of odd correlations. For example, principal components analysis of the self-rating subscales produced three factors with eigenvalues over 1. The first factor, accounting for 28.3% of the variance, contained the following items (with their loadings): emotionality (.82), sociability (.63), sensation seeking (.62), and acuity in object perception (.54). The second factor accounted for 17.1% of the variance and consisted of motor activity (.77), physical health (.67), and acuity in object perception (-.50). The third factor, which accounted for 15.8% of the variance had loadings over .40 only for cognitive activity (.88) and differentiated self perception (.77). Factor scores derived from these were correlated significantly with phenomenological factor scores or variables in only 2 out of 63 instances. Scores on the first factor were negatively correlated with loss of self, $r = -.20$, $p = .04$, and with cognitive responses, $r = -.24$, $p = .02$.

The Phenomenology and Other Personality Variables

Besides the personality variables already described--sex differences, ability differences, and self-rating scale scores--age, education, existentiality, and approval motive were tested for relationships with the peak experience phenomena. Age was correlated negatively with reported loss

of normal functions during the peak experience, r = -.21, p = .02, and negatively correlated with motor responses, r = -.20, p = .04. Education was not significantly related to any phenomenological variable. Approval motive was correlated only with cognitive responses, r = .28, p = .005 (with losses and transformations included, r = .30, p = .002).

The positive relationship of existentiality scores to renewal ecstasies has been cited already. As for individual phenomenological elements, four were positively correlated with existentiality scale scores: self-perception in the peak experience, r = .30, p = .002; transformations of self or of normal functioning, r = .26, p = .01; object perception in the peak experience, r = .20, p = .04; and loss of normal functioning, r = .19, p = .05.

Frequency of Peak Experiences and Number of Triggers

Respondents reported the frequency of their peak experiences of music or visual art and listed the number of other triggers which generate peak experiences for them. There was no significant correlation between these two measures.

Separate stepwise regression analyses were used to

predict (1) the frequency of peak experiences and (2) the number of triggers from the following variables: visual art versus music, age, education, sex, ability versus none, existentiality, and approval motive. These regression analyses had been planned beforehand to cope with possible overlap among the predictor variables. But no great overlapping, or shared variance, existed among these variables, none of these was related to the frequency of peak experiences, and only existentiality among these variables was notably related to the number of triggers, so that regression analyses were no more instructive than simple correlations in this instance. Neither frequency of experiences nor the number of triggers was significantly related to the medium of visual art versus music, or to the respondent's age, education, sex, ability in the medium, or approval seeking propensities.

Frequency of peak experiences was positively correlated with self-rating scale scores on differentiated self-perception, $r = .24$, $p = .02$. And frequency of peak experiences was negatively correlated with both physical health, $r = -.26$, $p = .01$, and motor responses (including losses and transformations), $r = -.21$, $p = .02$.

The number of triggers listed by each respondent was

correlated positively with existentiality scores, $r = .19$, $p = .05$, and with two scores from the self-rating scales, emotionality, $r = .31$, $p = .002$, and normal level of motor activity, $r = .25$, $p = .01$.

Other Triggers

When asked in the questionnaire to list triggers other than the kind focused on in the peak experience description, respondents in the music and visual art groups produced rather similar lists. These are presented in Table 8. Nature triggers were always large features, such as, the seashore, mountains, woods, wind, or a blueberry patch rather than fine details or life processes. Achievements were as diverse as cooking, winning at sports, playing a musical instrument, and growing plants. Among the triggers mentioned only once were: acting, chess, drugs, mathematics, New York, old people, Paris, picnicing, teaching, television, weddings, and writing.

Visual art respondents listed music as a trigger significantly more often than music respondents listed visual arts, χ^2 (1) = 4.79, $p < .05$. Otherwise there were no significant different differences between the triggers mentioned ten times or more in either list. But in each list are some unique, less frequently mentioned triggers.

Table 8

Frequency of Other Peak Experience Triggers Listed by Music and Visual Art Respondents

Music Respondents		Visual Art Respondents	
Trigger	Frequency	Trigger	Frequency
Nature	36	Nature	33
People	19	Music	31
Poetry & Literature	19	People	26
Visual Arts	16	Poetry & Literature	25
New Ideas	14	New Ideas	18
Sensory Experiences	14	Sex	17
Sex	12	Sensory Experiences	14
Sports	11	Dance	12
Dance	9	Sports	8
Achievements	9	Children	6
Architecture	9	Looking at People	6
Movies	7	Drama	5
Ballet	6	Ballet	4
Theatre	5	Architecture	4
Conversations	5	Conversations	3
Animals	4	Animals	3
Home	3	Travel	3
Religious Experiences	3	Dreams & Daydreams	3
Miscellaneous	14	Miscellaneous	9

CHAPTER 7:
DISCUSSION AND FURTHER PROBINGS

The peak experience reports furnishing the data for this study amply rewarded the pilot studies of ways to ask for the descriptions. The accounts were much fuller than other reports outside of literary contexts. The language of the descriptions was often "rhapsodic," as Maslow (1970b) had discovered, but often decisively staccato, chopped into pieces, just concatenations of phrases. Obtaining these peak experience descriptions was like trying to borrow money. It revealed striking differences in people's attitudes towards their experiences.

Attitudes towards Participating in the Study

Approximately 2,000 persons were contacted individually by the investigator and asked to participate in this study. In addition, repeated newspaper ads in an arts-oriented weekly with a distribution of more than a half million copies appealed to others.

From all these people, about one hundred expressed an initial willingness to participate. Almost invariably, these people led the investigator to other potential

respondents. Such contacts through acquaintance networks swelled the number of people who requested a questionnaire to nearly five hundred. Yet three-quarters of these never responded any further, and another handful responded with incomplete or otherwise unuseable protocols. What happened to these willing participants?

Whenever possible, the investigator contacted them again. Their explanations, like those of the pilot respondents before them, were never roundabout. All did indeed have a history of intense experiences. In all cases these experiences were considered extremely valuable. It was the very value of the experiences which led persons to reneg on their initial agreement to participate in the study.

There were those who would not and those who could not describe their experiences. Each group nearly always thought that other people would be like-minded. The attitude of the unwilling was expressed this way by one person:

> I am going to have to go back on my promise to get your questionnaire filled out. I started thinking of filling out one myself, and I realized I would never want to make these events public--even to a single other person. Once that personal decision was made, I couldn't ask people I know to do that which I myself was unwilling to do.

Representative of the unable was this response:

> Although the description of the project interested me in it in advance, I found the questions themselves beyond me. I have been a professional performing musician for twelve years, and now am at a loss to simplify my responses to the degree required--and then to verbalize the simplification. I report this to you in case it may be of some interest in classifying the replies later on.
>
> I must also report that I am not alone in my position of the spectrum [sic]: a number of other professionals with whom I also play chamber music have seen your questionnaire on my coffee table--they have stated unanimously that they would be unable to participate (and I must also say they would be highly resistant). You may be pleased to know that nobody has been indifferent.

Respondents who did complete the questionnaire had strong convictions about it too. One, who declined an interview afterwards, returned his questionnaire carefully completed but torn into quarters and tied with a black ribbon. Nearly everyone who was interviewed after completing the questionnaire felt that describing his experience and then discussing it with the interviewer did not detract from the value of the experience but rather enhanced it. Most respondents did re-live the experience to some extent when describing it, and recalling it set off an aftershock of other little peaks. Describing a peak experience reminded people of their capacity for ecstasy. The memory of the peak experience, when touched, was a stimulus to seeking more such experiences.

What respondents wanted to know most of all after

completing the questionnaire was how their experiences compared to those of others. Most began with the impression that such experiences are practically identical for everybody or that others had more interesting experiences. They were surprised, and apparently delighted, when the investigator pointed out unique elements in their experiences. Respondents did not anticipate the variety of peak experience types. They were also astonished, as Maslow would have been, at the range of triggers which can set off peak experiences.

Music and Visual Art Triggers

Respondents could nearly always give the exact names of the triggers which initiated the peak experiences they described. The array of triggers was broader than Maslow had considered possible. Music triggers included vocal and instrumental works, classics and popular pieces. If, as Maslow suggested, peak experiences are the hallmark of aesthetic value, then one would be obliged to give full aesthetic value to Christmas carols, folk songs, and rock 'n roll as well as to music from operas, ballet, baroque compositions, classical and modern 'serious' composers.

However, only Bach and Mozart were named as often as four times each, and only Beethoven and Wagner as often as three times each. Classical composers were mentioned most

frequently, twenty times. Modern 'serious' composers were cited seven times. Opera, an overlapping classification, was the trigger in ten cases. Popular music was credited nine times, including five mentions of rock 'n roll.

Visual art triggers included landscapes and portraits, nine abstract works, sculptures, line drawings, two films, one configuration of fossils, one architectural work (a church), and one sight of 7,000 falling dominoes which had been arranged by the respondent. The largest category of visual art triggers was impressionistic paintings, accounting for fifteen cases. In only two instances were the visual art stimuli reproductions rather than original works. Thirteen reports were of experiences resulting from, or continuing over, the viewing of a collection of paintings rather than a single work. The specific artists mentioned more than once were Michelangelo (five times), Rembrandt and Van Gogh (three times each), Matisse and Monet (twice each). The only individual work specified twice was Michelangelo's David.

Maslow and Laski were right in emphasizing the peak experience potency of the classics. But both underestimated the potencies of contemporary or popular music and visual art forms. Laski's disappointment at not finding any mention of

tactile impulses in the appreciation of sculpture would be more than relieved by one female respondent whose appreciation of Michelangelo's David included this: "I felt like taking my hands and touching each part of the sculpture.... I was and still am, deeply impressed by David's ass. The curves were truly sensuous and grabable."

The foregoing quotation also raises the question of exactly what features of an art work or musical work people respond to. What was it about Michelangelo's David, a Jackson Pollock canvas, Beethoven's Ninth Symphony, or some improvised rock music that excited peak experiences? It was not always the features most cherished by critics or by the artists themselves.

The peak experience accounts were scrutinized to see if respondents specified what features of a work triggered their reactions. Among the music accounts only twelve did not spontaneously specify some particular feature of the work or of the situation which instigated their peak experiences. Thirteen respondents were stimulated by performances rather than by the musical work itself; in two reports it went so far as identifying with conductors in the performances of their roles. In these accounts the musical selections might just as well have been different ones. What was done was inconsequential compared to the way

it was done.

Sixteen music respondents credited the overall composition or some large part of the composition with evoking their peak experiences. Eight responded to somewhat isolated elements of the music, such as, the crescendos, the beat, the high note; these might be called fragmentary responses. Two accounts told of an identification with the composer and an appreciation of his genius. Four respondents were caught up in the plots or personalities of operas; these might be called thematic responses. To these thematic responses could be added any other responses which consisted of grasping the idea or communication of a musical work, except that no such response was reported. Apart from the operas, no music was considered a vehicle of communication for ideas or emotions in any of the accounts in this study. Two of the music experiences were mostly nostalgia, hearing favorite melodies and daydreaming. Three were responses not only to the music but also to the concert hall and to the rest of the audience.

Visual art accounts spontaneously specified certain features of the work as crucial in all but fifteen cases. Sixteen of the visual art experiences were fragmentary

responses, that is, reactions to somewhat isolated elements of the work, like the color or the shapes. Seven were responses to the overall composition. Thus the ratio of fragmentary and overall compositional responses is virtually reversed as one goes from music to visual art accounts. Equally contrasting were the thirteen thematic responses among visual art reports, including responses to ideas or feelings being communicated through abstract works as well as through representational works, and eight responses which were identifications with the artist himself. As far as the person behind the work is concerned, music tends to produce admiration but visual art to produce identification. Visual art is experienced less detached from the artist; perhaps the performer detaches music from the composer. Finally, in twelve instances visual art works engendered peak experiences by successfully creating illusions. These included illusions of reality in paintings and sculptures and illusions of movement in abstract paintings.

Visual art experience involves a greater contact with the artist, more apprehension of thematic content, and more fragmentary responses to the medium itself. In music the medium is the message. The composer and content are virtually vanished. The work is often swallowed up by the performance. But, when grasped, the work itself is more often appreciated in its totality.

When answering questions about all their past peak experiences with music or visual art (items 21 to 24 in the questionnaire) 92% of visual art respondents reported having had an intense experience when looking at a work for the first time, compared to 73% of music respondents who reported having had such an experience when hearing a musical work for the first time. On the other hand, 78% of music respondents had had an intense experience on contact with a trigger previously encountered but not reacted to so strongly; only 61% of visual art respondents reported having ever had this stronger reaction in a later encounter with a trigger. Thus, there is a hint of some difference in responsivness to music versus visual art in first and later encounters, $\chi^2 = 6.50$ (3), $p < .10$.

Visual art may make its impact more immediately than music and, if the impact is not intense at the first encounter, it may be less likely to be so at a later encounter. However, the majority of respondents in both groups reported having had some peak experiences from triggers previously less potent. Novelty is not an essential feature of peak experience triggers. This is all the more evident from the fact that 81% of visual art respondents and 80% of music respondents reported having had peak experiences from the same tirggers on more than one occasion.

More often than not, people expected a trigger of a past peak experience to produce such an experience again at a later encounter. Among music respondents, 53% expected a past peak experience trigger to evoke the experience again; 74% reported making special efforts to hear again music which had been the source of past peaks. Among visual art respondents, 58% expected a past trigger to be effective again on a later occasion, and 69% particularly sought out the same triggers again. Apparently not everyone who seeks out the trigger again expects the peak experience to happen again. For some persons, seeking the experience again is a nostalgic, wishful but not hopeful act.

Music respondents were more narrowly focused on musical triggers in seeking further experiences than visual art respondents were focused on visual art triggers. Of music respondents, 84% tried to recapture experiences by listening to the same music again, and 61% sought to recapture experiences by listening to other music. Only 45% tried to recapture the same kind of experiences through non-musical stimuli. But of visual art respondents, 73% sought to recapture experiences through other kinds of triggers. Only 63% tried to recapture experiences by further

contact with the same trigger, and only 54% by contact with other visual art triggers.

Those who do not believe it is possible to recapture an experience through later contact with a given trigger are a sizeable minority. They tend to believe, as Maslow did, that a peak experience must be a grace, i.e., an unsought, unexpected boon. Respondents remarked, "They cannot be sought," and, "If you seek beauty or 'intense experiences,' you often pass them by without even noticing them." Replying to the question of whether one expects triggers to evoke the experience again, one respondent answered, "Yes, but I know that it isn't possible." Another answered, "No, but I hope it will." Conflicting hopes and expectations commonly characterize later contacts with peak experience triggers.

Conditions Facilitating Peak Experiences

When respondents were asked to tell what the day of their peak experience was like before the experience itself, it was mainly to sharpen their recollection of the experience. Yet it provided some general information about their moods prior to their experiences. Most respondents could recall what their days had been like. Although

eighteen music respondents answered they had been in no especially happy or unhappy mood, only eight of the visual art respondents answered that their mood had been normal, ordinary, or usual. Negative moods had characterized the day for six music and three visual art respondents. The largest number of respondents, twenty-seven in the visual art group and twenty-two in the music group, reported having been in an especially happy, anticipatory mood when they approached the peak experience triggers. These data indicate that there are no necessary mood conditions for a peak experience to occur, but positive moods are more likely to facilitate the occurrence of the experience.

When answering the specific questions about conditions which facilitate or hinder peak experiences, respondents again revealed a disconcerting diversity of individual differences, evading simple models for peak experience programming. Consider, for example, the circumstance of other people being present. Quite apart from any discomforts or distractions which might be associated with large crowds,

being alone was listed as a necessary condition for peak experiences by four music and eight visual art respondents. Being with other people, however, was listed as a facilitating circumstance by three music and three visual art respondents. The mean self-rating on sociability for those who described others as hinderers was 6.67 and for those who described others as facilitators was 8.33 These are very small samples; a *t*-test contrasting these means was insignificant. But personality differences are suggested.

Another four music respondents said that other people could be either facilitators or hinderers. As facilitators, other people may influence one by having the peak experience first and communicating it or by accepting a share in one's own experience when it is communicated to them. As hinderers, other people may inhibit one's expression of emotion, or create an unwanted obligation to verbalize the experience, or simply fail to reinforce an experience by not having it themselves.

No matter whether one regards other people as facilitators or hinderers, in aesthetics as in other affairs, one friend is the equivalent of a crowd of strangers. Perhaps this is so because a friend has a temporal extension,

filling one's past and future as much as a crowd may fill one's physical surroundings, resulting in comparable net reinforcements.

Likewise mentioned as facilators by some respondents but as hinderers by others were one's everyday interests and concerns, having great expectations when approaching the trigger, and being still under the influence of a previous peak experience. A painting or musical rendition becomes more poignant when it either reflects or challenges the moods or preoccupations of the perceiver, but less poignant when it is irrelevant to them. Great expectations may generate self-fulfilling prophecies or else impose inordinate demands on the trigger. As for strings of peaks, they may physically exhaust the person for a while or they may produce rising standards of aesthetic excellence which result in falling numbers of adequate aesthetic triggers, or else they may raise mood levels to a point from which it is but a short step up to a peak.

The physical setting was considered an important factor by nine music and nine visual art respondents. They agreed on the importance of acoustics or lighting as well as more general comfortable and attractive surroundings. But some people respond more in expansive settings, and some in intimate settings. The architectural feat would be to provide intimate yet expansive settings--like a small nook on a mountaintop. The partitioning of many small boxes in some old opera houses may have provided more than privacy and protection from winter drafts. Visual art galleries have never been so fortunately designed.

Although peak experiences can occur under other conditions, twenty-one music and nineteen visual art respondents said that peak experiences are facilitated by such factors as being rested, alert, in a positive mood, having a feeling of well-being; and hindered by factors like tiredness, anxiety, depression, illness, or being under pressures. Hence, it was surprising to find a negative

correlation, r = -.26, p = .01, between the reported frequency of peak experiences and the self-rating on physical health, indicating that less healthy persons had more peak experiences. Yet it would seem that, in spite of or in contrast to one's customary physical health, feelings of well-being usually characterize the particular moments when peak experiences are likely to happen.

The Stages in Peak Experiences

Although the questionnaire was designed to prod respondents into describing their peak experiences in the five-stage structure of pleasure experiences composed by Buchenholz and Naumburg, respondents overrode the format of the question by generally responding in terms of only three stages: onset, climax, and afterglow. Buchenholz and Naumburg's method of combining thousands of fragmentary accounts into one composite account may have led them to treat as stages of one experience a variety of phenomena which are in actuality different kinds of experiences. They might have been on firmer ground with a typology of

experiences rather than proposing a single multi-staged model of all pleasure experiences.

In this study, based on fuller descriptions from individual respondents, three stages in the peak experience were distinguished in the phenomenology. Phenomena were not unique to particular stages, but certain phenomena predominated in each stage. The pattern of stage specific phenomena which were not as predicted was one evidence that respondents were not merely inventing details suggested by the experimenter. The fact that the descriptions violated aesthetic norms for music and visual art also vouched for the authenticity of the accounts. And the absence of any correlates of approval motive seeking was a third basis for confidence in the peak experience accounts.

Turning to the stages of the aesthetic experiences, one finds that cognitive phenomena were concentrated in the first stage. These consisted of aesthetic judgments and analytical approaches to the triggers as well as disruptions of perceptual set, like surprise and amazement. Also

concentrated at the beginning of the experience but extending through both the first and second stages was the phenomenon of loss of self. The following excerpts from respondents' descriptions illustrate the onset of their peak experiences. Respondents whose code numbers began with 1 were from the music group; visual art respondents' code numbers began with 2. These excerpts were their answers to the questionnaire items designated in parentheses within the quotations.

> (10) It began with a general awareness of the quality of the music and reached its peak at a particularly beautiful section, in which it preserved all the separate elements that go into music as well constructed in themselves yet merging perfectly to form a beautiful whole. This engendered extreme satisfaction. (11) I became less aware of my immediate surroundings and more immersed in the music. (Respondent 109)

> (10) Being surrounded in sound from pianissimos right through. I marvelled how so many could sing as one. I soaked in the interplay between singers and orchestra. (11) I kind of forgot where I was and was kind of wallowing in those beautiful sounds--hearing the word painting in the music. As time went by I was less conscious of my immediate sorroundings. (Respondent 108)

> (10) A friend had told me about this painting. In expectation of it I had presumed it was a large canvas with a rather novel motif. When I saw it at first I was surprised. It fulfilled none of my expectations. (11) The painting invited me into itself. It beckoned me to surrender, to be quiet, to enjoy. The reality of this painting became a factual delight for me: a fact that increased my joy. (Respondent 242)

The sole phenomenon especially concentrated only at the

climax of the peak experience reports was gain or loss of motor responses. These included locomotion, changes in posture, and movements of distinct parts of the body, for example, opening of the mouth, acceleration of heart beat or breathing, shivers. Foot or finger tapping and shadow conducting were common responses to music. Gross animation was more common in music experiences. Visual art experiences more commonly involved transfixiation or fantasied gross movements. Acceleration or deceleration of the movements of the heart, lungs, or other muscles occurred in both music and visual art experiences. It was the change in motor responses, not the motor responses themselves, which was noteworthy.

Besides the loss of self extending from the first stage into the second and the motor responses preponderant in the second stage, there were, but only in the visual art accounts, losses of normal functioning beginning in the second stage and extending into the third. This included loss of sense of time, loss of spatial orientation, loss of reality testing, and loss of sensations. Here are some prototypic climaxes.

> (12) I felt as though I could bear it no more, almost that I would leap from the balcony. (Respondent 120)

> (12) I became aware of a feeling of elevation, as though my mind were not part of my body, but floating

above it, in complete freedom. The music seemed to be a force that could be felt moving through my body. My thoughts were very free floating, although the sounds and vibrations of the music held my attention. I was completely free. (Respondent 123)

(12) At the height of the experience, I felt an intense ecstasy, happiness, and pleasure. Not being able to sit still, literally, I needed to move around my room, grinning from ear to ear with sheer pleasure. I could just picture the street in Savanah, near the Pirate's House, not too far from the river. (Respondent 140)

(12) The soprano sang a great high Bb. I was stunned. I experienced chills down the spine. I was unable to sing the opening of the next movement (tutti). I had no desire to sing any more. (Respondent 149)

(12) At its most intense point, the main metaphor of the work was revealed. I experienced a loss of gravity and began tumbling through this new and exhilarating space. I felt a great feeling of scale and vastness, and a total loss of anxiety. (Respondent 206)

(12) Feeling of being transported into the landscape, of being surrounded by nature, i.e., light, air, greenery, mts. Could almost hear the wind rustling the trees. Felt I could walk around the landscape. Probably the large canvases contributed to the feeling that I was <u>in</u> the picture plane, not outside looking in. (Respondent 230)

(12) 1. Seeming cessation of all sensual awareness other than sight. 2. A feeling of falling or reaching out or encompassing. 3. I stood absolutely still, I think. (Respondent 237)

The third stage of both music and visual art experiences is where emotional responses and transformations clustered. That was also where social responses congregated in music experiences and where sensations and motivational responses massed in visual art experiences. As peak experiences extend through time, despite the short overall duration, the

phenomena diversify. The post-climactic phase is likewise where the greatest differences in experiences occur. There is a popular and true, it seems, belief that in ecstasy intellect yields to emotion, although the climactic motor responses in between have not been so commonly appreciated. Examples of music and visual art experience endings illustrate the lower intensity but greater diversity of phenomena in the afterglow stage.

> (13) Delighted that I'd shared again in the experience of Ravel. (14) I wanted to talk about the feelings I'd felt with someone else and I also felt my need to produce. (Respondent 101)
>
> (13) Gradually I cam down to a pleasant high and this feeling ebbed and flowed with the intensity of the music. (14) I was calm and happy, but ready for anything else that might have happened. (Respondent 103)
>
> (13) Transported for a few moments. A feeling of great good will--troubles and cares were gone--everything seemed right and wonderful--a feeling of having been in touch with something great and beautiful, yet not quite understanding it. (14) There was a great feeling of being uplifted, ennobled--joy in having stumbled onto the concert by accident, the richness of the experience, marvel at how differently I could feel so suddently. (Respondent 128)
>
> (13) Calm, relaxation, quiet pleasure. (14) Felt I was still in dream world. Hard to get back to reality. Magic remained in memory as I went about house getting dinner, etc. (Respondent 133)
>
> (13) After the slowing down of time (as well as a narrowing and focusing of the space around the work) there is the pleasure of knowing that the vague personal intuitions that I am barely aware of can be made concrete and that there is a visual language for what can just barely be felt. I also feel that if these artists can say the un-sayable, then I too can hope to

> do so. (14) There is a certain desolation when the minutes of intense communication come to an end and usually because of aesthetic fatigue. There is the promise to the self to return to this state of consciousness again. (Respondent 203)
>
> (13) Feeling of elation and satisfaction; desire to run home and paint. (14) Buoyant; feeling of well-being. (Respondent 207)
>
> (13) I was very calm, peaceful, satisfied feeling. (14) Peaceful effects--wanting to try and paint in the same style. (Respondent 227)
>
> (13) I was aware. All my senses were top form and I just felt that I wanted to create, to be able to express myself on those terms. (14) I was happy, laughing, carrying on with my friend--joking--It was like a relief. (Respondent 245)

Although the common social response at the end of a peak experience is a desire to share the experience with another person, there were reports of wanting to be alone for a while afterwards. It is more usual during the initial and climactic stages of the experience to want to maintain solitude even if immersed in a large audience. Being alone may be necessary until the experience has subsided and possibly even longer, namely, until the experience has been reflected upon, conceptualized, and evaluated. Apart from the functional advantages of aloneness, the very rarity of peak experiences enhances the feeling of aloneness during them. The pattern of intensified solitude followed by intensified desire for contact with another person is visible in the report of a visitor to the Medici tombs. Not counting

the entombed Medici and Michelangelo's four figures, Day, Night, Dawn, and Twilight, the narrator recalled that there seem to have been a few other persons in the tombs during this experience of aloneness.

> (13) The more I examined each of the four figures, the more I experienced a feeling of joy yet I began to get choked up too. I felt quite removed from people--as if what I was seeing had nothing to do with humans and transcended everything I knew. I felt quite alone. (14) The tombs were closing and I had to leave. Otherwise I might have just sat there. I felt quiet on the way out but after a while anxious to share the experience with someone. (Respondent 213)

The motivational afterglow of peak experiences usually consisted of a desire to enjoy such an experience again in the case of someone with no ability in the medium of the experience. But in the case of someone with musical or visual art ability the motivational afterglow generally consisted of a desire to perform and a confidence that one could perform better than ever before. Laski's segregation of ecstatic and inspirational experiences appears valid for non-performers. Where ability is already present, however, ecstasy infuses inspiration. Among artists, whose stimuli stand still as the experience passes, the inspirational response circled back to cognitive approaches to the triggers. Their experiences often ended in practical lessons.

> (13) I stood transfixed for about 10 minutes. I then began to walk around the statue, observing it from a

> number of angles. I looked at it for about an hour and then began wandering through the rest of the gallery. After the initial cathartic feeling of about three minutes in length I began to develop a sort of analytical set toward the statue, evaluating its color, texture, etc. It was a much more deliberate experiencing of the statue than the initial experience. (Respondent 231)
>
> (13) Satisfaction and relaxation. I sat for a long time looking at the paintings and then began to analyze technique. (14) I wanted to tell others about the works and watch their reaction. (Respondent 237)

The Duration of Peak Experiences

The majority of respondents were able to estimate the length of each stage in their experiences. Stage 1 was entirely absent in the cases of eighteen music and eighteen visual art respondents. These persons reported that their experiences occurred instantly at full strength. The range of time estimates given by other respondents for stage 1 extended from two minutes to three-and-a-half hours for music experiences and from one minute to three hours for visual art respondents. The distributions of these time estimates were unimodal and very peaked but skewed. Responses clustered more towards the shorter time estimates. The most appropriate index of centrality was the median. For music experiences the median length of stage 1 was thirty minutes; for visual art experiences it was fifteen minutes. Music itself is structured to approach a climax gradually, whereas visual art is not. Yet the respondents' experiential

climax does not usually correspond to a musical work's compositional climax; the experiential climax tends to be premature. On the other hand, the experiential climax in visual art is retarded more than the trigger itself demands.

The length of the most intense point was shorter than the preliminary stage but longer than commonly supposed. Forty music and 38 visual art respondents estimated the length of the climactic phenomena. Again distributions were skewed towards the shorter time estimates, but they ranged from one second to three hours for music and from fifteen seconds to two hours for visual art. The median for music experiences was five minutes and for visual art experiences seven-and-a-half minutes.

The duration of the afterglow phenomena was estimated by 40 music and 36 visual art respondents. Distribution patterns were as before. Ranges extended from one minute to two days for music and from ten minutes to two weeks for visual art afterglow phenomena. Medians were thirty-five minutes and two hours, respectively.

Such skewed data is difficult to test adequately; median tests yielded a significant difference between music and visual art experiences only for the length of stage 1, χ^2 (1), = 6.36, p = < .02. The data suggest that music

experiences start slower, then climax and dissipate faster than visual art experiences. Visual art experiences start faster and last longer.

Consistency in the time estimates of the three stages was greater in the music accounts than in the visual art accounts. Out of forty music experience reports with time estimates, twenty-nine were consistently above or below the median (sixteen above and thirteen below). Out of thirty-nine visual art reports, only eighteen were consistent in time estimates (nine above and nine below the medians). These differences should not be exaggerated, however. Among both music and visual art respondents, most cases of inconsistency were marked by time estimates weaving just slightly over and under the medians for the three stages. On the whole, there is a pattern of experiences being longer from beginning to end for some people than for others, which is more evident among music respondents.

The transition from the first to the second stage of the experience was sometimes described as rapid and sometimes as gradual. But the transition from the second to the third stage was nearly always gradual. The uplifting to the peak is sometimes a surprise, but the subsequent return to reality comes as no surprise. In about five cases, including some very ambiguous ones, the letdown was slowed by

a deliberate stillness calculated to hold the peak phenomena longer. The usual post-peak feeling was contented satiation.

The duration of a peak experience is probably not a noteworthy variable in relation to the impact of the experience on one's personality. Although the respondents' existentiality scores were related to several phenomenological elements, they were not related to the duration of experiences. It is the content, not the length of the experience which is significant.

The Phenomenological Typology

Four types or stages of ecstatic experience had been described by Laski and were expected to appear in these data when factor analysis was applied. Of the four phenomenological factors which were predicted, three appeared rather much as predicted, namely, knowledge, contact, and withdrawal experiences. The factor with a significant loading for cognitive responses had an even higher loading for transformational responses and also included motivational responses. It seemed more appropriate to call this factor as it appeared here a "renewal ecstasy." The cognitive element may be much more pronounced in the kind of ecstasy which predominated in Laski's study,

religious ecstasy. "Enlightenment" appears more typical of religious experiences than of aesthetic ones.

It also seemed more appropriate to use the word "fusion" instead of "contact" for those ecstasies in which the person loses individual identity and merges with the trigger. Some religious mystics might prefer the word "contact" in order to avoid hints of heresy if one spoke of fusion rather than merely contact with God. But many religious mystics and nearly all secular ecstatics describe the phenomenon as a fusion, not just a contact with the trigger or other surrounding reality.

Emotional phenomena had been expected to be much more evenly distributed across the ecstatic factors. They turned out to be related strongly only to fusion phenomena. It was to call attention to this chaste relationship that the label "fusion-emotional ecstasy" was proposed here.

The "Adamic" ecstasies of Laski combined transformations with sensory, motor, and emotional responses. They commonly alluded to a rebirth, a rejuvenation, a new creation, or a pristine universe. Such allusions were almost entirely absent from the music and visual art accounts. One respondent reported ""memories of a musical "Elysium""(Respondent 105). Only one respondent reported

that she "felt light, like a kid, very young, free," and she was an unmarried twenty-two-year-old. If Laski was correct about religious celibates overvaluing sexual analogies in their ecstasy descriptions, perhaps the same is true of celibates' attitudes towards birth, towards children and childhood, towards primitive societies, and towards the physical universe itself.

Laski does appear to have been right about sexual similes. Only five out of 103 reports made any references to sex. One (respondent 234) was a report of masturbating in response to a stimulus, which is no simile. Another spoke of an ache "akin to the sensation of sexual desire" when looking at great paintings (Respondent 203), which expressed the hope more than the realization of ecstasy. The only outright comparison of the peak experience to orgasm came from a sexually inexperienced young man (Respondent 142). The fourth and fifth references to sex came from older, married men who specified a contrast between their music experiences and sex, saying that "the excitement did not die as it does after orgasm" (Respondent 114), and "the total feeling could only be said to be what one wishes in orgasm" (Respondent 122).

Wonderful, miraculous states and events have provided

the analogies for religious experiences. For the secular person, who has created no sacred universe through abstinence and sees no miracles in sex, society, history, or material things, there are no apt analogies for ecstasy. They simply describe the experience in itself. It is not compared to something else. Their metaphors are few and undeveloped. For example, a sensation of "floating" is reported somewhat often, but it is never developed into a simile such as "floating in air like a bird." A sensation of "immersion" was common, too, but only one respondent (146, see page 232) approximated a metaphor of an "oceanic" feeling. Quite simply, nothing can compare with ecstasy.

Well, almost nothing. A single respondent (113), who was elevated on stage at Carnegie Hall while singing in the chorus of Bach's St. Matthew Passion, reported that, upon hearing the solo, he "seemed to begin to be walking as a giant on mountains,...now extending from one mountain into the steep vault of the sky." The dramatization of Mount Calvary and the on-stage scaffolding elevating the person might be sufficient to explain this analogy. Not even Maslow drew upon the imagery of peaks in describing ecstasies. He used the word "peak" in its faded meaning of "optimal" or "maximal." It referred to a level of functioning, not anything like a Jungian archetype, just a dead metaphor.

The only other imagery to appear in any of the music and visual art reports are images explicitly proffered by the triggers. A person viewing a landscape may imagine that he enters physically into that landscape. A person viewing a portrait may imagine the painted person coming to life before him. The known allusions of program music may conjure up the intended visions of seas or shepherds. In ecstasy attention is riveted to the trigger. What the trigger does not command, the respondent does not think of. Freud's (1936) suggestion that "oceanic" experiences be studied by analyzing the fantasies accompanying them would have resulted in practically nothing to analyze in these accounts. He disclaimed having had such an experience himself.

Laski's rule that sexual imagery in a non-celibate's ecstasy report might be a tattletale sign of fraud could be generalized to the rule that any imagery imposed by a secular respondent in a report of ecstasy is reason to suspect that the account is counterfeit. If an ecstasy is to be compared to something, that something must be sacred. In secular accounts, similes would be profane.

Thus a type of music and visual art ecstasy appeared in which motor and sensory responses predominated as they do in religious "Adamic" accounts but without the imagery and

transformational phenomena of the latter. These motor-sensory ecstasies in fact were negatively related to transformational phenomena. An experience in which motor responses and sensations predominate does not make a person feel qualitatively different. These are quantitative and flighty experiences. The heart beats faster or slower, breathing quickens or subsides, perspiration increases, shivers and chills and tinglings pass through the body without leaving a trace behind. Transformation implies some permanence. Those functions of the organism which have storage capacities, cognition and motivation, are the functions associated with transformations of the person. They appear only in renewal ecstasies.

Although secular ecstasies do not ignite visions of a pristine world, they do alter perceptions of the existing world. They engender overbeliefs about the world. These are myths, but myths not trapped in the past. Nor are they visions of future utopias. The utopias gestated by religious ecstasies are possible societies attainable through moral persuasion. They are the world as it should be, not the world as it is. The secular also comes out of ecstasy with a more optimistic view of the world. But he claims his new vision is a view of the world as it is, actually, already. The world itself has not been altered; and it need not be.

The eyes of the ecstatic have been opened; and they needed to be. What they see contains the tragic when the music or visual art itself does. Still, a beauty is imposed over all. On hearing Puccini's Madame Butterfly a respondent (112) realized, "Life was worth living. There is beauty in life. Violence is present all the time. Life consists in many facets. No consistencies." A person (Respondent 215) looking at Rembrandt's Jeremiah Contemplating the Destruction of Jerusalem experienced "a sense of revelation; total concentration with a feeling of great sorrow/sympathy for the weaknesses of mankind." The ecstatic cognitions in aesthetic responses qualify fully as "overbeliefs." They concern "life," not single episodes, "mankind," not certain people.

Although perceptions of the real world are altered in peak experiences, the experience itself is often described as an excursion into the unreal. This description, however. typically appears during the transition from the climax to the letdown stage. The climactic phenomena are real when they are present; it is only in retrospect and in contrast to usual experience that they are seen as unreal. Indeed, in the climax ecstatics often claim to see things for the first time "as they really are." Yet the return to normal is described in terms like these: "exhilaration, a sense of

being high and then coming--floating back to the real world" (Respondent 108); "nostalgia--not wanting to face reality" (Respondent 112); "the rest of the world crept back on me" (Respondent 214); "it was like coming out of a daydream when everything slowly comes back into focus" (Respondent 251).

If one must decide which world is the real one, that of the peak experience or that of everyday experience, it is rare for secular ecstatics to stand on Plato's side by arguing that the ideal is the more real. Thus the secular ecstatic dispenses with primordial golden ages and future utopias. Yet he experiences a world apart from the present reality. It is neither past nor future; it is side by side with present reality. One could reconcile these two worlds by saying they are not two realities but two perceptions of reality. However, ecstatic experience does not leave one feeling the need for such an accomodation which substitutes two perceptions for two realities. It was no accident that James (1958/1902) went directly from a description of ecstasy to a discussion of philosophy. The epistemological conundrum created by ecstasy is the bridge from physics to metaphysics. Seculars seldom cross the bridge. Still, they will not deny either the reality of the peak experience or

the reality of everyday experience. A hallmark of ecstatic experience is the affirmation of paradoxes, including the paradox of two separate realities.

Thus, there are differences between religious ecstatics and aesthetic ones, both in phenomenology and in cognitive aftermath. But the similarities far outweigh the differences. The withdrawal and fusion-emotional ecstasies are nearly the same. The renewal ecstasies of aesthetics are more motivational and just a bit less cognitive. The aesthetic motor-sensory ecstasies are most different, lacking symbolic and mythological "Adamic" content but retaining the same sort of physical and quasi-physical phenomena.

Prototypic examples have been selected to illustrate the typology of aesthetic experiences. For each type of ecstasy, one music and visual art report were chosen. These examples were chosen by looking at factor scores and taking as illustrations accounts with high scores on one factor but relatively low scores on the other factors. These examples are the nearest to pure types, although there were no completely pure specimens in the data. First to be presented are renewal ecstasies with their triggers as described by the respondents when answering item 7 on the questionnaire.

(7) Act II of Tristan und Isolde. (10) I was lying on a bed with my eyes closed, anticipating what I have known in the past to be a great experience. This time the whole piece made more sense than ever and I began to "understand" the reason for every note in the piece. (11) I gradually began to lose the intellectual cognizance of what was happening in the music--the side ended and I put the next record on. The love duet began and I felt no longer any sense of time or place and a complete and intense relationship with the music began to develop. (12) The hearing of the music began to leave the area of my ears and I felt like I was hearing with my entire body. With this came an awareness of my body for the first time. Waves, like electrical waves, seemed to be going through my limbs and the total feeling could only be said to what one wishes in orgasm. (13) There was a sudden return to a point considerably less intense than Answer 10. I was fully aware of where I was, what had happened, what the music was doing, when Wagner was born, and all the other intellectual apparatus of a more common musical experience. (14) I felt exhilarated (no longer lazy) and thought about the piece. I felt like crying for the realization of the drama of the opera was now complete and indeed quite overwhelming. (Respondent 122)

(7) A book 'Dali by Dali' one of his many abstract fourms [sic]. (10) First I saw the entire impression that the artist had conveyed on the surface. Then as I begun [sic] looking further and probing deeper, I saw more indept [sic] detail hidden deeper within the picture. The more I pondered and probed, the more I became intrigued. (11) The more I got into, the more I got out of it. The more subject matter was there. The more I was pleased with myself, the artist, the picture, and the entire concept. (12) At the most intense point I experienced understanding, awareness, love, warmth, happiness, joy, wonder, a deep inner glow all spelling Beauty. (13) Satisfaction, accomplishment, accord, gratefulness, reality, fantasy, tranquilty [sic], fascinated, motovation [sic]. Love. (14) Tranquilty [sic], peacefulness, Stimulated. (Respondent 241)

Seven music and twenty visual art reports had their highest factor loadings on the renewal ecstasy factor. That this factor was more related to visual art stimuli has

already been noted. So has the stronger relationship of motor-sensory ecstasies to music stimuli. Motor-sensory factor loadings predominated in the cases of eighteen music and ten visual art reports. Examples follow.

> (7) Beethovin [sic] 9th Symphony. (10) I turned on the radio at the beginning of the first movement. I was very happy because I recognized it immediately. It was one of my favorites. I settled down in a comfortable chair with a glass of orange juice. I felt relieved, somehow, immediately. (11) I anticipated the themes that were coming up. I "shadow conducted" a bit. I was feeling more and more loose. I was diving into the music and letting it surround me. I started singing along with the chorus. I got up from my seat and walked about my room. I felt exhilerated [sic], released, joyous. I felt as if I were walking on air. My heart beat faster and I experienced a "chill" in my spine. (13) The symphony ended. I returned to relatively normal almost immediately although I kept humming the themes of the 4th movement for some time. I was not listening to the announcer's voice. I retained the relaxed feeling I had attained during the broadcast. (14) Refreshed and relaxed. I felt as if my problems had diminished considerably. (Respondent 146)

> (7) Evatless' low fiberglass cylinders, like so many waste baskets, asymetrically shaped and spaced; also a wall piece; same medium a grid of boxes. (10) I'm probably describing a composite of the type of experience I've had several times at least. First, I'm surprised each time to encounter such great work. I walk around the piece. (11) The surprise is followed by a feeling of enjoyment/pleasure mixed in small bits with admiration. The pleasure continues (in this continuation is the seeds for the "extreme intense" quality.) (12) The excitement starts moving me too fast. I get restless (with the excitement); it gets in the way of my seeing, I feel nervous, I find I'm thinking too much, and that gets in the way too, at the high point. I guess, essentially, I pull myself out of it. (13) I plan to come back. I walk on to other works or other places and enjoy but not deeply. I'm usually feeling quite good with the memory. The experience doesn't end--it flickers for weeks, sometimes, in recall. (14) See previous answer. (Respondent 223)

Withdrawal ecstasies were far more numerous than in Laski's data. Highest loadings were on this factor for twelve music and thirteen visual art reports. As the following examples show, withdrawal is not merely a phase preceding tumescense but the major component of a fairly common kind of ecstasy, at least among aesthetic experiences.

> (7) Rhapsody in Blue by George Gershwin. (10) I began to have difficulty keeping my place in the music. I began to feel high. (11) As I became more absorbed into the music, I lost my place. My body felt electrified. I felt like moving with the music, so I did. (12) I forgot about the audience and the other musicians around me. I felt as if there was only me and the music. I felt like I was going to explode. A tremendous chill ran through my body. (13) I felt very alone and I wished I were. (14) I was completely exhausted. I wanted to be alone to try to recapture the memory in my mind. I felt tired but satisfied. (Respondent 136)

> (7) A print of a Matisse collage. Very simple. Blue female nude on white bkgd. Abstract. (10) [Respondent skipped questions 10 and 11 because the experience began instantly at peak strength.] (12) Complete respect. The beauty of the form completely overpowered me. I could not walk away from it. Its beauty brought me very close to tears. I couldn't speak (a friend had been speaking to me). My eyes followed every curve of the work. (13) Drained. After about one-half hour of not moving my friends got quite impatient and began to leave. I almost desperately tried to capture every detail in my mind and upon leaving ran back to see it again for a minute. (14) Extremely withdrawn from everyone. I felt very moved; not joyous--more sadness. (Respondent 225)

Fusion-emotional ecstasies accounted for fourteen music and nine visual art reports' highest factor loadings. Although Laski had rated contact ecstasies highest on a

scale of desirability, these ecstasies characterized by fusion with the stimuli were not related to personality transformations, which Laski and others regarded as key to an experience's value. By coincidence, in both of the examples below the respondents ended their accounts (in reply to item 15 on the questionnaire) by explicitly denying that their experiences had any long lasting effects on them.

> (7) Symphony--don't remember composer. (10) [Respondent skipped questions 10 and 11 because the experience began instantly at peak strength.] (12) The only way I can describe it is as being at one with the music and not only with the music but with the people, concert hall, etc. It was as if it were inside me. I can't remember any feeling but a sort of crazy joy. (13) Don't remember. (14) Quietly happy. It had no effect except that I was in a good mood--contented. (15) No.

> (7) It was a painting of Joan of Arc. I don't recall the painter. But I remember that I found it hard to believe that she wasn't real. (10) Her face struck me at first. I felt pulled into it. I wanted to share the experience but it was so intensely personal that it could not be shared. I felt a kind of private frustration. (11) As the experience developed I moved or tried to move away from St. Joan to her surroundings. But she almost walked out of the painting. It was as if she had been waiting for me. (12) I felt somehow spiritually tied to this work of art and was very reticent to leave. I think I had selfish feelings as if the painting belonged to me and no one else shared it unless they truly could become one with it. At the same time I was certain no one else was capable of this but me. (13) I don't know. I can't remember. (14) I think I felt special, peaceful, for a short while. I was separated from those around me. (15) None that I am aware of.

Even from the prototypes reproduced above, one can appreciate the overlap between the types of ecstasies. The overlap is not usually so great that one could not assign an account to a particular category emphasizing its predominant characteristics. One could simplify the challenge of classification by adopting a rule like Laski's, that an account be placed in the "highest" category for which it can qualify. A scale from lowest to highest for these four types of experience would be partially arbitrary at this point. Significant correlations with personality variables provide grounds for wanting to specify if an experience belongs to the renewal or withdrawal categories; both of these are associated with desirable personality traits. but, at least so far, there are no correlates for motor-sensory or fusion-emotional ecstasies. What one would be looking for, then, is to see if an experience contains the elements of a renewal or withdrawal ecstasy. There is less empirical reason for specifying motor-sensory or fusion-emotional types. To illustrate overlap between types and to provide a taxonomical challenge for the reader, an account has been chosen on the basis of factor scores as the prototype of overlap.

> (7) The works of art, although one particular piece stands out, was an exhibition of Rembrandt Jan Rijns works with others of his time and members of his guild. He is famous, granted, but the ability of line

and mass is tremendously controlled. The Windmüle, as well as his Christus, portraits all were etchings. (10) Arriving in Biberach I found the museum, paid my fee and went upstairs into the gallery. I remember thinking the trip was not long. All the way I had thought about the graphics of Rembrandt, about the museum closing, and missing the exhibit. When I got upstairs it was about 2:30 the gallery was empty. I thought: I am alone with the man's works, Jesus! Watery eyed, I sought his works, I had waited a long while to study the real impressions, not a reproduction in a book or calendar, or the latest Lampoon. I felt like we were meeting each other--two etchers, one Greater. (11) As I saw the first, I felt I must hasten through them, probably for fear of their disappearing and at the same time that I must savor each one individually for the longest time possible. I saw the lines, the paper, the Man working, painting what would one day be locked in a vault, and when I thought that, I realized they were just hanging on a barren wall, with no one around, the simplicity of the meeting was significant enough in my state. I kept thinking "Jesus!" (12) Looking at the Etching of Rembrandt J.R. I thought how many years separated us, I even believe I greeted him--silently, because I did not think I could speak. I felt rather dizzy, like with elation and jubilance at meeting an important figure, only greater. I then became conscious of my breathing and my eyes focusing sharply and fogging. Thats when I realized I had been inching closer to the picture and was fogging it with my breath causing it to haze distortedly. I had just stood there staring. (13) A cold rush of wind that was able to drain me physically emotionally--I had finally been able to see what I had waited a long time to see--Etchings, copper drypoints of Rembrandt's own hand. I also felt thirsty, hungry, creative, satisfied, sleepy and poor. Rather jumbled, but aware it was time to go, that what an exhibit I had seen and became enlightened on the technique of etching. I wished also that the last picture was not the last, I could keep on looking. (14) I was tired and hungry, I felt like I had to leave hurridly, get some place to see what what [sic] I had come away with--if I could think technically about what I evidenced. I started planning several etchings technically that I had thought about doing. Now I was ready. I thought a great deal while returning to Ulm. (Respondent 238)

Finally, there is something missing from the typology presented here. No mention has been made of "cathartic" experiences. These may be of two kinds. One kind may be synonymous with withdrawal ecstasies and, hence, require no further comment. The other kind consists of encounters with the tragic in aesthetic stimuli. In what ways are experiences with tragic stimuli different from other peak experiences?

Most obviously, encounters with tragic stimuli nearly always arouse affects like sadness and compassion. Yet not always. A few respondents can have an entirely joyous or awe-filled reaction based on appreciation of aesthetic form or technique. These unusual respondents catch nothing of the tragedy which the artist or musician may be trying to communicate. Discussion of the properties of aesthetic triggers which evoke peak experiences has already shown how people may respond to fragmentary or compositional components without regard to thematic content.

Do the majority of encounters with tragic stimuli take the form of withdrawal ecstasies? No. Seldom is the answer. Although nearly half of the reports of tragic experiences included a mention of being "drained," "exhausted," "powerless," "depressed," or the like, tragedy reports even more often included feelings of being "up,"

"buoyant," "filled," "excited," and the like. When "down" phenomena did occur, they often followed a climax of "up" phenomena.

Experiences including negative phenomena numbered seventeen. All were responses to stimuli with explicit tragic content. The tragic music stimuli were mostly operas. When these seventeen experiences were placed in the typology on the basis of factor scores, six were renewal ecstasies, five were motor-sensory ecstasies, three were fusion-emotional ecstasies, and three were withdrawal ecstasies. Cathartic experiences were adequately accomodated by the proposed typology. As suggested in Chapter 2, they were resolved into joyous affects, sometimes earlier in the experience and often in the last part of the afterglow stage. An example of a cathartic experience, even labelled so by the respondent, is this account of hearing a live performance of Berlioz's Romeo and Juliet.

> (10) I remember being tremendously overwhelmed by the pathos and sorrow and beauty of the idea involved, of the whole idea of Shakespeare behind the music and the tragedy involved, or identifying with the sorrow. (11) The same feelings of identification continued; I cried through a good deal of it. (12) I wept at the most tragic points (the various movements which describe Romeo alone, sorrowing, etc.)-- at certain intense climaxes I closed my eyes tightly, sort of clenching them shut. (13) A feeling of utter catharsis and a belief that the experience was a rare one in my concert-going experiences. (14) Exhaustion, elation, too. (Respondent 107)

Intense versus Moderate Experiences

The questionnaire asked respondents to distinguish extremely intense from moderately intense experiences. This was intended primarily to encourage respondents to give a description of an experience considered extremely intense rather than an experience more typical or more recent. However, this distinction was followed up by exploratory questions (items 18 and 19 in the questionnaire) aimed at discovering whether there are qualitative differences between moderately and extremely intense experiences. Answers to these questions varied greatly, and some respondents gave no answers at all. Nine respondents answered that the differences are not qualitative but merely matters of degree of intensity of phenomena. A far greater number, about sixty, allowing for ambiguity in some responses, maintained that there are some qualitative differences.

About a dozen respondents gave unique and sometimes contradictory answers in defining extremely versus moderately intense experiences. Unique answers were: active perception in extreme experiences versus passive perception in moderate experiences, passive perception in extreme experiences versus active perception in moderate experiences, solitary versus shared with another person, shared with

another person versus solitary, drained sensation versus fulfilled feeling, incomprehensible versus understandable technique in the stimulus. So far, the answers underline respondents' individual differences.

There were other responses with greater consensus. In defining moderate experiences, four respondents noted a greater self-consciousness, six a greater awareness of the environment, and sixteen reported that moderate experiences are characterized by a more rational, analytic appreciation of the music or visual art. In defining extremely intense experiences, two respondents noted a qualitative change in ideas or understanding, ten asserted the distinguishing factor was a loss of self, nineteen reported that total concentration or involvment was the difference, and twenty-two said that what marked extreme experiences was the presence of physical sensations and strong emotions. In the larger categories of answers, music and visual art respondents were rather evenly represented.

The answers support Maslow's conceptualization of peak experiences as primarily perceptual phenomena. Total concentration on the stimulus as a whole summarizes many of the responses. The notion of total concentration is linked, as some respondents specified, with loss of

self-consciousness and obliviousness to the environment as well as with perceiving the stimulus in its totality. Total involvment, fascination, obviates analytic approaches to the stimulus. Peak experience perception is not piecemeal; it embraces the stimulus as a whole and has eyes for nothing else. It is a lover's gaze.

People also judge as extremely intense experiences containing high levels of physical and emotional excitement. Chills, tears, throbs, floating, gasping, and seizure are among these extreme phenomena. Experiences may satisfy this criterion without any explicit awareness of perceptual phenomena or loss of self. Hence, high levels of physical and emotional excitement can be an alternate definition of extreme intensity, not just an added specification.

Long-lasting Effects Attributed to Peak Experiences

Item 15 in the questionnaire asked whether the particular experience described had any long-lasting effects. Seven respondents explicitly stated that the experiences they described did not. Another five respondents gave no answer to the question. The remaining ninety-one respondents attributed some long-lasting consequences to their experiences.

Although the duration of these effects varied starting from as little as one day in one case and sometimes was specified as a number of years, over half the people said these effects were permanent. Specific shorter intervals usually corresponded to more recent dates given for the experience which had been described. Hence, even the effects limited to a given period of time generally were permanent although still somewhat new.

Twenty-seven respondents told of an enduring and vivid memory into which they sometimes retreat or from which they still draw pleasure or inspiration. The memory revives, in part, the original experience. For instance:

> (15) It remains today and will probably endure to the end of my life as an indelibly moving experience. It was a unique experience, and I still feel grateful for having been fortunate enough to have participated in a historic, personal, musical experience. (Respondent 106)

> (15) The renewal described in #14 is an ongoing process. The memories of these events are a constant reminder of what can be done, and towards which one must strive. (Respondent 111)

> (15) I often think of the experience with feelings of pleasure, and it conjures up a fleeting impression of contentment, peace. I have since bought some books on the subject of this particular school of painting. (Respondent 230)

> (15) Whenever I visualize these paintings I sort of recapture my initial reaction of joy to these works. (Respondent 248)

Twenty-six respondents reported a lasting appreciation of the specific music or visual art trigger, or its particular style, or of the individual artist, composer, or performer. This appreciation does not necessarily hinge on the belief that renewed contact with the trigger will renew the ecstatic experience. Typical responses were:

> (15) I bought the opera. Play it constantly but never capture that moment again. I love the opera dearly. (Respondent 112)
>
> (15) My estimation of Bernstein (as a conductor) is still much higher than it had been before that concert. (Respondent 121)
>
> (15) I just kept on singing the song in my mind. The exper recurrs [sic] when I am bored and start singing to myself to relieve the monotony. (Respondent 141)
>
> (15) An appreciation of Dinnerstein's way of painting. (Respondent 217)
>
> (15) Have particular fondness for the picture. Have reproduction of it at home; have returned sev. times to see painting in its new Shellpuik room at Phillips and watch others discover it. (Respondent 218)
>
> (15) I loved Cezanne. (Respondent 226)

A more general appreciation of music or visual art experiences was reported by ten respondents. For these people the ecstatic experience engendered overbeliefs about aesthetics. They recorded effects like these: "Just a further reinforced appreciation of the uplifting capabilities of musical composition" (Respondent 109); "It probably served to reinforce my beliefs about what the arts can do

for one--how important they are" (Respondent 128); "Only a deeper conviction of the potential of the plastic experience" (Respondent 206).

Although intense aesthetic experiences seem to smooth the path for more experiences in many cases, there were a few instances of the experience creating barriers to future appreciations by raising aesthetic standards. Four respondents reported using their peak experiences as the measuring stick in later encounters with music or visual art. The result was a narrowing of aesthetic responsiveness, as in these examples:

> (15) It is sufficient in itself, but I have often been disappointed in later performances. I believe I use it (and similar though not so intense experiences) as a standard which I hope will be nearly met at some time. (Respondent 120)

> (15) It has increased my love for natural phenomenon and has kept me from seeking other natural beauties. It has made me have less patience with certain forms of modern art. (Respondent 233)

An analagous dichotomy of effects is found in religious ecstasies, most of which result in a levelling of religious differences but some of which result in a sharpening of religious differences.

Twenty-one respondents said their experiences had some sort of "total" effect on them, altering their self

appreciations, their relationships with other people, their attitudes towards life or the world in general. This effect was always in the positive, optimistic direction. Optimism is indeed a widespread and lasting effect of many modes of ecstasy. What may be a bit different about the optimism of these accounts is that it is an optimism of the present, not a utopia oriented optimism. In terms of the political implications of shared ecstasies, it is the optimism of liberals but not of radicals, reformers but not revolutionaries. Here is how it was expressed:

> (15) Yes, they did. Having experienced such intense feelings, knowing therefore that they are possible creates a frame of reference that is larger than anything that preceded it. Those moments, however rare, help to make more of the mundane experiences possible--on the one hand--because its like biding one's time until it happens again, while--on the other hand--it makes much of life's experiences frustrating and anxiety producing because by comparison these seem like so much wasted time and energy. (Respondent 114)

> (15) Hard to judge, but mostly I was more receptive and vulnerable emotionally. I was still involved in the piece, and kept hearing it in my mental ear. Part of my joy was in having confirmation that I was <u>capable</u> of such strong involvment and emotional flow, that I could free myself or be freed from watching my feeling from a distance and judging them and reducing them. (Respondent 118)

> (15) The long range effects were to be more open with some of my friends and to be happy about life and my relationships with other people. (Respondent 205)

> (15) The effects are now part of me and shall always be so. They are what create the person within me. (Respondent 241)

Most highlighted among the lasting effects in five accounts were impulses to produce music or visual art. These were all persons who already possessed music or visual art abilities. Of the total sample of 103 cases, not one was an account of an experience which converted a non-performer to a performer. Some discussions with non-performers led to the impression that if the inspiration to become a performer occurs during an appreciative experience, that particular experience is practically terminated insofar as attention diverts from the stimulus to a fantasy about oneself as an accomplished performer. The experience may also be diverted from an appreciation of the stimulus to an intense identification with the musician or artist. Or it may alternate between these foci.

Among the protocols received but not used in this analysis were two vicarious achievement experiences, in which the ecstasy consisted of identifying with a performer's accomplishment, and two achievement experiences of performers themselves. The phenomenology of achievement experiences may be quite different from the phenomenology of appreciation experiences. It was with this in mind that the respondents had been requested to describe an appreciative experience rather than an experience of personal aesthetic accomplishment.

In fact, the achievement experiences reported stressed uncommonly altered perceptions of the self of the performers.

Returning to the motivational effects of simple appreciation on persons with performing abilities, one finds comments like this : "An experience like that would make me want to practice towards making my own performances as meaningful to others--that's the reaction I get to a meaningful serious experience" (Respondent 150).

Long-lasting emotional effects were recorded by eight respondents. These were among the more transitory long-lasting effects with a median duration of "two or three days," although one respondent avowed that the emotional effect lasted "years." Dramatic changes in mood level are a common immediate effect of peak experiences, but single experiences are not liable to alter moods for more than a few days.

An effect which visual artists have sometimes striven to achieve is to alter a person's visual perception of objects. Part of an artist's own training is often a deliberate effort to alter his perception of objects, e.g., to see abstract shapes in natural objects. When an artist looks at another's work, he may be sensitive to that other

artist's unique way of seeing objects and he may use the other artist's perception to alter his own. Two visual art respondents noted this kind of long-lasting effect.

> (15) As a professional artist my tastes have been radically formed by aesthetic experience and I have looked for comparable visual situations in life. (A train station like a surrealist painting, a woman's face like a renaissance portrait.) (Respondent 203)

> (15) I have thought about the colors in the painting from time to time since and have sought for them in the trees outside. I spoke with myself about the painting a few times. (Respondent 242)

Music versus Visual Art Phenomenology

It was more difficult to find visual art respondents than to find music respondents for this study. Several persons, including some non-performing but professional aesthetes, expressed the belief that visual art experiences are seldom of the same intensity as music experiences. This may be half true if one accepts the definition of intensity as the amount of emotional and sensory phenomena in an experience. There were significantly more sensations in music reports, $t = 1.96$, $p = .05$, although there was no difference in reported emotional responses. The other common yardstick of intensity is the degree to which the experience is "total." If self-transformations are taken as an indicator of this, then visual art experiences are more

commonly intense than music experiences, t = 2.53, p = .01.

An additional piece of evidence relevant to judging the ecstatic potential of the medium is the reported frequency of peak experiences in response to music or visual art. If visual art stimuli are intrinsically less evocative, they should less frequently provoke peak experiences. That was not the case in this study. There was no difference in the frequency of music and visual art experiences.

Visual art respondents were more difficult to find probably because there are fewer people involved in the medium, not because visual art itself is less stimulating. Behind this lies the difference in the availability of appropriate music and visual art stimuli. The mass reproduction of music is more technologically perfect than the mass reproduction of visual art. With equal exposure, as was approximated in this study, music and visual art stimuli prove equally capable of generating peak experiences.

Still, there are limited differences in the types of experiences generated by each medium. At the level of specific phenomena, music evoked more motor responses and somewhat more sensations; music also elicited a greater variability in the number of sensations. Logically enough,

music was especially related to motor-sensory ecstasies. More than a third (35%) of music experiences had their highest factor loadings on motor-sensory ecstasies. Motor responses are so commonly accepted as effects of music that one nearly forgets there is no adequate explanation for how sound waves can cause the limbs to move.

Sensations are another matter. Many music devotees and theorists insist that the proper musical response is intellectual. Purely on the basis of numbers, it is; the attentional and cognitive category had the highest average number of responses of all the phenomena in music experiences. But a very close second, nearly an equal component, was sensations. Sensations were even more common than motor responses to music. Professional musicians as well as untutored listeners acknowledged the major role played by physical reactions in their experiences. Why sounds should evoke the number and range of sensations found in music accounts is no more obvious than why music should cause the limbs to move. But it is obvious that sensations are an ordinary part of intense music experiences, and they should be accepted as legitimate components of musical responses.

The number of physical and quasi-physical sensations reported is not only greater but also more variable in music

experiences compared to visual art experiences. One possible explanation for this greater variability is the widespread anathema against physical reactions when listening to music. People who have been indoctrinated into musical aesthetics have been instructed by such early giants as Hanslick (1891) that non-intellectual responses are undesirable and by such contemporary giants as Langer (1953) that non-intellectual responses are secondary or coincidental to the appreciation of form. Formalism dominates musical aesthetics. Many trained listeners may suppress sensory reactions. But in recent years some musicians have sought to sharpen their senses while listening to music by using drugs, and when they have the physical qualities of individual sounds have become as stimulating as their composition. With the increasing appreciation of the physical features of music, there has been increasing acceptance of the listeners' physical responses. This might help account for the inconsistency of some music listeners having very little sensation responses while others have so much. Visual art respondents are more homogenized in their sensation responses.

Visual art phenomena displayed a greater number of transformations and somewhat more motivational and object perception responses. Renewal ecstasies were more associated with visual art stimuli. Again, it is difficult to point to

anything in the stimulus which might account for this relationship. Furthermore, in the case of visual art no particular aesthetic beliefs come to mind to provoke an explanation in terms of learned, socially reinforced responses. One of these phenomena, however, can be accounted for by a personality variable. Compared to music respondents, visual art respondents described themselves on the self-rating scale as more discriminating in object perception. This adequately accounts for the greater amount of object perception in visual art reports. Visual artists are specifically trained to perceive objects precisely, and, as already remarked, they also carry perceptual refinements back from art to the rest of the world. Keen perception of objects sharpens perception of art, and keen perception of art sharpens perception of objects.

Cognitive and motivational responses were more variable in the visual art reports. The variability of cognitive responses in visual art may be explained in the same manner as the variability of sensations in music experiences. The aesthetic beliefs of the visual art elite are as anti-intellectual as the music elite's biases are anti-sensory. Training in visual art appreciation usually contains repeated admonitions to avoid intellectualizing. Suppression of cognitive responses by persons trained in

visual art appreciation is evident in many peak experience accounts and commentaries. Yet cognitive and attentional responses are the largest category of phenomena in visual art reports, just as sensations are nearly so in music reports. To continue the analogy, now in mirror image, composition has come forward in visual art and specific objects receded as photography has cast down the ideal of object representation. Abstract art is engendering more abstract responses. Traditional canons of aesthetics in music and visual art were not wrong; but they are wrong now. Values march behind in the dust of happenings. The phenomenology disclosed in this study shows little regard for old canons of appreciation but tells what future values are being molded by present experience. Music is becoming more sensory and visual art more intellectual.

Personality Variables

Laski had found in her small sample of interviewees that people in intellectual professions had more intellectual ecstasies. From that starting point, hypotheses were formulated for this study, stating that peak experience phenomena would be positive reflections of such personality characteristics as intellectual skills, emotionality, sensation seeking, etc. Self-rating scales were developed

to measure personality traits corresponding to peak experience content analysis categories. These self-rating scales all produced scores which had adequate variances and were free of approval motive contamination. Still, there was no direct relationship between preferred modes of ordinary functioning and peak experience functioning in the data of this study.

The basic concept of a peak experience enunciated in designing this study was that peak experiences are an unusual mode of functioning. If the unusualness consisted uniformly of either a dramatic increase or decrease in people's favored everyday modes of functioning, then positive or negative correlations between the self-rating scales and the peak experience phenomena would have appeared. When such correlations did not appear, the possibility that some individuals might experience dramatic increases and others decreases, which would not show up in a correlation or means test, was checked. Higher scorers on each self-rating scale were segregated. Their scores on the corresponding peak experience phenomenon category were compared to the scores of all other respondents by comparing the two distributions to see if persons high on the personality trait were either high or low on the phenomenological score. Then the same was done for the low

scorers on the personality trait. No disproportionate distributions were found. Persons who scored high or low in self-ratings on emotionality, for example, did not have especially high or low scores for emotional phenomena in the peak experience reports. If peak experiences are unusual modes of functioning, the unusualness is not just a matter of quantitative increase or decrease of favored everyday modes of functioning. A qualitatively different kind of functioning is involved.

The unhypothesized correlations which did appear among the self-rating scale scores and the peak experience phenomena lack conceptual links. They were, in fact, just the number of spurious correlations one would expect at the .05 significance level, namely, 7 out of 136. In the absence of relevant theories to place them in a wider context and of any other data to corroborate the relationships they imply, the cautious researcher can only say that these findings require further investigation.

More understandable were the differences found between music and visual art respondents themselves. The visual art respondents' higher self-ratings on emotionality coincides with a major emphasis in the education of artists, as already mentioned. The training of visual artists would also lead

one to expect them to score higher on acuity in object perception, although these self-rating scale items deliberately focused on auditory acuity as well as visual acuity. The visual art respondents did have a higher mean on the object perception subscale, as can be seen in Table 3, although it was significant only at the level of $p = .07$.

Visual artists scored higher on existentiality, too. This self-actualization measure highlights flexibility in vales and behavior. One of the most striking recurrent themes in the post-experimental discussions with visual artists was their extraordinary sense of freedom when producing art and their conviction that they were entitled to the same freedom in their other affairs. Their attitude was couched in phrases like these: "When you begin, the canvas is blank and you can do anything you want;" "the artist can paint things the way he wants, he is not bound by the way they are;" "if you don't like something, you are always free to change it;" "an artist creates his own world." If these lines suggest that artists should also score lower than the music respondents on the approval motive measure, then one might note that the means in Table 3 are different as expected but the level of significance is only $p = .07$.

So much freedom is not experienced by musical performers.

The sounds they produce are bounded by musical scores, and they are often concerned about what the composer intended. The experience of composers may be quite different, perhaps more like the experience of visual artists. The music respondents in this study were not composers.

The relationship of peak experiences to self-actualization was affirmed over and over again by Maslow. How he specified the relationship changed in time, however. In earlier writings he proposed that the frequency of peak experiences is positively related to self-actualization. He conceptualized the peak experience as an acute identity experience with perduring effects. Evidence to support this conceptualization was found in this study. The frequency of peak experiences was positively related to differentiated self-perception. Frequent peakers do think of themselves as more complex and more unique persons. Further support came from the direct statements by 21 respondents that permanent "total" changes in self resulted from their peak experiences.

Later Maslow proposed that not the mere frequency but the content of peak experiences might be crucial to self-actualization. In particular, following Laski, he wrote that peak experiences might be self-actualizing only if they

had cognitive content. Evidence was found in this study to support this too. The only type of ecstasy with cognitive content in this study was renewal ecstasy. Renewal ecstasy was also the only type with a significant positive relationship to self-actualization as measured by the existentiality scale.

A hypothesis added in this study was that self-actualization might be related to the diversity of triggers with peak experience potency for the individual. This was also confirmed. The greater the range of stimuli provoking peak experiences for an individual, the higher was his score on the existentiality scale. This avenue converges with the preceding two on the conclusion that peak experiences are indeed positively related to self-actualization.

Conclusion

This study tested a simple model of peak experiences, a model which predicated that they are but fluctuations, up or down, of preferred everyday modes of functioning, such as, cognitive activity, motor activity, sensation seeking. But that appears not to be the case. What the study found was that there are different kinds of peak experiences, at least in response to aesthetic stimuli.

Two types of peak experiences, renewal ecstasies and withdrawal ecstasies, are related to general traits, namely, self-actualization and perception of self as complex and unique, respectively. And two types of experience, renewal ecstasies and motor-sensory ecstasies, are related to aesthetic media, namely, visual art and music, respectively. These findings are complex insofar as they distinguish different kinds of peak experiences. But they are simple insofar as they imply, within the range of the variables in this study, that peak experiences are quite free from the influences of a number of specific personality traits.

People judge experiences to be extremely intense when unusual sensations or unusual levels of emotion are involved or else when the experience is "total." A "total"

experience seems to be one in which attention is fully absorbed by a specific stimulus. In a general way, this finding parallels Maslow's distinction between two types of peak experiences, sensory or emotional bursts versus experiences with cognitive content. His devaluation of merely sensory or emotional bursts is likewise paralleled, in a general way, by the finding that motor-sensory and fusion-emotional ecstasies are not related to self-actualization.

However, people attribute value and permanent effects to all kinds of peak experiences, even if these effects were not reflected in the more standardized measures used in this study. Traditionally, the fusion phenomenon has been greatly valued, although it found no correlates in this study. Perhaps the explanation for the value attributed to it and for its lack of correlates in this study is its rarity. Only motivational responses were less frequent than loss of self in these data.

The anatomy of aesthetic peak experiences became quite visible. Although the preponderance of cognitive responses at the beginning of the experience is commonly recognized, the findings that fusion, when it occurs, also starts early in the experience and that motor responses dominate the

climax are new. So is the finding that variations in the phenomenology are preponderant in the afterglow of the post-climactic stage.

All the effects attributed to peak experiences were positive, be they short-term mood elevations, recurrent motivating retreats into the peak experience memory, or such permanent effects as the more optimistic view of life and the world in general. The myths, or overbeliefs, generated by aesthetic experiences differ markedly from those generated by religious ecstasies. The religious ecstatic is likely to have a vision of a future utopia replacing present reality. The aesthetic ecstatic believes the world is already better or more beautiful than he had thought before.

Aesthetics is a branch of philosophy which has remained more immune from empiricism than other branches like epistemology or ethics. If Maslow's suggestion that aesthetics be rooted empirically in the study of peak experiences were to be acted upon, the data of this study would require radical changes in aesthetic norms and models of aesthetic experience. This topic is too much to be pursued here, but one can see that norms would have to be liberalized and theories would have to allow for a variety

of legitimate models of aesthetic experience. In return for giving up simpler norms and theories, the aesthetic establishment in society, and in mini-societies like educational institutions, could win more support in light of the evidence for the enduring and enhancing effects of aesthetic experiences, including those which violate present norms and models.

Not all the varied implications which psychologists, musicians, visual artists, critics, teachers, curators, or simple appreciators might see latent in the data of this study have been drawn into the open. Caught between the discontent of following all possible clues without ever coming to a conclusion or, on the other hand, coming to a conclusion without having fully investigated very possible clue, I chose the later. Like a dense flower garden, more seeds are produced here than can blossom now. Some will bloom in another season, and perhaps others will grow in someone else's garden.

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Meditation. Television presentation of WNET, Channel 13, New York, 1976.

APPENDIX A: THE QUESTIONNAIRE

The questionnaire existed in two forms, one for music and one for visual art. These two forms were identical except that such words as "music" and "recordings" in one were replaced by "visual art" and "visual art works" in the other. Hence, only the music form is presented here.

In this appendix numbers appear in parentheses after the items in the self-rating scale. These were not in the questionnaire during the study. They are put in this appendix to identify the subscales. The first item, concerning physical health, stood alone. As for the other items, three items belonged to each of the following seven subscales: (1) object perception, (2) self perception, (3) sensation seeking, (4) emotionality, (5) cognitive activity, (6) motor activity, and (7) sociability.

Immediately after the self-rating scale in the study came the Existentiality scale of the Personal Orientation Inventory (Shostrom, 1966) and then Strahan and Gerbasi's (1972) short from of the Marlow-Crowne approval motive scale. These are not reporduced in this appendix.

What follows is the questionnaire itself, although more ample space for responses were left in the original.

THE EXPERIENCE OF BEAUTY

This is a study of the experience of beauty. Practically everyone seems to have an experience of great beauty at some time or other. This study will be an opportunity for you to think through your own experiences of beauty.

In thinking through your experiences of beauty, try to re-capture them as completely as possible. Do not blot out any aspects of the experience. Details are important too. No matter how unusual parts of the experience may seem to you, the same sorts of things have probably occurred to some other people in their experiences of beauty. Being completely open to all aspects of the experience and sharing it are ways to help it happen more often.

A stamped and addressed envelope is enclosed. You may use it to return this questionnaire.

You need <u>not</u> give your name on this questionnaire. But please do give the following information.

Today's date: _____

Your age: _____

Your occupation: _____

Highest level of formal education that you have completed (grade or college year): _____

Your sex: _____

About how many times have you attended concerts in your lifetime? _____

How many courses in music have you taken on the high school level or higher? _____

About how many books on music have you read in your lifetime? _____

About how many recordings of music (records or tapes) do you now have in your home? _____

Do you play a musical instrument? _____

If yes, how well? (Check one)

_____ not well

_____ fairly well

_____ very well

_____ professionally

INTENSE JOYOUS EXPERIENCE

1. Has listening to music ever given you an extremely intense joyous experience, an experience far more intense than the usual joy of listening to music?

_____ No, I have never had an extremely intense joyous experience in listening to music

_____ Yes, I have had an extremely intense joyous experience in listening to music at least once.

2. Have you sometimes had joyous experiences of music which you would not describe as extremely intense but which were moderately intense joyous experiences of music?

_____ No, only extremely intense joyous experiences or none at all.

_____ Yes, I have had moderately intense joyous experiences of music.

Try to recall a particular intense joyous experience you have had in listening to music. If you have had an extremely intense joyous experience of music, try to recall such an extremely intense experience. Otherwise, try to recall a moderately intense joyous experience of music.

The experience you choose to recall may be your last such experience or may be an earlier one that left a vivid impression. Sometimes people have difficulty remembering the details of an experience, but try to recall as much as you can. Use the questions below as a guide in recalling the experience and describe it as well as you can.

3. Do you have a moderately intense or an extremely intense experience to recall?

_____ Moderately intense

_____ Extremely intense

4. When did the experience occur? (approximate date)_____

5. What time of day was it? _____

6. Where were you when the experience occurred? (For example, at home) _____

7. Do you recall the music or the kind of music that triggered the experience? Please give a short description of the music in the space below.

8. What was your day like before the experience occurred? What had you been doing, thinking, feeling that day?

9. Did the experience occur instantly at full strength or were you aware of it beginning and then developing to a high point?

_____ Instantly at full strength. If so, please skip to question 12.

_____ It developed to a high point. If so, please continue below.

10. How did the experience begin? Try to re-live the experience in your imagination now. Describe any feelings, thoughts, physical sensations, bodily movements, impressions, or emotions you experienced at the beginning. (Continue on the back of this page, if necessary.)

11. How did the experience develop? What happened as you got more into it? (Continue on the back of this page, if necessary.)

12. What did you experience at the most intense point? Try to re-live the experience in your imagination now. Describe any feelings, thoughts, physical sensations, bodily movements, impressions, or emotions you experienced at the most intense point. (Continue on the back of this page, if necessary.)

13. After the most intense point was passed, what did you experience then? Describe the ending of the experience as well as you can. (Continue on the back of this page, if necessary.)

14. What were you like immediately after the experience was over? What immediate effects did the experience have on you? (Continue on the back of this page, if necessary.)

15. Did the experience have any longer lasting effects on you? Please describe any effects that remained with you for a longer while? (Continue on the back of this page, if necessary.)

16. There are some long boxes in the left-hand margin of your description of your experience, starting at question 10. Please turn the page sideways and write in these boxes approximately how long each part of the experience lasted. For example, in the last box (next to question 15) write in how long those effects of the experience lasted.

17. How often do you have intense joyous experiences in listening to music? (Please answer in terms of weeks, months, or years.)

    I have moderately intense experiences about once every _____

    I have extremely intense experiences about once every _____

18. If you have had both moderately intense and extremely intense experiences, what is present in the extremely intense experience that is absent in the moderately intense experience? (Continue on the back of this page, if necessary.)

19. If you have had both moderately intense and extremely intense experiences, is anything present in the moderately intense experience that is absent in the extremely intense experience? (Continue on the back of this page, if necessary.)

20. Are there any special circumstances or conditions which promote intense joyous experiences of music? Are there circumstances or conditions which hinder intense joyous experiences of music? (Continue on the back of this page, if necessary.)

21. Has your previous experience with a particular piece of music affected your reactions to it? (Please check whatever statements are true of you; you may check more than one statement.)

_____ I have had intense joyous experience when listening to a piece of music for the first time, a piece I never heard before.

_____ I have had intense joyous experience when listening to a piece of music which I had heard before but not reacted to in the same way.

_____ The same piece of music has given me intense joyous experiences on more than one occasion.

22. When you hear a particular piece of music which has given you an intense joyous experience on a previous occasion, do you expect it to give you the same experience again?

In the case of a moderately intense experience (yes or no): _____

In the case of an extremely intense experience (yes or no): _____

23. After having an intense joyous experience in listening to a piece of music, have you been prompted by the experience to seek such experiences again? (Please check whatever answers are true for you; you may check more than one.)

_____ No, having such an experience has not prompted me to seek another such experience.

_____ Yes, I have tried to re-capture the experience by listening to the very same piece of music again on another occasion.

_____ Yes, I have tried to re-capture the experience by listening to other pieces of music.

_____ Yes, I have tried to re-capture the experience by seeking other objects of beauty or other situations which might give such an experience.

24. Do you make it a particular point to go to concerts or play recordings of particular pieces of music which have given you intense joyous experiences on previous occasions?

_____ Yes, I do go to concerts or play recordings especially to hear a piece of music which has given me an intense joyous experience on a previous occasion.

_____ No, I do not particularly seek out the very same music again.

OTHER KINDS OF INTENSE JOYOUS EXPERIENCES

Do you have intense joyous experiences in response to other things? (For example, intense joyous experiences in response to nature, poetry, sensory experience, new ideas, dance, people, sports, architecture, etc.)

_____ No, I have no other kinds of intense joyous experiences.

_____ Yes, I have intense joyous experiences in response to other things, such as those mentioned above.

Please use the spaces below to tell what other things are causes of intense joyous experiences for you, whether they be mentioned above or not.

Also, please indicate if these experiences tend to be moderately or extremely intense and how often you have these experiences.

CAUSE OF THE EXPERIENCE	INTENSITY AND FREQUENCY
1.	Extremely intense. Once every _____ Moderately intense. Once every _____

CAUSE OF THE EXPERIENCE	INTENSITY AND FREQUENCY
2.	Extremely intense. Once every _____ Moderately intense. Once every _____
3.	Extremely intense. Once every _____ Moderately intense. Once every _____
4.	Extremely intense. Once every _____ Moderately intense. Once every _____
5.	Extremely intense. Once every _____ Moderately intense. Once every _____
6.	Extremely intense. Once every _____ Moderately intense. Once every _____

We are also interested in the personalities of people who have intense experiences of beauty. The following items are intended to give us some idea of yourself.

For the following statements, tell how well each statement describes you by circling the number which represents the best answer for you. The meanings of the numbers are as follows:

1 = Rarely or never true of me

2 = Sometimes true of me

3 = Frequently true of me

4 = Always or almost always true of me

Rarely true			Always true	
1	2	3	4	I am physically healthy
1	2	3	4	I notice right away when people wear new clothes or change their hair style. (1)
1	2	3	4	I change my opinions and attitudes easily. (2)
1	2	3	4	I have strong feelings. (4)
1	2	3	4	I prefer exotic foods to plain cooking. (3)
1	2	3	4	I am a complex person difficult to describe in a few words. (2)

1	2	3	4	I like parties. (7)
1	2	3	4	I have a creative, productive imagination. (5)
1	2	3	4	I enjoy athletic activity. (6)
1	2	3	4	I observe details more than other people do. (1)
1	2	3	4	I am an open, friendly person. (7)
1	2	3	4	I can sit down for a long time without getting up. (6)
1	2	3	4	I let my feelings take over. (4)
1	2	3	4	I actively seek unusual sights, sounds, feelings. (3)
1	2	3	4	I have a large vocabulary. (5)
1	2	3	4	I like having other people around me when I am working. (7)
1	2	3	4	I walk fast. (6)
1	2	3	4	I express my feelings openly without hesitation. (4)
1	2	3	4	I like to use colognes or perfumes with different smells. (3)
1	2	3	4	I am an exceptional person. (2)
1	2	3	4	I pick out slight variations in the way individuals talk and pronounce words. (1)
1	2	3	4	I am good at solving puzzles and problems. (5)

Below are pairs of opposite statements. Read each pair of statements and decide which one is more true of you. Neither statement may be one hundred percent true of you, but choose the one that is more true and draw a circle around the letter in front of it.

[The Existentiality scale came at this point.]

Last of all, please answer the following items "True" (T) or "False" (F).

[The approval motive scale came at this point.]

* * * * *

As you realize, no such questionnaire can adequately record the experience of beauty. Some aspects of the experience are bound to be slighted by a questionnaire. For this reason, and also because some of your answers might be particularly thought provoking, I would like to be able to follow up on your responses. If you would not mind being interviewed, either in person or just over the telephone, please call me at the number below, or else you can give your telephone number below and I will call you after I have had a chance to look over your responses.

I would like to follow up on this questionnaire. My telephone number is _____.

Please use the envelope which was enclosed to return this questionnaire. It is already stamped and addressed.

Thank you very much for your cooperation.

Robert Panzarella
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New York, New York 10036

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APPENDIX B: THE CONTENT ANALYSIS SCORING MANUAL

The content analysis scoring manual was constructed prior to collecting the data for this study. After the data had been collected and examined, it was found necessary to derive one new category from the miscellaneous responses. The new category was "Return to Normal," which meant descriptions of loss of the peak experience phenomena. These responses occurred after the most intense point of the experience. Some examples of Return to Normal are: the intensity of this quickly levels off, the effect tapered off, those feelings did not persist--they dissipated, my hair resettled and goose flesh normalized, mellowing out, I dropped back down to earth, I returned to relatively normal, hard to get back to reality.

What follows is the scoring manual as it was used by the judges in this study. The six protocols at the end of the manual were used for practice in training the judges. The numbers in parentheses after each phrase in these sample protocols are the scoring manual content category numbers. In training, the judges first scored copies of these sample protocols without this answer key, then compared their judgments with this answer key. Considerable discussion of the categories and sample protocols was part of the judges training.

PEAK EXPERIENCES OF MUSIC AND VISUAL ART
CONTENT ANALYSIS SCORING MANUAL

There are fourteen categories for the content analysis of descriptions of intense experiences of music and visual art in this study. The fourteen categories are:

1. Object Descriptions
2. Self Descriptions
3. Attentional Responses
4. Sensations
5. Motor Responses
6. Emotions
7. Aesthetic Judgments
8. Cognitive Responses (other than Aesthetic Judgments)
9. Social Responses
10. Motivational Responses
11. Commentaries on and Analyses of the Experience
12. Losses:
    - A. Loss of Attention to or Perception of the Art Object
    - B. Loss of Attention to or Perception of Reality (other than the Art Object), the Environment, Time, and Space
    - C. Loss of Attention to or Perception of Other People

D. Loss of Self

E. Loss of Sensations

F. Loss of Motor Responses

G. Loss of Emotions

H. Loss of Aesthetic Judgments

I. Loss of Cognitive Responses (other than Aesthetic Judgments)

J. Loss of Social Responses

K. Loss of Motivation

13. Transformations:

A. Transformed Perception of the Art Object

B. Transformed Perception of Reality (other than the Art Object), the Environment, Time, and Space

C. Transformed Perception of Other People

D. Transformations of Self

E. Transformations of Sensations

F. Transformations of Aesthetic Judgments or Values

G. Transformations of Cognitive Processes (other than Aesthetic Judgments or Values)

H. Transformations of Social Responses

I. Transformations of Motivations

14. Other Responses

The unit of analysis is the smallest meaningful unit.

The subjects' descriptions of peak experiences have been transcribed and divided into meaningful units by the investigator prior to submitting them to the judges for content analysis scoring. Data were transcribed with minimal editing, so that some ambiguities and grammatical errors are preserved in the transcribed data.

The categories for the content analysis are expected to be adequate to contain the majority of responses to music and visual art. For other types of peak experiences it would probably be desirable to establish other categories of responses. For example, if the focus were on religious experiences, it might be desirable to set up a category for moral responses. Even experiences of music and visual art, however, will overflow the thirteen specific categories established for this study. Thus, the general category of Other Responses has been added to the list.

The categories for the content analysis are described below. After the descriptions of the categories, there will be examples of six scored protocols, three of music experiences and three of visual art experiences.

1. Object Descriptions

Object Descriptions include words, phrases, clauses, or sentences used to describe physical or psychological qualities of the stimulus which triggered the experience. For example: loud, bright, happy, colorful, massive, old, classical, modern, orange, paintings by El Greco, sad, recorded music. (When the description involves an aesthetic judgment, or a transformation or animation of the stimulus, category 7 or 13A should be used.)

2. Self Descriptions

Self Descriptions are statements telling something about objective qualities of the person having the experience, such as, his age, occupation, religion, usual physical appearance, etc. (Statements describing loss of self or transformations of self should be scored under category 12D or 13D.)

3. Attentional Responses

Attentional Responses are statements indicating that a person was scanning or focusing. Examples are: I paid attention only to, I began studying the details of, I listened

intently, I examined each aspect, I was captivated. (Loss of attention or transformations in the perception of reality, the environment, time, space, or other people should be scored under category 12A, 12B, 12C, 13A, 13B, or 13C.)

4. Sensations

Sensations include physical sensations, propriosensations, quasi-physical sensations. For example: statements of arousal, excitement, high, fatigued, warmth, tingling, chills, a certain pain, tension, cold, being filled, feelings of physical expansion, inner pressure, physical pressure bearing down on one, dazzled, dizzy, weak, filled with strength, about to burst, calm, rest, stillness, exhausted, an aching, floating, flying, weightlessness, heaviness. (Loss of sensations and transformations of physical senses should be scored under categories 12E and 13E.)

5. Motor Responses

Motor Responses include all overt actions and internal changes in bodily rhythms in response to the aesthetic stimulus. For example: trembling, jumping, opening mouth, tapping, shaking, changes in heart beat, changes in breathing,

changes in pulse, sitting down (after standing up), standing up (after sitting down), running, gesturing, biting lips, perspiring, clenching fists, curling toes, rocking, swaying, etc. (Loss of motor responses is to be scored under category 12F).

6. Emotions

Emotions include any references to affects attributed to oneself, whether they be positive or negative, emotions or moods. For example: joy, sadness, happiness, sorrow, fear, anxiety, bliss, peace, pleasure, love, elation, delight, disappointment, anger, terror, ecstasy, rapture, etc. Note that although ecstasy or rapture is a complex whole phenomenon, it is classified as an emotional response for the purposes of this study. (Reported loss of emotional response should be scored under category 12G. Emotions attributed to the stimulus are scored under category 1.)

7. Aesthetic Judgments

Aesthetic Judgments are scored separate from other types of cognitive responses. Aesthetic Judgments are qualitative statements about the aesthetic stimulus which triggered the experience. For example: beautiful,

perfectly executed, welded into perfect harmony, magnificent, exceptional work, better than any other.

8. Cognitve Responses (Other than Aesthetic Judgments)

Cognitve Responses include associations, memories, analyses, fantasies, expectations, classifications, or appreciations occurring as part of the experience itself. For example: I imagined, I seemed to hear, I admired, I examined, I was amazed, surprised, I was awed, I thought of, I anticipated, I expected, I can remember, I compared, I analyzed, I valued, I had the highest regard for, I was prepared, the memory remains, I understood. (Post facto analyses, comparisons, associations, etc. are to be scored under category 11. Category 8 includes only responses made during the actual experience.)

9. Social Responses

Social Responses consist of attempts to make contact with other people. They include all reports of psychological or physical movement towards or desire for contact with or feelings of identification with other people, whether they be concrete individuals or mankind in general, whether they be people present at the time of the experience or not. Social

Responses also include feelings of identification with the artist or musician or people depicted in the art or music. For example: I wanted to tell someone, I wanted everyone to know how great it was, I wanted to share it with someone, I wanted to be with someone. (Loss of social responses and transformations of social responses should be scored under category 12C or 12J or 13C or 13H.)

10. Motivational Responses

Motivational Responses consist of decisions or desires to do something aimed at holding, intensifying or repeating the experience being described, seeking other similar experiences, or being more creative or productive oneself in some way. For instance: I tried to hold onto the experience, I wanted to intensify it, I tried to re-capture it, I listened to the same music again, I went out and bought the record, I return to that art gallery often, I felt I wanted to produce something myself, I worked more intensely on my own art for weeks after that, I wished I could do something so beautiful, I promised myself that I would.... (Loss or transformation of motivations should be scored under categories 12K and 13I.)

11. Commentaries on and Analyses of the Experience

Commentaries and analyses of the experience include all statements about the experience other than actual responses that occurred during the experience. This category includes general statements about aesthetic experience, comments on one's own experience, attempts to analyze the experience (other than attempts made during the actual experience itself), comparisons to other experiences (other than comparisons which were made during the experience itself), and all post facto observations or comparisons. For example: it was different from other experiences, it was like certain other experiences, I would say it was like orgasm, I think this experience occurred because, not all my art experiences have this feature but, the experience was really beyond words, these types of experiences tend to, music always is experienced. Summary statements of the experience, which are intended to recapitulate previous parts of the description, will also be scored as comments. These are statements such as: it is as I described above, there was no difference as the experience progressed, there was no one most intense point in the experience, the experience occurred several times in rapid succession until the music ended, the feelings were the same as the ones I described already.

12. Losses

Losses are statements in which a subject specifically notes that something normally present or previously present was no longer present in the experience. Losses should be categorized according to the specific subcategories noted below.

A. Loss of attention to or perception of the art object. The subject ceases to be aware of the music or visual art which triggered the experience. For example: I no longer heard the music (although it continued), I was no longer aware of the painting (although it was still present physically).

B. Loss of attention to or perception of reality (other than the art object, which is scored under category 12A), the environment, time, and space. For example: time seemed to stop, I forgot where I was, I was oblivious of everything, I no longer noticed, it was unreal, I lost contact with reality.

C. Loss of attention to or perception of other people. For example: I no longer noticed the people around me, I was unaware of the rest of the audience, I was no longer distracted by the other people, it was as if I were alone although others were present.

D. Loss of self. For example: I lost all awareness of myself, I became part of the music, I fused into the painting, I was one with the painting, it absorbed me into itself, I lost myself, I forgot myself, I forgot who I was, I left my usual self behind me.

E. Loss of sensations. For example: I could feel nothing, I lost all feeling, I was empty, drained, my senses cesased to operate, a sensation of nothingness, a void, an empty space in me, let down.

F. Loss of motor responses. For example: I was motionless, I stood still, sat still, was transfixed, did not want to move, was paralyzed, stopped breathing, my heart stopped beating, did not applaud, remained standing there a long time unable to move.

G. Loss of emotions. For example: drained of all feeling, emotionless, apathetic, indifferent, no longer felt any emotion, could feel nothing else but, my feelings ebbed away, the feeling subsided, I forgot all my cares.

H. Loss of aesthetic judgments. For example: I was no longer critical, I ceased thinking of it as a work of art, I stopped looking at it from a technical viewpoint, I suspended my critical judgment.

I. Loss of cognitive responses (other than aesthetic judgments). For example: I forgot everything, I could no longer attend to the music, I lost control of myself, my mind went blank.

J. Loss of social responses. For example: I forgot about everyone else in the room, I wanted to be alone, I did not want to talk to anyone, I wished the others were not there, I got away from everyone else.

K. Loss of motivation. For example: I did not want to do anything, I lost all interest, I felt I could never do anything so beautiful, I gave up trying to, I no longer wanted to.

13. Transformations

Transformations are qualitative changes in a person's previous or normal responses. Transformations should be categorized according to the specific subcategories noted below.

A. Transformed perception of the art object. This category includes reported changes in the perception of the art object which do not reflect physical changes in the art object itself. It also includes animation of the art or music. For example: it

seemed to be alive, it came alive, it reached out and grabbed me, it seemed unreal, it had a reality of its own quite unlike anything else in the world, it blended into the universe, it pulsated, the colors seemed to undergo changes, ever since then this music has been special for me, as a result I am always moved when I hear this piece.

B. Transformed perception of reality (other than the art object), the environment, time, and space. For example: time slowed down, everything looked different, the world seemed new, it felt like an eternity, time stood still, I saw everything in a new way.

C. Transformed perception of other people. For example: everyone looked happier, people looked more beautiful, people looked somehow different, I looked at people less critically, I realized for the first time how talented he was.

D. Transformations of self. For example: I was renewed, I was free, I had a new awareness of myself, it renewed me, it was a rebirth, I was revitalized, fulfilled, satisfied, I felt privileged, graced, in luck, gratified, grateful, I discovered new depths within myself, I was no longer the same person, I was changed, it was as if I had just been created, I had a new sense of my own powers.

E. Transformations of sensations. This category denotes not simply having more sensations but rather having new types of sensations, altered sensations, synesthesia, seeing or hearing more acutely, sharpened sensations. For example: I had feelings I never had before, I had strange feelings, I could taste the music, I could smell the painting, I could hear every detail more vividly than normally, my senses were set on edge.

F. Transformations of aesthetic judgments or values. For example: even ugly things seemed beautiful now, I set a new standard of beauty, I realized more than ever the importance of art, it was a performance by which I have come to judge all others.

G. Transformations of cognitive processes (other than aesthetic judgments or values). For example: I felt I had learned something valuable, I had a new kind of knowledge, I was more imaginative, I had richer fantasies, I was more open to other experiences, I had a new understanding, I was enlightened, it was illuminating.

H. Transformations of social responses. For example: I felt a great love for everyone, I felt a new relationship to others, I was more in touch with others, I wanted to hug everyone.

I. Transformations of motivations. For example: I had a new interest in, from then on I wanted only to, I determined to change.

14. Other Responses

Other Responses, by definition, cannot be specified in any detail except to say that they do not fit into any of the above categories. This category includes irrelevant or completely ambiguous responses. For example: I don't think I can answer this question, I don't know, I wish I could tell you more, I already answered this, same as above, I can't remember any more.

Examples of Scored Protocols

Subject 101:

The music was Ravel's "Bolero" which is classical structure.

10. I was familiar with the particular piece of music so there (8)
were many feelings of anxiety to hear the crescendos (6),
great feelings of joy (6)
and laughter (5)
as the piece repeated itself to the final point (1).

11. I applauded (5)
    each time the violins interjected (1)
    at their fierce pace (1).
12. I was appreciative of the genius (8)
    that made me feel so beautiful (13D)
    and refreshed inside (13D).
13. Delighted (6)
    that I'd shared again in the experience of Ravel (9).
14. I wanted to talk about the feelings I'd felt with
    someone else (9)
    and I also felt my need to produce (10).
15. Most music has a complete effect on me (11),
    this particular experience with Ravel only adds to that
    positiveness (13A).

Subject 102:

San Sulpice scene of Massenet's Manon with Nicolai Gedda and Victoria de los Angeles.

10. As the work progressed (1)
    I was caught up in the performance of the two stars (3).
11. The vocal quality of the soprono's pleading for her
    lover to leave the monastery and return as her lover
    (1)
    led me to tears (5).
12. I felt buoyant (4),

yet happy (6)

to the point of tears (5).

13. Fulfillment (13D),

joy (6),

rapture (6),

satisfaction (13D).

14. Isn't this a redundancy of 13? (14)

15. I never hear the opera, alive or recorded, without recalling the experience (13A).

Subject 103:

Yes--it was improvised rock music played on an organ with many varied rhythmic changes and odd chord sequences.

10. The first impressions reached me through my ears (4)

and then went straight to the brain (4).

11. The melody line centers in my intellect (4)

and the beat travels through my body (4).

12. Extreme physical sensations--(4)

chills up my spine (4)

unable and unwilling to control my arms and legs (5)

which insist on dancing although I was sitting (5).

13. Gradually I came down (RETURN TO NORMAL)

to a pleasant high (4)

and this feeling ebbed and flowed (4)

with the intensity of the music (1).

14. I was calm (4)
and happy (6),
but ready for anything else that might have happened (13G).

15. Yes--I can still practically relive the experience by recalling the sights and feelings (8).

Subject 201:

I should qualify this visual experience as being related to the entire basilica (St. Peter's in Rome), which is a work of visual art though it isn't bound by a frame.

10. (Subject skipped from question 9 to question 12 because the experience occurred instantly at full strength.)

11.

12. As soon as I entered the main door and was inside, I walked several steps and just stood (5).
There was a definite raise in heart beat (5)
and altered breathing (5).
I'm sure my mouth was open although I don't remember (5).

13. My first impression was of size and light, incredible sense of light (4).
Despite the variety of marble (1),
there is a total unity (7),
which is near perfection (7).
Also the visual line is so clean, however, (7)

when one begins to look in detail, you have to be amazed at the scope and complexity of each design element (8).

But because the whole is so vast (1)

and unified (7)

you don't get the overbusy result of so much baroque interior (11).

God, I sound like a travel brochure (14).

Anyway, I remember a sustained sense of awe for about 20 minutes (8).

Then I began to get more diffused in focus (12A)

but retained a high (4)

as each new area presented itself (13A).

It's like being in an amusement park with one exciting thing to do after the other (11).

14. Of course, I was exhausted from looking (4).

But I had the sense that I had seen something that was executed to the point of perfection (13D).

15. It's difficult to divide the sociological implications of a place like St. Peter's from its purely esthetic considerations (11),

especially since I was raised a Catholic (2)

and it's the mother church with such powerful historic promptings (1).

Subject 202:

They were a series of Van Gogh paintings. One was of cypress trees, the others of flowering apple trees, etc. The craftsmanship in conjunction with the intense color and burning expressive power represented to me at the time an ideal in artistic realization.

10. The viewing of the paintings was an experience relevant to my personal search for expression (11).

I saw them not only as a spectator but also as an executioner (11).

I internalized the total reality of the painting (the initial inspiration as I conceived it, of course, its progression as the artist must have experienced it, and so on) (8).

The experience was an identification with the artist rather than a purely observational experience (9).

I did go through a stage in which I emulated Van Gogh in style and subject matter (2).

The handling of paint and color became so real to me (13A)

that merely looking did not satisfy my artistic experience (11).

I myself felt the need to relate to the media with similar intensity (10).

This happened immediately on seeing the first few works (11).

11. There was an accumulation of observations as the experience developed (8)
but other than that the experience didn't develop further (11).
It's intrinsic nature remained the same. Only particulars varied as I moved from one work to another (11).

12. There was no most intense point (11).
It built immediately to a maximum degree and remained so as I viewed the paintings (11).
Some works affected me less than others, but my enthusiasm did not fluctuate because it resulted from the totality of the experience, not so much from any given painting (11).

13. The memory lingered (8),
the excitement dropped slowly but never dissipated completely (RETURN TO NORMAL).
A perceptual change was effected (13B)
which, by the way, holds true for most experiences (11).

14. After the initial experience, the results were profound but not indescribably overwhelming (11).
I saw the artist in a more total light (13C).
I made valuable technical observations (8).
I felt the heightened impact of visual reality (13E).
Intense effects do not necessarily mean valuable effects (11).

The effects were intense in terms of meaningfulness, in terms of visual realizations, and permanance. They were not in terms of immediate and overwhelming impact. In short, this immediate impact wasn't much different from long lasting effects (11).

15. The longer lasting effects were the same as the immediate effects (11).

The only effect that did not last was the initial surprise (12I)

brought about by the beauty inherent in the original presence of the works (11),

but even that experience lingered indefinitely to some extent (8).

Subject 203:

In the nature of my work (professional artist) I have encountered innumerable works of this kind. To choose one would falsify my entire set of experiences. From this point on I will generalize about the nature of my many experiences which share certain common characteristics. To choose <u>one</u> after 35 years of such experiences would be to falsify its nature. Unfortunately, at this point it would be almost impossible for me to de-sophisticate my responses to a basic primitiveness--though I will try.

10. I am usually aware of setting myself up for an aesthetic experience (8)

by sharpening my perceptions (4)
and shutting off other external stimuli (4).
This is probably the pre-condition for the suspension of disbelief (11).

11. I am first aware of unexpected combinations of colors and shapes almost before I register the image (8).
I am aware of the painting as an object covered with a texture of colored shapes (1).

12. In the face of paintings by expressionists like Van Goth or El Greco (1)
there is an ache somewhere between the throat and the stomach (4)
akin to the sensation of sexual desire but different in that it requires nothing more than the looking (11).
There is a sense of timelessness, or rather of slowed down time (13B).

13. After the slowing down of time (13B)
(as well as a narrowing and focusing of the space around the work) (13A)
there is the pleasure (6)
of knowing that the vague personal intuitions that I am barely aware of can be made concrete and that there is a visual language for what can just barely be felt (8).

I also feel that if these artists can say the un-sayable, then I too can hope to do so (10).

14. There is a certain desolation (6)
when the minutes of intense communication come to an end (12A)
and usually because of aesthetic fatigue (11).
There is the promise to the self to return to this state of consciousness again (10).

15. As a professional artist (2)
my tastes have been radically formed by aesthetic experience (13F)
and I have looked for comparable visual situations in life. (A train station like a surrealist painting, a woman's face like a renaissance portrait.) (10)