INTENSIVE INSIGHT MEDITATION:
A PHENOMENOLOGICAL STUDY

Jack Kornfield
Barre, Massachusetts

INTRODUCTION

A study was undertaken to record and examine the range and patterns of experiences reported by students of insight meditation (vipassana, a traditional Theravadin Buddhist awareness practice) during five two-week and one three-month intensive training periods. This form of meditation has been well described in the literature (Goleman, 1975; Goldstein, 1976; Kornfield, 1977) and previously in this journal (Goleman, 1972; Deatherage, 1975; Walsh, 1977, 1978).

This examination was undertaken to supplement the paucity of phenomenological data available in current studies of meditation in the West. Basic phenomenological groundwork is essential to a fuller understanding of the meditative process and to the construction of valid research models. Although phenomenological descriptions of meditative practice do exist in traditional Eastern psychological literature (e.g., Sobhana, 1965; Buddhaghosa, 1976), these texts have focused almost entirely on very advanced levels of meditation practice. This current study attempts to supplement phenomenological data on the early stages of meditation practice and to familiarize Western psychologists with the range and patterns of experience commonly noted by beginning meditators. Due to ignorance regarding the frequency and variety of unusual experiences in early meditative practice, Western psychology has often erroneously given pathological interpretations to what are in fact common and normal meditation experiences (Group for the Advancement of Psychiatry, 1976).

Research for this paper was completed in 1976 as partial fulfillment of doctoral dissertation requirements for the Humanistic Psychology Institute, 325 Ninth Street, San Francisco, California.
This descriptive study hopes to provide a more useful context for understanding this data, and for interpreting meditation in an accurate way for Western psychological study and use.

**INSIGHT MEDITATION**

Briefly, insight meditation begins by concentrating attention on the sensation of the breath for several days until the mind becomes quieter and more easily and frequently focused on the breath. This concentration exercise is followed by an insight exercise which changes the focus of attention by directing meditators to notice whatever experience of the body or mind is most predominant in each moment. In this meditation, mindfulness, defined as a careful and nonjudgmental attention, is developed by observing the natural sequence of changing experience, whether breath, body sensation, sights, sounds, tastes, smells, thoughts, feelings, etc. The aim of the practice is to develop, through careful observation, an understanding of how the process of experience takes place. It employs the cultivation of mindfulness to foster a non-reactive awareness which allows a non-interfering appreciation of the entire range of life experience.

The retreat format emphasizes silent group practice. A typical daily schedule includes seven to nine sessions of sitting meditation for forty-five minutes to an hour; four or five periods of slow, mindful walking for thirty to forty minutes; and regularly scheduled periods for meals, rest and meditation instruction (Goldstein, 1976). In addition, students are instructed to develop a continuous and careful attention to each movement or action which takes place between fixed periods of group sitting and walking. Retreats usually take place in a silent monastic setting and all outside contact, as well as reading, writing, music and other such activities are prohibited. This leaves the student outwardly undistracted, providing a simplified environment for assisting in the task of self-observation.

Instruction is given in groups for one hour each evening and includes actual meditation directions, general lectures on the Buddhist framework of growth and psychology (such as talks on the relationship of meditation to morality and wisdom, or talks on the common difficulties in meditation and their causes), and inspirational topics (such as talks on love, patience, open-mindedness and so forth). In addition, each student has a fifteen-minute interview with a teacher every two days to discuss any questions or difficulties which may arise in regard to the meditation practice. In summary, the retreats are very intensive, involving twelve or more hours of sitting
or walking meditation daily, and allowing short periods for meals, instruction, bathing and sleep.

**STUDY METHOD**

Data for this study on student experience was collected through simple questionnaires and the student-teacher interviews held every two days. At the close of an interview, the teacher would record the student's description of his/her meditation experience. In addition, over one thousand questionnaires, which had been filled out by students on an average of every two or three days, were collected. The questionnaires asked three sets of questions:

1. How much are you sleeping? Has your food intake increased/decreased?
2. Have you noticed changes in clarity of perception, concentration, and frequency of moments of mindfulness?
3. What is predominant in the meditation now? What unusual experiences have you noted since the last interview?

All interview records and questionnaires collected were used in studying this process. Altogether over 110 two-week students and 63 three-month students are included in our data. These represent 52% of the total students in the two-week retreats, and all but five of the 68 students in the three-month retreat. They are evenly divided among the sexes, and contain students with a variety of past meditation background—from none to quite extensive—but including 50% new students among two-week subjects and 30% new students among three-month participants. Of the 63 three-month students who participated in the study, 28 submitted especially frequent and detailed questionnaires. The group with more complete questionnaires was particularly analyzed for frequency and patterns of experience in practice.

Because this study is primarily a phenomenological or descriptive exercise aimed at cataloguing and mapping the range and patterns of meditative experience, the statistical results will often appear in general terms such as most, few, many, not often, and so forth. This places the emphasis of the research directly and purposefully on the classes and patterns of the experiences studied without overly emphasizing the precise percentages of subjects reporting specific experiences. Modern statistical psychology may be uncomfortable with this approach, but it genuinely reflects our state of unknowing in this area and the necessity to establish patterns, hypotheses, and models upon which further statistical studies can be made.
As a compliment to the retreat groups, a control study involved students of the same age and background, who received identical talks and instructions but who practiced meditation only one or two hours per day in a Buddhist school and community setting rather than in an intensive silent retreat. Extensive follow-up questionnaires were sent to sixty students several months after their completion of the three-month retreat to collect data on how the students perceived themselves as being changed or unchanged by the retreat. Finally, this data was compared to descriptions of progress in meditation found in several traditional Buddhist texts.

Data Analysis

In analyzing the data, the first area of concern was to order the extensive descriptions of unusual experience. For simplicity, these were divided into basic categories according to sense modality. Within these categories of sense modality, the data was further subdivided by creating sub-categories based on the classes of experiences most often reported. This led to a total of 22 categories containing all the data collected on unusual experiences. These categories are as follows:

CATEGORIES OF UNUSUAL EXPERIENCES REPORTED

Somatic experiences
1. Spontaneous movement
2. Alterations in body image
3. "Energy" flow experiences
4. Other proprioceptive changes such as temperature, weight, etc.
5. Unusual breathing patterns
6. Unusual experiences during walking
7. Changes in perception of pain

Visual experiences
8. Eyes open
9. Eyes closed
10. Auditory experiences

Mental experiences
12. Strong emotions and mood swings
13. Rapture and bliss
14. Psychological insights
15. Equanimity
16. Insights into basic mental and physical life processes
17. Dream changes
18. Time changes
19. Concentration changes
20. Effortless awareness
21. "Out-of-the-body experiences"
22. Other general perception changes including creativity and psychic phenomena

To give some sense of the range and content of this data, we examined sample experiences reported by students in several of these categories. It must be remembered that in the meditation training these experiences are not encouraged, rewarded or described in advance. The instructions are simply to sit or walk and be carefully aware of the breath or whatever else happens in each new moment, without interfering with the natural flow of experience.

Sample Data

The first category of data, under the general class of "unusual somatic experiences," details reports of "spontaneous movement," which is the commonest class of unusual experience reported. Fifty-five percent of the student questionnaires from the three-month retreat reported at least one such experience. The list below quotes a random sample of these reports, described in the words of the subjects:

- I felt much twitching
- my arms rose involuntarily in a blessing
- involuntary jerks
- violent shaking, clearing of deep body tension
- much involuntary movement
- spontaneous Yoga stretching ... hand movements
- jerking, weird faces, drooling, pain
- much movement, arms dancing, head rolling, falling over
- violent shakes, loosening, tension release
- much automatic movement
- lots of shaking
- anus flapping like wings
- arms move by themselves, swung up to my face, then opened
- felt a force that was really strong pushing against left side
- body pulls to the left

Spontaneous alterations of body-image perception were also reported. Here are some examples from this category:

- I felt my body divided in half
- strong experience of having been switched into slow motion
- strong sensation in throat, neck
- feel torso expanding-T'm very tall and my arms seem to float to another spot
acute body sensations, feel heartbeat, tingling
loss of perception of hands
loss of body awareness
felt body heavily pulled in all directions
floating, not touching cushion
felt like I was floating, but I was really stone still
distinct sensation of being turned around 90 degrees, facing new direction
limbs and body huge and bulbous
body disappeared
face keeps getting the feeling it's all contorted and screwed up
head feels tilted
head detached itself
body grew huge, then tiny, tiny
felt I was leaving the body

visual perceptions, eyes open

Visual perceptions are another class of unusual experiences frequently reported. These occurred during periods of meditation with the eyes open, and also with the eyes closed. Such reports are often associated with simultaneous reports of strong concentration and rapture. Some examples of experiences with the eyes open include:

color changes in visual field
seeing becomes more acute
vision improved greatly
still objects moving
like seeing through special glasses, so clear
light flashes
saw a spider as big as my hand come out of the floor
LSD melting-like visions
colors brighter
seeing after-images whenever eyes move
see double for a bit
see space clearly
see air energy, vision rippy
see darkness when mind is depressed
all sights, mind luminous
see visual after-images
see candle-like glow emanating from my body
visual perception sharpened
perception of space sharpened
hallucinations while walking
able to perceive vibrations of air around me
sparkles of light while walking at night
colors more intense
double vision
perception of space heightened

Experiences with the eyes closed include:

- camera-like flashes of light
- vision of Buddha
- colored lights
- saw a spotlight shining at me
- cloudy then white
- blue, white lights
- see white light when concentrated
- light and whiteness
- flashes of light, green and white, very bright and short
- great brightness
- seeing images of body cells, organs
- see the Buddha
- vision of radiating cross
- see colors—orange, yellow
- visual snowfield
- great brightness
- see spots of light

In addition to experiences reported as "unusual," there is a normal flow of visual phenomena that is not reported as special experience. These phenomena are described frequently in interviews as visual thoughts, dream-like images, mental pictures—moving and still—and patterns of colors and visions, from simple subjects to complex visual mandalas. Also, it is commonly reported that certain visual themes appear regularly in meditators' minds, such as visions of Buddha or Christ or various religious imagery, or for some, visions of bodies and corpses and death. For others, spontaneous visions of violence or of lustful scenes and other vivid visual material is often reported as associated with strong emotional discharges.

If we look at the data in the category of "unusual mental perceptions," there is a wide range of reported experiences, some related to cognitive, others to affective, intuitive realms. Noting these experiences follows traditional Buddhist psychology, in that the mind is a sense organ with which we perceive mental sense objects. Data reported as "unusual mental perceptions" have therefore been grouped according to those classes of experience most frequently reported and those which seem important for understanding the meditative process.

The first category includes reports of strong emotions and emotional swings. Meditators commonly experienced intense visual perceptions, eyes closed.
feeling states and frequent dramatic changes of mood. While almost every meditator noticed strong emotions and some mood changes, 47% of the most complete student questionnaires reported especially dramatic mood swings. Typical experiences are as follows:

- heavy sadness
- huge release of anger
- sat through screaming mind trips
- flatness, boredom
- sick of so many changes
- incredibly strong hate-deep rooted, also fear and tension, always changing
- restlessness, aversion, sleepiness, quiet, then it starts over
- all up and down, up and down
- anger, violence, sexual fantasies and sleep alternate
- seeing incredible flatness of it all, then sometimes so solid ... so it goes up, down
- fear, anger, lightness-sometimes incredible appreciation
- mood swings from burning coals to cool breeze
- highs of bliss and very depressed lows-it’s all just happening
- doubts, bliss, pain, boredom, serenity, joy, aversion, pain. serenity-always changing
- intense emotions of anger, fear, sadness, and joy-the roller coaster ride-soh, my mind
- everything more intense
- move through emotional states faster now
- fantastic mood swings
- much turbulence of mind, then still
- one day is hard work-the next is easy as if being drawn by magnet
- very up and down, sharp changes in emotions
- huge extremes of moods
- days of acute anxiety depression-days of real highs
- seeing change everywhere
- boredom, interest, all change
- violent crying
- yesterday watched some old sorrow come into consciousness without knowing why (no incident) ... it was very strong, crying came, then it all passed
- restlessness
- intensely bored
- hellish
- waves of sadness for no reason
- laughing at little absurdities
- like an open cut-things are so raw-so sensitive; feels as though hell, heaven, day, night are crystal clear.
feelings of aloneness, loneliness, insecurity, desperation, absurdity—but no depression.

amazing and anxious thoughts of imminent pain, terror, disease and grief—I’m really scared.

mental states very strange-deep, deep fog alternating with shaky feeling and speedy intense rushes and buzzing, heaviness and exhaustion

tears, laughter, tears

feeling like a leopard-killing, eating people in fantasies.
thousands of questions-dintense desire to doubt, think, question depression, anxiety

intense homesickness

such boredom

waves of emotion passing through me

had extremely vivid image of huge festering sore on my chest and a large spoonful being scooped out; felt deep anguish, though not physical pain; shook and cried—very intense though it seems pretty permanent, hell passes away, then it comes back again

waves of emotion passing through me

rapture and pain alternate

alternation between a growing sense of just sitting, just walking, and slight boredom, distraction

anger, violent feelings, laziness, frustration, despair, surrender, calm

Another commonly reported category of experience is "rapture and bliss." While at least some blissful experience is reported by almost all long-term meditators, including 95% of three-month students who reported fully, 40% of two-week students also noted some experience of bliss or rapture. The reports usually associate blissful states with periods of no or low body pain, bodily lightness, and an "opening" of posture and full unconstricted breathing. Significantly, bliss is almost always associated with concentration of mind. In traditional Buddhist psychology, concentration is seen as a direct cause for the arising of these states (Buddhaghosa, 1976). Here are some descriptions:

experienced a few moments of what I call pure love, only glimpsed, but it was such bliss

luminous mind

body and mind became very light-sometimes I lose body contact

light and blissful feeling while walking

all is light, surreal and dream-like

such joy in the clarity of how all things pass

very blissful when concentration is good

prolonged bliss and openness
feelings of great power in the mind
malleability of mind, when concentrated I can move the mind, shape it, great bliss
overcome with overwhelming gratitude or with the tremendous beauty of the simplicity of some activity like walking
tingling and body lightness, very nice
intense joy in calm spaces
ecstatic clarity of bare attention - all things equal in rapture
joy in each step
insights, followed by elation or peace and happiness
bliss is frequent guest
I can "play" with what is happening to me now
rapture in walking - each step being such joy
great joy, radiant face, calm, empty, no tension at all
intense calm - no other bliss compares to this
radiant mind
malleable mind, joy in the practice
waves of rapture

The sample data presented here indicates the richness of reported experiences in all 22 categories. General patterns of change found in sequential interviews and questionnaire reports of students included unusual experiences in these areas:

- Somatic/body oriented data
- Sight, hearing, taste, and smell
- Sleep and eating patterns
- Emotions-affective changes
- Concentration
- Mindfulness
- General learning patterns
- Patterns of non-successful students
- Classical meditation patterns

CONCLUSIONS

Some of the conclusions based on the data collected in this study reflect clear-cut statistical information supplied by our questionnaires, while others are the result of a more general analysis of patterns of information which reflect the basic process of intensive mindfulness meditation. Although these conclusions are in certain cases very simple, they are intended to remedy some basic misunderstandings about the meditative process itself.

1. Meditation itself is not an altered state of consciousness, but
can be seen as a series of mental exercises designed to effect certain changes in how a person sees or relates to the world. As such, we cannot study a meditative state, but only examine the kinds of states, experiences and changes produced by various meditative practices. In meditation research therefore, precision and clarity are most important in describing the technique being studied. Ideally, such descriptions might develop a comprehensive typology of exercises and goals. Without this precision, it becomes superficial and misleading to compare current and traditional meditative techniques—e.g., T.M., Zen, visualization, prayer—though one were studying identical or even similar procedures.

2. *Mindfulness* meditation is much more than a process of simple relaxation. In the process of mindfully attending to the breath and other predominantly natural experiences, a wide range of altered states and unusual experiences may arise. Although profound relaxation is reported by students at times, usually this meditative relaxation is perceived as only one among many spontaneous and often dramatic changes in perception and experience. These varied experiences may arise in relation to any or all sensory modalities, and often include periods described by students as "unusually clear" or "enhanced sensitivity in perception."

3. Unusual experiences, visual or auditory aberrations, "hallucinations," unusual somatic experiences and so on, are the norm among practiced meditation students. These experiences are frequently described in the traditional literature (Vijanana, L960; Sobhana, 1965; Buddhaghosa, 1976), and are commonplace for long-term meditators. Over 80% of our three-month students reported such experiences as part of their normal meditation process. From our data it seems clear that the modern psychiatric dismissal of these so-called "mystical" and altered states as psychopathology—referred to as ego-regression to an infantile state or labeled as psychic disorder, is simply due to the limitations of the traditional Western psychiatric mental-illness-oriented model of mind (G.A.P., 1976). Rather, these experiences are normal perceptual changes happening in predominantly healthy individuals as part of a rigorous and systematic mental training of concentration and mindfulness.

4. The data show a strong positive correlation between student reports of higher levels of concentration (focused and steady mind-states) and reports of "unusual altered states and perceptions." It appears that the build-up of concentration is a major factor in increasing the frequency and duration of altered states. This concentration, focused on the changing ob-
practice increases mindfulness

5. The development of the insight practice appears to have increased the frequency of moments of mindfulness in the retreat environment. At first, new meditation students report being surprised at how infrequently they are able to be aware of their experiences throughout the day. As the retreat progresses, students describe the ability to be mindful becoming easier and more frequent.

emotion and mood changes common

6. Likewise, intense emotions and mood swings are a universal part of the practice reported in mindfulness retreats. In addition, frequent changes and swings were reported in most other areas of experience, particularly changes in moods, motivation, cognitive capabilities, perceptual clarity, concentration, inner stillness, sleep needs, food consumption, self-image, and bodily comfort. These dramatic changes are the most common pattern of experience for retreat students.

spontaneous body movements common

7. Spontaneous body movement, often described as “un-stressing” and “energy release” is commonly reported during mindfulness retreats. At times this will take subtle forms such as tremors, body vibrations, or slow spontaneous head and arm movements. Many others reported more dramatic releases: violent shaking, facial and body contortions, streams of sensations within the body and so on. Some of this movement appears to be related to the release of deeply held body tension, while other experiences were described as an arousal of internal energy through the mindfulness and concentration itself.

body pain reported frequently

8. Body pain is reported as a frequent meditation experience. Many students describe finding new ways to relate to their pain as a result of mindfulness practice. Some report experiencing increased detachment or ability to mentally release or control pain and its accompanying tension. Others report a greater ability to surrender to and concentrate fully on pain without feeling fear or mental discomfort.

rapture and bliss states common

9. Rapture and bliss states are also common at insight retreats and are usually related to reported increases in concentration and tranquility. They are described as arising whenever concentration is focused and strong even when the meditation object is intense body pain. A much higher percentage of three-month students reported these experiences than were noted during the two-week retreats. This may perhaps be explained by the fact that many more of the three-month stu-
tents reported development of strong concentration at some-
time in their retreat than was experienced and described by the
shorter-term students.

10. Marked decreases in sleep and eating occurred during the
practice at intensive retreats. Data from the three-month re-
treat showed a 25% average sleep drop among students who
reported more fully, and a decrease of one-third in food con-
sumption reported by the kitchen. Among students who de-
scribed periods of very strong concentration and mindfulness
(approximately half of our data sample) 62% reported a sleep
and eating decline in conjunction with their periods of greatest
mindfulness. We may speculate that when strong concentra-
tion and mindfulness occur, the mind is energized, alert and
balanced. This alert and balanced (or non-reactive) state may
result in less accumulation of physical and psychological ten-
sion, thus requiring less sleep. Similarly, such a state of possi-
bly reduced tension might require less energy for daily tasks
and therefore result in reduced food consumption. Often
retreat students report a sense of physical lightness, greater
energy and well-being during periods of strong concentra-
tion/mindfulness, and feel a decreased need of food to meet
their energy needs.

11. Exceptionally vivid dreams and nightmares are a very
common experience during insight retreats. Also reported are
general increases of awareness before, during and immediately
following sleep times.

12. There are few reports of spontaneous psychic phenomena
in the sample studied. Experiences described as "out-of-the-
body" travel are the kind most commonly noted.

13. Meditation does not appear to be a linear learning or
developmental process. Instead, the "mindfulness" meditation
appears to include periods of regression, restructuring and
reintegration as part of the basic growth pattern. This appears
to take place in regard to personality patterns and develop-
ment, and on more fundamental levels such as growing
awareness and integration of the inevitability of death. Stu-
dents report that unresolved internal conflicts often arise in
practice, and when these and their associated feelings are no-
ticed and experienced, they are frequently resolved sponta-
neously.

It seems important to emphasize that it is essential to recognize
the non-linear process of growth in meditation in order to
construct proper research models. Unfortunately much pre-
vious research has viewed meditation as if it would produce
simple growth curves based on measuring one or more psychological or psycho-physiological variables over time. Upon recognizing the meditative pattern of periodic regression, restructuring and reintegration, it becomes clear that to take an average measure of a population of meditators over time will not account for those sample members who are experiencing the extremes of regression or of advanced concentration, and would result in a meaningless average. Care must be taken in research design to acknowledge the complexity of this growth process, and to design sufficiently sensitive or long-term studies to measure changes while allowing this non-linear development to take place.

14. One of the most frequent developments reported in mindfulness practice is a growing ability to adapt easily to a large range of fluctuating experiences. This is noted as a growth of equanimity and calmness in the face of extreme bodily and mental changes. In deeper levels of practice, characterized by strong concentration and mindfulness, meditators often experience periods of strong fear and insecurity. These are usually resolved by surrender, by fully experiencing them, leading to a greater development of equanimity. This process of fear, surrender and equanimity seems central to the growth of insight. Some of the most important learning reported in the retreats take place in relation to such intense negative states as rage or terror.

Deep practice also involves mindfulness of death-like experiences, reported as feeling a dying of the body, death of illusions, of self-images, of ideals, of past and future, and the idea of one self as permanent or solid at all. One of the experiences most commonly described as powerful or transformative is the insight into the moment-to-moment changing nature of the self. Students report experiencing themselves as simply a flowing process of sense perceptions and reactions, with no sense of a fixed self or person existing apart from this process at all. The development of equanimity in relation to death-like and dissolution-of-self experiences described by students is in keeping with the traditional portrayals of meditative growth (Sobhana, 1965).

15. Descriptions of meditators' experiences were compared to several traditional Buddhist texts which purport to describe the usual development of meditation practice. These texts start their description at a point of already quite advanced concentration and attainment, in which discursive thought is absent or very infrequent and noticed as soon as it arises. A limited number (perhaps 30%) of the three-month meditators seemed
to progress to these higher levels of concentration, a consider-
ably lower number than reported by similar three-month
trainings in Asian meditation centers (Sobhana, 1978). Our sam-
ples population contained a small number of students (10%) who
became highly concentrated above these levels, a small
number (8%) who reported themselves as not at all successful,
and a large group who fall in between these two extremes.

The meditators who did reach higher levels of practice de-
scribed in the traditional texts reported very profound expe-
riences and noted spontaneously a number of perceptions
which followed the traditional progress of "insight" (Vijanana,
1960; Sobhana, 1965)-that is, the traditional sequence of al-
tered perceptions which students of intensive mindfulness
training purportedly experience upon developing strong con-
centration in practice. While this study did not collect enough
data to confirm these classical stages of "insight," several stu-
dents replicated parts of it, leading to the conclusion that it
remains a useful model to be studied, using those few students
who are able to cultivate very high levels of concentration and
awareness.

In general, the data collected in this study maps the range of
typical student practice from the beginning of meditation to
the early stages of the traditional literature. These initial stages
include a wide variety of unusual experiences and insights and
are often overlooked in traditional Buddhist meditation cartog-
raphy, yet are essential to an understanding of the medita-
tion practice now found in the West.

16. Control Study: The control group study clearly indicated
that the wide variety of unusual experiences and patterns of
somatic, affective, sleep, eating and other changes reported by
subjects must result from the intensive meditation practice
itself combined with the effect of the silent retreat environ-
ment, and are not a result of lectures, beliefs, interviews or the
participation in a spiritual community.

Identical questionnaires were gathered from 21 persons in a
5-week control group. This group, students in a non-retreat
meditation class at a Buddhist university, was composed of a
similar age range, sex distribution, spiritual background and
interest as the retreat students. In addition, during a two-hour
class which met three times per week for five weeks, the control
group was exposed to identical instruction, interviews and
lectures as the retreat students; and although they lived
together in a spiritually oriented community, they practiced
meditation only one to two hours daily instead of the twelve-to
fifteen-hour norm at retreats. The difference between the retreat and non-retreat students was that retreat students practiced meditation many more hours daily and lived in a silent retreat environment.

The questionnaires collected from the control group, however, differed markedly from the retreat students. Only 2 out of 21 controls reported sleep decreases, while two reported an increase. By contrast, intensive retreat students (70%) reported sleep decrease in a similar period. Similarly, eating patterns, which decreased in almost all of the three-month students over five weeks, were reported as diminished in only 5 out of 21 controls. That it was even this high may be related to the slow mindful eating practice stressed early in the control class, rather than to a special meditation effect. Only one student in the control group reported any overall strengthening of concentration, others simply noted fluctuations in their initial ability to be mindful or to concentrate at all. In contrast, after five weeks, most intensive retreat students had reported at least some periods of strong mindfulness.

Lastly, the control group reported only two unusual perceptions and six instances of stronger than normal emotions during meditation. This can be compared to a huge variety of unusual perceptions, body movements, mood swings and insights which were reported by almost 70% of the students from whom data was collected during the first five weeks of the three-month retreat.

What the control group seems to show quite dramatically is that the vast array of experiences reported by intensive retreat students comes not from the social or instructional set, but from the retreat practice itself—the intensive meditative exercises combined with a disciplined silent retreat setting.

Follow-up questionnaires returned by students several months after the end of the three-month retreat indicated that most altered state changes and unusual perceptions or concentration effects were short-lived, and had vanished by the time of the follow-up study. Students reported more positive, long-lasting changes in the area of such traits as openness, equanimity, and a relaxed attitude toward life. The long-term trait changes reported seemed more related to the development of mindfulness and equanimity than to concentration. Many reported that after leaving the retreat they experienced some difficulties integrating back to their more worldly lives, yet many noted that this integration of mindfulness and practice into daily life was for them a crucial part of their whole meditative growth process.
The general purpose of this study is to begin to chart the wide range of experiences and processes which accompany the practice of meditation. Although much more detailed information has been analyzed in the thesis upon which this paper is based, the material presented here gives a general overview of the kinds of data, patterns and conclusions coming from this study.

In the past, Western research has often viewed meditation as a simple, linear learning process. In view of the data presented in this study, it can be seen that growth through intensive meditation practice is a complex, non-linear phenomenon involving somatic, affective, perceptual, cognitive changes, and more. Such growth cannot be fully understood using the models from any single branch of psychology, but will require the employment and synthesis of many psychological tools and approaches for a significant understanding. To study meditation is to study the human growth process and to expand our understanding of the limits of the human mind. By starting with the direct experiences and being open to their range, frequency, and as well, to the very infrequent but unusual phenomena, we map the necessary ground which precedes further investigation and understanding.

REFERENCES


SOBHANA, M. Personal communication. 1978.

Communications with the author may be addressed to Insight Meditation Society, Pleasant Street, Barre, Massachusetts 01005.