Sampling the inner experience of bulimic and other individuals

Stephanie Anne Doucette

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Sampling the inner experience of bulimic and other individuals

Doucette, Stephanie Anne, M.A.
University of Nevada, Las Vegas, 1992
SAMPLING THE INNER EXPERIENCE
OF BULIMIC AND OTHER
INDIVIDUALS

by

Stephanie A. Doucette

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Arts

in

Psychology

Department of Psychology
University of Nevada, Las Vegas
December, 1992
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University of Nevada, Las Vegas
December, 1992
Abstract

This study investigated the inner experience of five bulimic subjects, ages 18 to 56 years, using the descriptive experience sampling method (Hurlburt, 1990). Subjects were signaled at random intervals by a programmed beeping device, asked to "freeze" any inner events, such as thoughts, images, or feelings, at the moment of the beep, and to record this experience in a notebook. Subjects met with investigators within 24 hours to discuss each sampled moment in detail. Investigators then examined subjects' descriptions for emerging salient characteristics. All bulimic subjects reported multiple inner events ongoing simultaneously, a characteristic seldom found, using this method, among nonbulimic subjects. Some bulimics reported that they put thoughts "on hold" while they processed others--another unusual characteristic. Additionally, the bulimics exhibited confusion in differentiating thoughts from feelings, thus sometimes thinking their feelings and feeling their thoughts. Characteristics of the bulimic subjects' inner experience support past findings that bulimics are emotionally turbulent, depressed, and somatically preoccupied. Two nonbulimic individuals were also investigated using the same procedure.
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Acknowledgements

I gratefully acknowledge Dr. Russell T. Hurlburt's indispensable guidance and assistance throughout this project as we sought to investigate that most personal of individuals' experiences, their innermost thoughts, feelings, and images. I extend my thanks also to the other members of my committee, Dr. Don Diener, Dr. Diane Turnbough, and Dr. Rosemary Witt, who graciously ploughed through this rather lengthy tome and offered me their invaluable advice.

I offer a special thank you to my subjects, who so unselfishly gave of their time and effort in the service of this project. Without individuals such as these, there could be little useful research.

Thanks also to my family and friends for never seriously doubting that this thesis would eventually be forthcoming, appearances at times to the contrary.
Introduction

As molecular biologist James Watson (1992), co-discoverer of the double helix that is DNA, recently observed, "The brain is the last and greatest biological frontier...the most complex thing we have yet discovered in our universe." This is undeniably true. In search of a better understanding of this complex organ, scientists have developed powerful new neurophysiological diagnostic devices with exotic-sounding names, such as magnetic resonance imagers (MRI), positron emission tomography (PET) scanners, and superconducting quantum interference devices (SQUID), that can map the structure of the brain and detail neural activity ever more accurately. Nevertheless, despite all the advances in understanding the brain's physiological topography and the loci where cognitions, language, and feelings originate, the content of these inner events, and each individual's unique way of thinking remains as mysterious as ever. Understanding people's inner experiences cannot be considered to be strictly a biological proposition, a fact that has been understood by scholars for millennia.

The early philosophers sought to understand the brain in terms of humans' higher mental processes: cognitions, consciousness, thoughts, awareness—in short, the workings of the mind; the early psychologists attempted to study the same inner experience in less metaphysical, more scientific
ways. Modern psychologists are still engaged in this exploration.

One of the methods of exploring inner experience is the descriptive experience sampling method pioneered by Hurlburt (1990). We used this method to provide a glimpse into the inner experience of individuals suffering from a distressing, debilitating disorder: bulimia.

We begin by offering a brief history of early attempts to study cognitions, as well as an overview of thought sampling, the descriptive experience sampling process itself, and its forerunner, introspection, followed by a review of the literature on bulimia. We then present a description of the inner experience of five bulimics, an exploration of the salient characteristics of this inner experience, and a discussion of the similarities and differences in the thought content of our bulimic population. Finally, the inner experience of two nonbulimic subjects will be explored, not as a control, but simply to add to the pool of subjects whose inner experience has been sampled using the descriptive experience sampling method.
Chapter 1

Overview of Thought Sampling and Descriptive Experience Sampling

The process of examining individuals' inner mental experience has had a long, if choppy, history in Western thought, beginning with the early Greek philosophers' wonder at how humans acquire knowledge and discern truth. However, it was not until the late 1870s that the study of the thinking process changed inexorably from an essentially philosophical concern to a psychological one: In 1879, Wilhelm Wundt opened the first scientific laboratory and began the anti-metaphysical tradition that persists in psychology today. In the process, a new experimental (and cognitive) psychology was born.

The Introspectionists

For Wundt, the goal of the new discipline of psychology was the study of "conscious processes," or what he considered part of "immediate" or direct experience (color, texture, etc.) as opposed to "mediate experience" such as meaning or context (Hothersall, 1984). Wundt believed that, unlike physicists, psychologists do not study the external world per se, but instead examine the psychological processes by which we observe and experience the external world.
Wundt and his students, most notably Edward Titchener and Oswald Külpe, examined psychological issues using a technique known as "self-observation" or "introspection." Wundt's introspection was an arduous, rigidly-controlled procedure in which highly trained observers were required to describe their own mental experiences. From these introspections, they identified three basic elements of consciousness: sensations, images, and feelings. According to Wundt, complex mental processes result from the creative syntheses of these elements. Feelings possessed three dimensions: pleasure-displeasure, excitement-calm, and strain-relaxation (Hothersall, 1984). Wundt was heavily influenced by the English psychologists who wrote about associations. Association for Wundt occurred passively; he called active association "apperception" (Boring, 1950).

In time, Wundt's student Külpe challenged some of his teacher's fundamental tenets. Külpe and his own students came to believe that, because experiencing individuals are biological organisms, mental experience and mental events have a biological basis, and thus can be examined using the methods of the natural sciences. In 1901, Külpe established what came to be known as the Würzburg School, to examine complex thought. The Würzburgers--Külpe, Mayer, Orth, Marbe, Ach, Watt, Messer, and Bühler, among others--believed that psychology should provide objective, rather than subjective, descriptions of mental events for, unlike Wundt,
they felt that complex phenomena, such as thinking, judging, doubting, and remembering, were indeed within the purview of experimental psychology.

Initially, the Würzburgers embarked on an investigation of the qualitative nature of associations; they asked subjects (often the researchers themselves) to describe their mental processes during problem solving and found that different subjects reported different patterns of association. Later, they sought to explore the characteristics of higher thought processes using systematic experimental introspection. They added perceptions, images, and volition, as well as an imageless element—called "conscious attitudes" that were not an act of will—to the prevailing understanding of the thinking process (Boring, 1950). In short, the Würzburg School held that thinking may occur without imaginal or sensory content, and they modified the notion of associationism to include a cognitive "set" to respond in a certain way; these mental attitudes or preparations were called Aufgaben (Hothersall, 1984).

In their views on associations, Külpe and the other Würzburgers were influenced by the Englishman, Sir Francis Galton, who (among many other worthy accomplishments) had independently demonstrated—with his publication in 1879 of a description of an experimental method for studying cognitions—that he was a careful introspectionist. Using himself as subject, he would walk along the streets of
London, notice some object, and use it as a stimulus to free-associate. Galton periodically recorded his thoughts, then described characteristics of the associations and the types of cognitions that occurred: verbal, imagery, or abstractions. Galton argued, against the prevailing opinion of the philosophers, that, "The report of a man as to what goes on in his own mind is as valid as the report of a geographer about a new country" (cited by Boring, 1950, p. 484). Thus, the self-reports of individuals as they observed their own mental processes, even those individuals untrained in the introspectionist method, were seen by Galton as reliable (this belief helped to legitimize the use of self-reports in in vivo thought sampling as it is undertaken today).

Across the Atlantic, William James also studied consciousness by informal introspective analysis of his own conscious experience. James conceptualized thinking as being like the flow of a stream, and thus found fault with Wundt's assumption that consciousness was the synthesis of basic elements (Boring, 1950). James proposed instead an analytical approach that studied how the mind works. For him, the outstanding feature of consciousness is that it is adaptive, thus allowing individuals to adjust to their environments. He believed that consciousness also has a number of other characteristics: It is personal, ever-
changing, continuous, and selective (Hothersall, 1984), a remarkably modern notion even when considered today.

Another introspectionist, Külpe's colleague Titchener, who was influenced mostly by Wundt, also cocked an ear to Galton's associationist views. Titchener believed, like Wundt, that thought was a complex of sensations, images, and feelings perceived by the mind; images of physical objects that were not physically present were associations, or ideas. According to Hothersall (1984), for Titchener, both sensations and images had several characteristics: quality (e.g., sweetness of a taste); intensity or degree; duration; vividness; and extensity or "spread-outness." Feelings, on the other hand, were emotional reactions that accompany certain mental experiences.

Psychology for Titchener was strictly the study of consciousness; however, he believed that everything that is to be studied scientifically must be observable. Thus, he rejected Wundt's three dimensions of feelings, and (like Wundt) refused to concede that there was any such thing as the Würzburger's "imageless thought." Also like Wundt, Titchener repudiated Külpe's view of attention. Although the Würzburg School's subjects' introspections purportedly yielded descriptions of attention, Titchener's did not. Consequently, for Titchener, attention was not something individuals experienced but rather something they attributed to their experiences. (Wundt made a distinction between
attention and consciousness; he contended that consciousness contained images but these may not be noted because, at the time, the person's attention was focused on another aspect of the thought.) Demonstrating his avoidance of philosophical constructs, Titchener maintained that meanings were not experienced either, but instead were logical affairs that should not be studied in this context by psychologists (Hothersall, 1984).

Despite the enthusiasm generated by the introspectionists and the exciting new psychology their cognitive experimentation engendered, introspection faded into relative obscurity. Perhaps this was a result of the polarization of introspection's main warring factions: the Wundt/Titchener contingent, with their sensationalist views that did not allow for inference or meaning, and the Würzburgers, with their allegiance to abstract sensory elements. Perhaps it was simply that the interpretations of both camps were as subjective as their methods (in spite of the Würzburgers' attempts at objectivity), and thus suspect, as psychologists from the early behaviorists on have claimed. Fortunately, however, due in no small part to Wundt's insistence on experimental rigor, excellent records exist of his own and his followers' research on inner mental experience. For a more comprehensive historical review of the introspectionists, see Monson (1989).
In Vivo Thought Sampling

With the decline of introspectionism and the advance of behaviorism, little research was conducted with the goal of collecting and studying individuals' inner experiences, at least until the 1960s. By the 1970s, however, there emerged a new interest in examining the stream of consciousness (Singer, 1981). As Singer mischievously put it, "William James would be delighted to know that consciousness is (dare I say it) now the mainstream!" (Singer, 1984, p. 7).

Hurlburt (1978) believed that researchers engaged in the random sampling of the stream of consciousness are involved in "The second experimental introspection of thinking." Hurlburt contended that, because Wundt denied the possibility of examining higher mental processes through introspection, the Würzburg School, which expressly sought to bring thinking within the range of experimental psychology, deserves the title, "The first experimental introspection of thinking."

As we have seen, Francis Galton was an early practitioner of in vivo thought sampling. In his introspective strolls along Pall Mall, he hoped to show "how the whole of [one's] associated ideas, though they are for the most part exceedingly fleeting and obscure, and barely cross the threshold of our consciousness, may be seized, dragged into daylight, and recorded" (cited in Crovitz, 1970, p. 24). This, essentially, is the premise under which
much of the current research in sampling inner experience is conducted. As mentioned earlier, Galton's assertion of the reliability of an individual's self-report of his [or her] inner experience helped set the stage for in vivo sampling of inner experience. However, as Kendall and Korgeski (1979) pointed out, Galton's productive walks suffered from a serious methodological flaw: His recordings of his inner experience were neither random nor independent. Modern psychologists have striven to remedy this shortcoming and in the process, new methods of in vivo thought sampling have been developed.

Among the early predecessors of modern thought sampling were Nowlis and Cohen (1968), who used hourly (thus nonrandom) self-ratings of mood to study three college students who were under academic pressure. In an attempt at random sampling, the researchers tried to obtain data in the subjects' normal life at times independent of certain events.

Another early contributor was Brandstätter (1977, in Hormuth, 1986), who proposed a method to allow for the measurement of subjective well-being in everyday situations. He suggested the use of a random timer over a four-week period to elicit subjects' self-reports of actual mood, current situation, and their suspected reasons for their current moods.
Hormuth (1986) noted that one of the most influential researchers in thought sampling was Csikszentmihalyi, who with his associates has demonstrated the usefulness of the method in the investigation of a wide variety of questions (Larson & Csikszentmihalyi, 1983). They used electronic pagers to signal subjects to report their cognitive, emotional, and motivational thoughts in several research projects, including the study of determinants in self-focused attention (Csikszentmihalyi & Figurski, 1982), the effects of loneliness in adolescence (Larson & Csikszentmihalyi, 1978), and the influence of television on daily activities (Csikszentmihalyi & Kubey, 1981). As Hormuth pointed out, a major study of adolescents (Larson & Csikszentmihalyi, 1984) illustrated the richness of experience sampling data and demonstrated a variety of approaches to data analysis, at the level of both individual cases and aggregate data.

Modern methods of thought sampling have used both retrospective and nonretrospective reports. Retrospective reports, where subjects recall their thoughts, feelings, etc., at some later time, have been obtained by means of questionnaires, data from laboratory signal-detection tasks, from think-aloud studies, and from thought sampling, all of which leave the interpretation of the material entirely to the investigator. A more complete discussion of these retrospective methods, as well as earlier issues concerning
the use of questionnaires and thought sampling, is found in Saltman (1983).

Nonretrospective reports ask subjects to report thoughts, feelings, etc., that are occurring at the present time. As Saltman (1983) outlined, such reports have been obtained in a number of ways: in dream research, subjects were awakened and asked to report their dreams just prior to awakening; students in classrooms were interrupted by a bell and asked to fill out questionnaires regarding the extent of their level of attentiveness; in daydreaming studies, subjects' thinking during dichotic listening tasks was compared with their thinking in their everyday environment.

There is no question that, regardless of the type of report employed, the earlier researchers needed an ecologically valid method of studying the ongoing stream of thoughts of individuals in their normal environments. According to (Hormuth, 1986), the random sampling of moments in individuals' lives, rather than sampling from situational stimuli, is one of the best answers to the call for ecological validity.

Recognizing this, Hurlburt (1979) summarized the need and developed the hardware for a technique that gathers information over relatively long periods of time, in the subject's own environment, at times not contingent on any environmental event, minimizing reactivity and minimally disturbing the individual's environment. Hurlburt's
research thus involved random sampling of moments during the subject's everyday life. His primary focus was not on the events and behaviors taking place, but rather on the person's thoughts (Hormuth, 1986).

According to Hurlburt and Melancon (1987a), results of earlier thinking research reported in the literature, based on questionnaire or sampling data, are difficult to compare because they differ on three independent dimensions: whether observations are immediate or retrospective, whether they measure single or multiple moments, and whether they are directed at specific thought events or at thought events in general.

Hurlburt postulated that thought sampling over an extended period, using a random beeper, was a viable technique for eliciting accurate reflections of subjects' inner experience, and speculated that this method was preferable to the use of retrospective reports.

A similar technique, random thought sampling, had also been developed by Klinger (1978). He used a portable beeper to sample the inner experience of subjects who were trained in ways of reporting their thoughts. At the randomly-timed signal, subjects recorded their thoughts and/or rated their inner experience on a variety of variables, using a Thought Sampling Questionnaire.

In an early example of thought sampling, Hurlburt and Sipprelle (1978) used Hurlburt's random beeper to
investigate a subject suffering from severe anxiety attacks. Several days of sampling revealed that the subject had repressed his negative thoughts regarding his young children.

Klinger, Barta, and Glas (1981) used thought sampling to determine that the thought content of college basketball players was more focused on play during intervals when their team was performing well than when it was performing poorly. Rather than using a portable beeper, which would have been impractical, signals to come out of the game (or taps on the shoulder for bench warmers) were to be considered by subjects as signals to narrate their thoughts and rate their moods by talking into a cassette tape recorder concealed in a styrofoam cup.

As Klinger et al (1981) undoubtedly realized, even when using a random beeper it is preferable to have subjects record their thoughts at once rather than later on. Indeed, even short delays in recording inner experience can alter the nature of the reports. In a study of time delays versus immediate reports of thought samples, for example, Lech (1980) found that the reports of subjects who rated their thoughts immediately after a signal were significantly less likely to exaggerate the irritation and anger, self-criticalness, guilt, vividness, and clarity of their inner experience than were those who rated their thoughts after a delay.
Kendall and Korgeski (1979) concurred with the need for immediate recording of subjects' thoughts. In their review of methods for assessing cognitions, these investigators stated that the advantage of using a randomly-generated signal and immediate recording of subjects' thoughts is that it guarantees that the subjects' thoughts are sampled "on the spot," and thus does not rely strictly on a person's later recollections.

Since its early applications, in vivo thought sampling has proved useful in a variety of research projects. In a study conducted by Klos and Klinger (1981), for example, influences on adolescents' stream of consciousness following simulated parental confrontations were examined. These researchers found that long-term parental conflict was the greatest determinant of emotional arousal and repetitive thought of confrontation, even if the present situation was resolved.

Thought sampling has also been employed to study personality variables. Melancon and Hurlburt (1988) explored the relationship between regularities in classroom students' inner experiences of thought and mood and regularities in their personality characteristics. Forty-two cognitive and affective variables were factor-analyzed, and the factors were correlated with scales for the 16 PF. Significant correlations were observed between three of these factors and the scales of 16PF.
Parks, Klinger, and Permutter (1988) combined thought sampling and questionnaires to assess the dimensions of thought as a function of age, gender, and task difficulty. In essence, they studied the problem-solving properties of the stream of consciousness by means of thought sampling, and gathered other information, such as daydreaming activity and current concerns, on questionnaires. Results supported the efficacy of a multidimensional approach to the definition and assessment of imagery.

The prognosis is good for the future usefulness of thought sampling, used alone or in combination with other methods. As long ago as 1979, Kendall and Korgeski suggested that a combination of methods such as questionnaires, in vivo thought sampling, and self-assessments is crucial for the development of cognitive-behavioral therapies. They also believed that in vivo thought sampling would be a useful outcome measure in psychotherapy research; using this method, baselines may be taken, and the effects of therapeutic intervention might be assessed to evaluate changes.

Among others, Singer (1984) believed that thought sampling, along with other methods, can aid in the adjustment and enhancement of previous theories of consciousness. As he said, "We must consider the basic systems through which information is initially received and stored, since variations in processing styles may already
lead to the structural and content variations that uniquely shape the unique sense of a private personality" (Singer, 1984, p. 7).

More recently, Vitousek, Daly, and Heiser (1991) investigated the problem of denial and distortion in self-reports of eating disordered individuals. They recommended a number of methods, including collecting data in vivo, for overcoming or reducing the compounding of subjects' biases with clinician and/or researcher bias.

Descriptive Experience Sampling

All the studies in the previous section rely on quantitative ratings of inner experience being made at random moments. The descriptive experience sampling method designed by Hurlburt (1990) explores qualitative descriptions of experiences.

Current research in descriptive sampling of subjects' cognitions and other inner events typically revolves around a random-interval generator device (patented by Hurlburt in 1976) that signals subjects with a beeping sound. Subjects are asked to record their thoughts, usually in a small notebook, at the moment they are signalled.

Hurlburt & Melancon (1987a) used Hurlburt's random sampling technique to produce a narrative description of the inner experience of a schizophrenic young woman. This exemplified in detail the everyday distortions—called
"goofed-up" images by the subject—of her inner experience, and that of other schizophrenic subjects who were sampled (Hurlburt, 1990). These first-hand views of a schizophrenic's mental world would have been difficult or impossible to obtain using retrospective techniques (indeed, it was difficult enough for the schizophrenic subjects to record the reports as they happened, and for the investigators to debrief them).

Since then, descriptive experience sampling has been employed in several studies. Monson (1989) used the method to investigate the inner experience of adolescents. Hebert (1991) explored the inner experience of anxious individuals by means of descriptive experience sampling, and found that they differed from normal, schizophrenic, and depressed subjects in the amount of verbal and nonverbal thought, and the ability to describe feelings. Schamanek (1991) used the method to investigate the inner experience of learning disabled individuals, and found that these subjects experienced considerably less inner speech than do non-learning-disabled subjects, supporting the findings of other researchers not using this method. The descriptive sampling method was used to investigate the inner experience of bulimics in the present research.
Thought Sampling of Anorectics and/or Bulimics

To my knowledge, only three studies have thus far been conducted using any kind of thought sampling method to investigate the inner experience of anorectics and/or bulimics; all three of these were of the quantitative type. One study was conducted by Larson & Johnson (1981). In this research, an electronic pager was used to signal the two participants—anorectic women who were both bingers and purgers—to fill out self-reports according to a systematic schedule. They were asked to identify where they were, what they were doing, and whom they were with at the time of the signal. They were also asked to write down what they were thinking about and to rate aspects of their subjective state, that is, to rate their feelings of vulnerability, guilt, and control of the situation on scales of zero to nine. The signals occurred at a random time, once within every two hours between 8:00 a.m. and 10:00 p.m. Subjects carried the pager and filled out the reports for one week. Investigators discussed each subject's reports at the end of the sampling period.

Three of the self-report items dealt with affect (cheerful-irritable, happy-sad, sociable-lonely), three with potency (active-passive, alert-drowsy, strong-weak), and two with other qualities of mood (excited-bored, free-constrained). These items were summed to create a scale of overall mood. The normative sample was 24 young single
women from a larger study of adult experience (Csikszentmihalyi & Graef, 1980).

In Case 1, the subject's self-reports in response to the pager showed a pattern of depression and vulnerability in her daily experience. She stated that the pager had little influence on her experience. She reported feeling vulnerability, worry, and depression, as well as positive feelings of warmth, and a feeling of being excited, yet nervous. Her lowest and highest emotional states were associated with eating.

In Case 2, the subject also stated that the research experience had little influence on her thoughts, feelings, and actions. She reported feeling guilt, vulnerability, depression, being out of control, being controlled, and having negative feelings about her father, her boyfriend, and men in general. She also reported a bout of unprecipitated, uncontrolled depression on the last day of sampling; the depression persisted for several days.

The anorectics differed most from the normative sample on the cheerful-irritable and the happy-sad items. They reported feeling irritable more than cheerful and sad more than happy. Their average response for those items was well over one standard deviation below the normative sample; on the item happy-sad, Case 2's average response was two standard deviations below the norm. For most responses on
the other six items, both subjects were again below the norm.

The researchers concluded that while both subjects reported occasions when their mood was positive, the data suggest that their average emotional state was depression. Judging by their ratings on the feelings of vulnerability, guilt, and control of the situation, it was speculated that both were in a state of emotional fragility.

In another study (which did not use random signals), Johnson and Larson (1982) had bulimia nervosa patients rate mood and eating-purging behavior every two hours throughout the day for one week. They found that vomiting relieved negative feelings of anger, inadequacy, and lack of control; they concluded that the vomiting component of the binge-purge cycle is anxiety-reducing. These investigators speculated that once the pattern of binge eating and purging becomes established, it begins to be utilized for other purposes as well, especially the regulation of dysphoric mood states.

The third and most recent use of thought sampling was a study of the role of cognitions in bulimia nervosa by Zotter and Crowther (1991). This research investigated several characteristics of 15 bulimics, 15 repetitive dieters, and 15 nonbulimic, nondieting women, using an in vivo thought sampling procedure. Subjects, who were blind to the inclusion criteria, attended a two-hour training session in
cognitive self-monitoring during which the effects of cognitions on behavior were discussed and exercises to increase their internal monologues were performed. After training, subjects were asked to practice self-monitoring their thoughts every 30 minutes in response to an alarm watch, and to write down their thoughts in a notebook.

Following training and practice, subjects self-monitored their thoughts every 30 minutes (thus not at random times) for two randomly selected days. Their cognitions were rated by independent raters on content, affective tone, accuracy, and adherence to a dichotomous thinking style. (The rationale for the dichotomous thinking paradigm was the researchers' belief in the role of dichotomous cognitions as precipitants of episodes of overeating.)

Results indicated that bulimics reported thoughts consistent with those reported by clinical populations. They reported significantly greater proportions of eating- and weight-related thoughts than non-eating-disordered controls, and significantly greater proportions of negative affect thoughts than both other groups. Furthermore, these thoughts were more likely to be distorted.

The authors of this study acknowledge that it would have been more desirable to sample thoughts randomly rather than at 30-minute intervals, but state that the technology was not available to them at the time. Additionally,
because of the potential reactivity of monitoring food intake on the cognitions reported by subjects, subjects were not asked about dieting, binge eating, or purging.

We turn now to a review of the literature of bulimia and, to a lesser extent, of anorexia.
Chapter 2

Bulimia Nervosa and Anorexia Nervosa: A Review of the Literature

Although this paper is essentially concerned with bulimia nervosa, for the purposes of the literature review it is impractical (and well-nigh impossible) to separate the eating disorders, anorexia nervosa and bulimia nervosa. As Russell (1988), among others, has noted, there is a link between the two disorders and considerable overlap between them, so there is doubt as to the wisdom of attempting too precise a separation between anorexia and bulimia. Following Russell's advice, this paper makes no definitive division between them other than for the sake of convenience for discussion purposes. Because the vast majority of sufferers from bulimia and anorexia are women, we shall use the feminine pronoun to describe them throughout this chapter, recognizing that in fact some anorectics and bulimics are male.

Before the mid-1970s, anorexia nervosa was a relative curiosity and rarity, and bulimia nervosa was largely unheard of, even though the term "la boulimie" had been used in the French literature as early as the eighteenth century to describe a pattern of overeating (Gordon, 1990). Although in the past dozen or so years there has been a
proliferation of literature on these puzzling and dangerous 
afflictions, a brief excursion into the history books 
reveals that the eating disorders are by no means recent 
discoveries.

History

The term anorexia nervosa was first used in 1873 by 
London physician Sir William Withey Gull, who occasionally 
encountered the condition in his patients. However, long 
before that, anorectic symptoms were documented when 
physician Richard Morton produced the first clinical account 
of anorexia nervosa in his Phthisiologia: Or a Treatise of 
Consumptions, first published in Latin in 1694 (Hsu, 1990). 
In fact, the phenomenon of self-starvation was documented in 
the middle ages, when fasting was considered fundamental to 
holiness, especially for religious women. Brumberg (1988) 
provides an excellent history of anorexia nervosa, tracing 
the disorder from medieval times, through the era of the 
"fasting girls" in the late 1860s and 1870s, to modern 
times.

Despite its lengthy history, anorexia nervosa was 
"discovered" by the general public only in the 1970s, when 
popular magazines reported on the "bizarre starving 
disease." In medical circles, however, anorexia nervosa was 
well recognized before this, and the diagnostic criteria for
the disorder have been generally agreed upon since the 1970s (Russell, 1988).

Professional interest in the eating disorders grew exponentially in the 1970s and 1980s, beginning with Bruch's book, *Eating Disorders*, in 1973. Although Bruch had been treating anorectic patients since the 1940s, the book was published initially in obscurity, of interest only to the psychiatric community. With the enormous increase in the numbers of anorectic and bulimic patients, the book has since been recognized as a classic work (Gordon, 1990).

Bulimia occurring in nonemaciated individuals was virtually unrecognized as a distinct disorder until relatively recently, even in medical circles. However, occurrences of vomiting and binge eating in the context of anorexia nervosa were clearly described by Bliss and Branch (1960, p. 2) and later by others. The syndrome has been variously labeled: It has been called "bulimarexia" by Boskind-Lodahl (1976), who wrote the first contemporary paper on the syndrome, a feminist interpretation of anorexia nervosa and of bulimia (Bruch, who did not agree there was a connection between anorexia and bulimia condemned the term "bulimarexia" as "a semantic monstrosity"). Reflecting the diversity of symptoms offered by bulimic patients, bulimia has also been called hyperexia nervosa, dysorexia, the thin-fat syndrome, the dietary chaos syndrome, and the abnormal-normal weight-control syndrome (Lacey, 1985). By the early
1980s, bulimia by whatever name had come to public and professional attention.

Nonetheless, bulimia was not introduced as a separate nosological entity until 1980, when it was classified in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III). Even then, the diagnostic criteria were the subject of frequent, often acrimonious, debate. Seven years later, however, the American Psychiatric Association (1987) renamed the disorder "bulimia nervosa" and provided clear-cut, unambiguous diagnostic criteria.

In 1982, a journal totally devoted to research on anorexia and bulimia, the International Journal of Eating Disorders, initiated publication; since its inception, the number of articles appearing in it have grown rapidly. By the mid-1980s, inpatient units devoted exclusively to the treatment of anorexia and bulimia had become commonplace, as had self-help organizations devoted to patient and family support, as well as education.

Symptomology

Anorexia nervosa (anorexia is from the Greek for "loss of appetite") is characterized as self-starvation in a "relentless pursuit of thinness" (Bruch, 1978, p. 555) or because of a "weight phobia" (Crisp, 1967, p.5) or "a morbid fear of becoming fat" (Russell, 1970, p. 134). As many researchers have noted, the term "anorexia nervosa" is a
misnomer. Literally translated, it means a nervous loss of appetite; however, anorectics do not refuse to eat because they have no appetite, but rather they are afraid to eat because of an implacable and distorted attitude toward weight, shape, and fatness (Hsu, 1990).

Bulimia nervosa (bulimia is from the Greek for "ox appetite") is a pattern of binge eating typically followed by self-induced vomiting. The term "bulimia" is far from a misnomer as the bulimic's appetite for food, particularly carbohydrates, is at times insatiable (Lacey, 1985).

Russell (1988) has suggested that the form of anorexia nervosa has changed in the second half of the twentieth century, with bulimia now a characteristic part of the clinical picture. He speculated that the change in anorexia is an example of the more general phenomenon of "pathoplasticity," that is, the disease is more malleable under the influence of historical factors or altered cultural conditions. Gordon (1990), too, believed it likely that in its contemporary form, bulimia constitutes a variant or kin of anorexia nervosa. However, he noted that bulimics' weight does not drop to the dangerously low level that is the characteristic of anorectics, and he believed that even more than anorexia, the bulimic cycle of binge eating and purging resembles an addictive form of behavior that has sometimes been compared to alcohol abuse.
The majority of sufferers from eating disorders are female adolescents (Crisp, 1982), although the clinical features are not remarkably different when the illnesses occur in older females or in males. Denial of symptoms is widely acknowledged as a hallmark of anorexia and bulimia, so the internal experience may be misrepresented by anorectic and/or bulimic individuals (Vitousek, Daly, & Heiser, 1991). Nonetheless, there are a number of observable symptoms and behaviors that occur in the course of the eating disorders.

Countless researchers have outlined the symptomology of anorexia and bulimia nervosa. A comprehensive review of the medical complications of the disorders: endocrine, metabolic, cardiovascular, pulmonary, renal, neurological, hematologic, and musculocutaneous, is found in Hsu (1990) and elsewhere. Here we provide but a brief description of the physical signs. (The psychological aspects will be discussed in later sections on cognitive distortions and on personality factors in the etiology of eating disorders.)

The primary symptom of anorexia appears to be restriction of food intake, use of laxatives or other purgatives, and excessive exercise. Most patients claim they eat enough, but closer scrutiny reveals they deliberately avoid foods, especially carbohydrates (although they may be unduly interested in cooking food for others, reading recipes, etc.). The resulting striking loss of
weight may be accompanied by other physical changes, the most prominent of which is secondary amenorrhoea (younger patients may never have menstruated). Skin is often dry and pale in appearance. Languno (fine body hair) is frequently found, particularly on the trunk and limbs. Approximately 50% of patients may have cold and cyanotic (bluish) peripheries, dependent edema, Bradycardia, and hypotension. Anorectics often suffer from gastrointestinal problems, constipation, and insomnia. Prolonged anorexia nervosa may lead to osteoporosis and impaired reproduction (Palla & Litt, 1988).

The primary symptoms of bulimia are uncontrollable, usually secretive, overeating over a short period of time. This binge eating is often followed by the irresistible urge to purge using self-induced vomiting and/or the use of laxatives and diuretics. These behaviors result in dehydration and fluid shifts, electrolyte imbalance, hypoglycemic symptoms, malnutrition-related problems, gastrointestinal difficulties, and insomnia (Goode, 1985). The bulimic patient may display swelling of the salivary (particularly the parotid) glands due to inflammation caused by the binge eating, vomiting, and perhaps excessive gum chewing; dental erosion; and callouses on the back of the dominant hand caused by repeated abrasion of the skin by the teeth while inducing vomiting (Russell, 1979). Petechial hemorrhages may be seen on the cornea and the face. Chronic
use of the purgative syrup of ipecac may cause generalized muscle pain and tenderness (Hsu, 1990). The specific diagnostic criteria for anorexia nervosa and bulimia nervosa can be found in the DSM-III-R (American Psychiatric Association, 1987).

The Psychological Effects of Semistarvation

A classical study of the mental and physical effects of semistarvation (Keys, Brozek, Henschel, Mickelson & Taylor, 1950) demonstrated that it can result in severe changes of affective state. The subjects in this study from the University of Minnesota were 34 normal-weight young men, all of whom were psychologically healthy. After they had lost 25% of their body weight, the men showed highly significant increases in hypochondriasis, depression, and hysteria. Additionally, they reported being tormented with incessant thoughts of food. Although they were originally quite gregarious, they became progressively more withdrawn and isolated, and their social contacts with women declined sharply.

The Minnesota study showed that semistarvation fostered bulimic behaviors even in psychologically normal people with high ego strength: It predisposed subjects to binge, to lose control of eating, and having done so, to purge. Even when the starvation period was over and they entered the refeeding period, subjects' predisposition to binge became an uncontrollable reality: All the subjects showed a loss
of control of appetite; they gorged themselves and sometimes vomited.

Depression in bulimics. It has long been asserted that depression (and other psychological mood states) is a correlate of bulimia, but whether this is a cause of the bulimia or a result of bulimic behavior is a matter of contention among many researchers. According to Leung and Steiger (1991), there are three alternative causal hypotheses concerning the relationship between mood and eating disturbances: (1) mood disturbances in eating disorders are consequences of eating abnormalities; (2) eating abnormalities are consequences of underlying mood disturbances; (3) mood and eating disturbances are not causally related but are both effects of some other set of common causes or "third variables" (either genetic or psychosocial factors). They compared cross-lagged correlations from mood to eating pathology and from eating to mood disturbance. Their findings indicated no predominant causal sequence between depressive symptoms and eating abnormalities, and pointed to the possibility that a third variable might have increased vulnerability to both eating disorders and affective disturbances, thereby producing an association between eating pathology and depression.

Evidence for the argument that anorexia nervosa and bulimia nervosa are variants of affective disorders has been
drawn from clinical phenomenology, neuroendocrine similarities, family studies, and the response of eating disorder patients to antidepressant medications. However, in a critical evaluation of these studies, Strober and Katz (1987) indicated that the relationship between the eating disorders and affective disorders, including depression, is complex and cannot be described in terms of simple models. Hsu (1990) asserted that approximately 20% of anorectics and 40% of bulimics meet the diagnostic criteria for major depression, but he acknowledges that it is unclear whether the depressive symptoms are primary or secondary to the eating disorders.

Cooper and Fairburn (1986) compared patients with bulimia nervosa and nonbulimic depressed patients. The bulimic patients could be distinguished from patients with depressive disorder partly on the basis of a higher frequency of anxiety symptoms in the bulimics. These investigators found that the depressive symptoms more frequently reported by patients with bulimia nervosa were related most commonly and directly to their eating problems, their pathological guilt was specifically guilt about their disturbed eating patterns, and their feelings of despair and hopelessness was almost invariably derived from their despair about their inability to overcome the eating disorder.
In a conceptually similar study, Steere, Butler, and Cooper (1990) compared the mental state profile of patients with bulimia nervosa and patients suffering from generalized anxiety disorder on whom the same assessments had been conducted. They found that a higher frequency of depressive symptoms distinguished bulimics from patients with an anxiety disorder. These researchers suggested that bulimia nervosa is a disorder in which there is considerable associated mood disturbance, but in which neither anxiety nor depression predominate. However, even though the investigators contended that depression and anxiety are largely secondary features of bulimia, they may play an important role in maintaining the disorder once it has been established. Thus, in some bulimics patients antidepressant medication may have some usefulness in breaking the binge/purge cycle.

Noting that metabolic and endocrine signs of starvation can be found not only in severely underweight anorectics but also in normal weight patients suffering from bulimia, Laessle, Schweiger, and Pirke (1988) studied the relationship between depressive symptoms and starvation—reflected by body weight and biochemical parameters—of 64 anorectic and bulimic patients. Multiple regression analysis revealed significant effects of body weight and beta-hydroxybutyric acid, respectively, on specific depressed or dysphoric mood. They concluded that not only
weight loss, but also weight-independent biological abnormalities due to malnutrition were related to depression.

In a study to examine whether emotionality and/or insensitivity to internal state may be associated with bulimia, Elmore and de Castro (1990) compared self-rated moods and hunger in association with eating in bulimics, recovered bulimics, and normal controls. They found that in their subjects, binge eating occurred when anxiety is relatively high, resulting in a lowering of anxiety but an increase in depression, suggesting that binge eating may serve as a way to relieve anxiety but may result in an associated increase in guilt and depression.

Experiential Considerations of Bulimic Episodes

Diagnostic definitions and descriptions of affective states are important for the purposes of scientific clarity, but they cannot communicate how the symptoms of an eating disorder are really experienced. Gordon (1990, pp. 24-25) provided the following graphic description of a bulimic episode:

It would start building in the late morning. By noon I'd know I had to binge. I would go out...to the supermarket down the block, and buy a gallon, or maybe even two gallons of maple walnut ice cream and a couple of packages of fudge-brownie mix...On the way home, the urge to binge would get stronger and stronger. I
could hardly drive my car because I couldn't think about anything but food. There was a doughnut shop that I passed on the way home. Almost always I'd stop the car, buy a dozen doughnuts and start munching on them even before I was walking out the door. On the way home I invariably finished all twelve doughnuts...I'd hurry up to the apartment with the urge for more binging growing stronger by the minute...I'd hastily mix up the brownie mix and get the brownies in the oven, usually managing to eat a fair amount of the mix myself as I was going along. Then, while they were still cooking, I ate the ice cream. Only by constantly eating the ice cream could I bear the delay until the brownies came out of the oven. Sometimes I'd finish the whole gallon even before the brownies were done, and I'd take the brownies out of the oven while they were still baking. At any rate, I'd start eating brownies, even though by this time I was feeling sick, intending to stop after two or three. Then it would be five or six. Pretty soon, I'd have put away fifteen or twenty of the brownies, and then I'd be overcome with embarrassment. What if one of my roommates were to get home and see that I had eaten twenty brownies! The only way to disguise it, obviously, was to finish the other fifty-two brownies myself, wash the pan, and clean everything
up...Seventy two brownies later, the depression hit. I'd go to the bathroom, stick my finger down my throat, and make myself throw up. I was so good at it that it was almost automatic—no effort necessary, just instant vomiting, over and over until there was nothing coming out of my stomach except clear pale-green fluid.

According to Hsu (1990) only a minority of patients actually enjoy the purge following a binge. Most, perhaps 80%, describe it as necessary for getting rid of calories (i.e., to relieve themselves of the anxiety regarding weight gain). The rest may feel that the purging itself can relieve them of tension, guilt, and dysphoria. They may describe the fatigue after the purge as relaxing (about one-third fall asleep after an episode).

A bulimic binge can range in calories from 3,500 to as much as 20,000. Binge eating has been known to occur daily, from one to as many as 12 times a day, usually in the afternoon, and generally when the bulimic is home alone (Goode, 1985).

Precipitants of a bulimic episode. Several researchers believe that the immediate precipitants of a particular binge, based on the recollection of bulimic patients, can generally be divided into three categories: emotional (depending on dysphoric state), social or situational (depending on where the person is and with whom), and
physiological (depending on feelings related to food and hunger).

Lacey (1985) contended that individual bulimic attacks are triggered by three distinct conditions: a deficient emotional state—such as loneliness, boredom, depression, or unstructured time in the evening—when the bulimia acts as a stimulant; an aroused emotional state—such as anger or guilt—in which the bulimia acts as a sedative; food acts as a physical stimulus, so that small amounts of food "illicitly" eaten when the bulimic is dieting trigger a bulimic episode.

Hsu (1990) identified longer-term antecedents for a binge including: prolonged dieting leading to feelings of hunger and deprivation; and prolonged negative affective states such as dysphoria, a sense of failure, self-critical thoughts, anxiety, or frustration in relation to outside stress for which the individual has few coping skills.

Garner, Rockert, Olmsted, Johnson, and Cosicina (1985) claimed that bulimic episodes have been observed in approximately 50% of anorectics. It has been speculated that at some point the anorectic, finally unable to maintain rigid control over her eating, will give in to her intense desire for food and gorge herself, devouring huge amounts of food in the process. Subsequently, she will vomit and therefore maintain low weight. Thus, in time she may change the face of her eating disorder without consciously
intending to do so. That is, the anorectic may, at least in her own mind, leave the ranks of the "admired" anorectic group. Among others, Ruderman & Grace (1988) found that unlike bulimics, restrained eaters perceive themselves as morally virtuous. Bruch (1978), as well as Gordon, (1990) claimed that an anorectic's ability to control their eating to the point of eating nothing at all is implicitly exalted (as is their svelte new figure). Once the anorectic gets caught up in the binge/purge cycle, she joins with the more "pedestrian" bulimic group, whose binge-and-purge behavior is frequently satirized by the media (Gordon, 1990 commented that one Saturday Night Live skit was entitled, "She wants to eat her cake and heave it too!").

Anorexia and bulimia can easily become a chronic pattern, and the longer an individual maintains it, the more difficult it becomes to dislodge, as the behavior may become "locked in" or sustained autonomously by physiological factors once it has become habitual. The binge/purge cycle may upset the normal equilibrium of hunger and satiety mechanisms, increasing the intensity of both binges and purges. This, in addition to the immediate reinforcing effects of relieving undesirable emotional states, may trigger "addiction" to binge eating and purging (Hsu, 1990).

Cognitive Characteristics of Bulimics

As mentioned earlier, persons with bulimia nervosa often have marked depressive symptoms (Russell, 1979; Cooper
& Fairburn, 1987). According to Dritschel, Williams, and Cooper (1991) in their study of the cognitive distortions among women experiencing bulimic episodes, it has frequently been noted that the thinking style of individuals with eating disorders is characterized by cognitive distortions similar to those identified in the negative styles of thinking in depressed persons. Thus, it has been suggested that the so-called depressogenic styles of processing are present in people with eating disorders, but that the content of thought concerns the specific psychopathology of these disorders, that is, the expression of distorted ideas about food and eating, and about shape and weight (discussed in the section on body-image disturbance below). Dritschel and her colleagues devised a self-report questionnaire to assess these cognitive distortions. They found that the group experiencing bulimic episodes did indeed differ from controls in terms of the extent of the personalization, catastrophization, overgeneralization, and selective abstraction in relation to themes concerning food, eating, shape, and weight.

In another study of the typical thought content of bulimics, Brouwers (1988) compared overall depression scores on the Beck Depression Inventory (Beck, 1978) between women with bulimia and a control group. Results indicated that bulimics are more depressed than are controls and have distorted thoughts regarding body image, self-blame, somatic
preoccupation, guilt, and suicidal ideation, perhaps exacerbated by the college environment's emphasis on competition, perfection, motivation, and attractiveness. Brouwers pointed to the bulimics' "all-or-nothing" style of thinking (Lacey, 1982; Russell, 1979) as a reason for the chronic indecision she found pervading the bulimics' thoughts.

Bauer and Anderson (1989) agreed that bulimics share a common pattern of irrational thoughts or beliefs. These researchers collected nine key constructs that make up the core of these beliefs, the most prevalent of which are the bulimic's conviction that: being or becoming overweight is the worst thing that can happen to a her; certain foods are good foods, other foods are bad foods; she must have control over all her actions to feel safe; she must do everything perfectly or what she does is worthless.

In 1988, Butterfield and Leclair contrasted specific coping styles, attitudes, and irrational beliefs among three groups of women: bulimics, drug abusers, and a normative comparison group. The substance abusers were found to be more irrational than the comparison group, and were moodier and more socially alienated. In general, the drug-abusing group members were more introversive, perfectionistic, and subject to recent stress. The bulimics were sensitive and moody, put considerable importance on others' approval, tended to denigrate themselves, and were under a lot of
self-imposed pressure and chronic tension (perhaps partially fueled by their irrational beliefs). Both the bulimics and the drug abusers felt helpless and unsupported by others, and shared a negative view of the world and a bleak outlook for the future. By contrast, the normative comparison group appeared confident, sociable, and optimistic.

Zotter and Crowther (1991) employed in vivo thought sampling to investigate the role of cognitions in bulimia nervosa. This study (which was discussed at length in the preceding chapter on thought sampling) found that bulimics were more likely than nonbulimics and repetitive dieters to report greater proportions of eating- and weight-related thoughts; these were more likely to be distorted thoughts.

**Body-image disturbance.** Hilde Bruch (1962) was the first to suggest that there was a disturbance of body image in anorexia. This concept can broadly be understood as a person having a perceptual overestimation of her actual body size or a disparaging attitude towards her body. It has been widely believed that both anorectics and bulimics exhibit body-image disturbance. However, Bell, Kirkpatrick, and Rinn (1986), among others, asserted that the disturbance of body image is not a clear phenomenon. After a review of the literature on distortion of body image, Cash and Brown (1987) also acknowledged the persistent problem of a lack of clarification of the body-image construct, and proposed a number of recommendations toward the goal of better
understanding the role of body-image parameters in the eating disorders: Use both perceptual and cognitive/affective measures; report characteristics better and examine individual-difference variables; report methodology better; improve data analysis; and integrate body image into the treatment of eating disorders.

Hsu and Sobkiewicz (1991) reviewed the findings of 19 studies published between 1983 and 1988 and concluded that in general, eating disorder patients overestimate their bodily dimensions more often than do normal controls, and are usually more disparaging toward their body. However, these researchers contended that it is unnecessary or unwarranted to explain these research findings in terms of "body-image disturbance" rather than fear of fatness, pursuit of thinness, or weight phobia, and argue for the deletion of disturbance of body image from the DSM-III-R (American Psychiatric Association, 1987) and subsequent diagnostic criteria.

Prevalence

The American Psychiatric Association in DSM-III-R (American Psychiatric Association, 1987) reported the prevalence of anorexia to be from 1 in 800 to as many as 1 in 100 females between the ages of 12 and 18, and estimated that 4.5% of females and 0.4% of males among college freshmen have a history of bulimia. Gordon (1990) stated
that bulimia is probably between five and ten times as prevalent as anorexia. Both are among the few mental disorders to be considered life-threatening. Various statistics have been published for the mortality rates of anorexia nervosa patients. Farley (1986) reported that they have been estimated at between 15% and 21%; DSM-III-R (American Psychiatric Association, 1987) stated that follow-up studies indicated mortality rates of between 5% and 18%; the American Medical Association (1989) reported that 5% to 10% of patients treated for anorexia nervosa later die from starvation or suicide.

As Farley pointed out, although the number of deaths directly due to anorexia and bulimia is not known, it is clear that those numbers may be increasing due to the misuse of the purgative ipecac— an over-the-counter drug— to induce vomiting; ipecac ingested in excess causes irreversible damage to the heart. (For example, doctors concluded that misuse of ipecac was responsible for vocalist Karen Carpenter's death in 1983.) Even so, an estimated 150,000 anorectics and two million bulimics use ipecac to induce vomiting, even though it is widely known that prolonged use of diuretics and laxatives exacerbates health problems.

Etiology

There is no strong consensus on a clear-cut etiology of the eating disorders; undoubtedly, many different factors
contribute to the development and maintenance of these complex illnesses in a given individual. However, they can broadly be viewed as disorders with multiple dispositions that result in a particular individual's being at risk. These predispositions may be arbitrarily (and somewhat artificially) thought to occur in the individual, her family, or in her larger cultural world.

It is widely believed that "normal" adolescent (and adult) dieting--mostly by females, as males are relatively less bothered by fatness--to conform to the prevailing standards of appearance provides an entrée into an eating disorder (Gordon, 1990; Hsu, 1990), especially if there are other risk factors. Given that this might be so, the larger question is: Why do some such dieters develop an eating disorder while others do not, or why do some develop anorexia nervosa while others develop bulimia nervosa? This question has yet to be answered, but Hsu (1990) and Leung and Steiger (1991), among others, believe that the triggering of an eating disorder by dieting must be moderated by other factors.

The precipitation of the eating disorders can be seen as the cumulative effect of multiple factors in three areas of an individual's life: sociocultural contributions, including the family environment; biological factors; and personality factors.
Sociocultural Factors

Eating disorders are often held to be primarily cultural phenomena that result from an impossible conflict between cultural demands and biological drives (Wooley & Wooley, 1985). Sociocultural contributions to the development of eating disorders occur as both males and females are socialized by the society in which they live, and by their families. The messages each sex receives during the socialization process determines how they think, feel, treat others, and expect to be treated by others. The socialization process even dictates the appropriate physical appearance for each sex. Women, especially, are rendered vulnerable to eating disorders as a result of the socialization process and the norms of the culture.

Eating disorders as ethnic disorders. Gordon (1990) believed the eating disorders are "ethnic disorders." He based this view on a set of concepts formulated in 1955 by psychoanalyst and anthropologist, George Devereux, on the complex relationship between culture and psychopathology. Devereux's theory purportedly explains how certain disorders, such as hysteria in the nineteenth century, become a core expression of the stresses and tensions of a particular culture or historical period. These so-called "culture-bound syndromes" include the likes of Amok, which occurred mainly in Southeast Asia. Amok is a pattern of explosive madness that produces indiscriminate homicidal
violence—hence the phrase "running amok"—supposedly the response to a culture that demands a high degree of control over aggression and deference to authority, in an atmosphere of linguistic and cognitive ambiguity and vague, abstract communication.

A second example of an ethnic disorder is koro, the "shrinking-penis syndrome," found typically in men living primarily in coastal southern China and other areas of the far east. The symptom is a delusion that the penis is receding into the abdomen, and is accompanied by feelings of panic and anxiety about impending death. The cultural origins of koro are said to be sexual anxieties centering around the masculine sense of potency in a culture that holds archaic beliefs about the fatal consequences of genital retraction.

Gordon asserted that koro has some interesting parallels to the eating disorders in that both disorders involve an unwanted bodily transformation—one of an undesirable shrinking, the other of an undesirable expansion—that lower the person's standing in terms of their particular culture's expectations.

Gordon contended that cultural confusion about the new female role as a result of the recent shift to a new emphasis on females' achievement and performance—including the so-called "superwoman syndrome"—has created a new identity crisis for the developing woman. When females'
attempts to deal with this developmental crisis take the form of an eating disorder, it is primarily the expression of an ethnic disorder. The superwoman is expected to be confident, achieving, and ambitious, yet pleasingly feminine, sexual, and nurturing, and it has been shown that the females who identified with the ideology of the superwoman were the very ones who were likely to suffer from eating disorders (Gordon, 1990).

However, it should not be thought that bulimia is restricted to the high-achieving high-school or college student, or to the professional or managerial woman. Bulimia cuts more along social-class lines than anorexia, and has become a more ubiquitous expression for a host of psychological problems (Hsu, 1990).

According to Gordon (1990), in spite of the increased demands on women in society, there exists at the same time a persistent devaluation of femininity and also a devaluation of the female role of nurturance (and of nurturance in general: Consider that we pay more to those who mind our money than we do to those who mind, educate, and nurse our children!) Thus, the transition to a new female identity in our culture has created the same tensions and stresses that contribute to other ethnic disorders. These stresses have left many women vulnerable to developing eating disorders as they obsessively focus on the achievement of thinness in order to solve the problems of personal identity; in short,
this relatively new collection of eating disorders are the 
ethnic disorders of our times.

Certainly, contemporary studies almost uniformly show 
that the ratio of female to male sufferers from eating 
disorders is at least nine to one, perhaps higher. This 
overwhelming preponderance of female sufferers gives the 
eating disorders the dubious distinction of having the most 
lopsided sex ratio of any disorder known to psychiatry, even 
exceeding that of other strongly gender-linked conditions 
such as agoraphobia. This extremely skewed sexual incidence 
of the eating disorders plays a central role in Gordon's 
(1990) sociocultural interpretation.

Sociocultural factors peculiar to women. Schwartz and 
Barrett (1987) reported the results of a six-year study of 
eating disordered clients, their families, and their 
sociocultural contexts. They have identified three 
sociocultural factors thought to influence the development 
of anorexia and bulimia in women. First, women historically 
have occupied a subordinate position in society. This has 
taught women to expect and be satisfied with limited control 
over their own lives and the lives of others. Anorexia and 
bulimia may be seen as an indirect method of gaining control 
and power while remaining subordinate.

The second sociocultural factor Schwartz and Barrett 
identified is the expectation that women be the nurturers 
and caretakers of society. Women are enjoined to care for
the physical and emotional wants of others while sacrificing their own needs. Anorexia and bulimia enable them to deny their own needs while caring for others.

The third sociocultural factor the investigators identified is the pressure placed on women to be physically attractive and thin (the idealization of the feminine body). Women learn that success in work and intimate relationships depends on an attractive appearance, and that an attractive appearance is synonymous with being slender. Wooley and Wooley (1985) noted that Ambrose Bierce (1911/1958) was speaking for the entire culture when he wrote:

To men a man is but a mind.
Who cares what face he carries?
Or what form he wears?

But woman's body is the woman. (Italics mine.)

This may be questionable poetic form but its message to women is irrefutable: Shape up or be nobody.

"Thinness" is a relative concept that may change capriciously. For instance, the "ideal" body for women of the 1980s was considerably more slender than the ideal body of the 1960s (Brumberg, 1988). With the arrival in the 1960s of slender models such as Twiggy and Jean Shrimpton, the standard of fashion became ever more androgynous or "tubular" (Gordon, 1989). In a landmark study of body shape (Garner, Garfinkel, Schwartz, Thompson, 1980), the authors found that the weight of the Playboy centerfold models (in
itself the depiction of an unattainable goal for most women) decreased from 91% of the national female average weight in the late 1960s to 83% of average in the late 1970s.

It has become increasingly difficult for women to maintain the weight (or more accurately, the lack of weight) necessary to measure up to the current standards of appropriate physical appearance. Among females, especially, the drive for thinness continues today; ironically, some evidence suggests that the standards of weight to which women hold themselves are even more stringent than the degree of thinness that men in fact find attractive (Fallon & Rozin, 1985).

Attaining the ideal body may loom as such a formidable obstacle to some female adolescents that they may attempt to retard their entry into the adult female world. To this end, some may resort to self-starvation, according to Crisp (1982), who has noted that the onset of puberty and its resulting womanly curves occurs only when a certain amount of body fat is attained. On the other hand, the bulimic woman, unwilling to starve to achieve the ideal body proportions, may binge eat and then purge to avoid gaining the dreaded fat. Vomiting may itself regulate her affect and impulse, or she may force the issue; either way, her behavior serves to perpetuate the binge/purge cycle (Hsu, 1990).
It is interesting to note that despite the prevailing standards of thinness, socioeconomic considerations have a stronger effect on the incidence of bulimia and/or anorexia, which is rarely found even in this culture when access to food is limited by financial resources. Perhaps that is why the eating disorders are less prevalent among black women and women from other disadvantaged minority groups (Gray, Ford, & Kelly, 1987).

**Family factors.** Disturbed family interaction is likely to be more common in families with eating-disordered members than in normal families, and it is thought that such disturbances are more overt in bulimics' families than in those of restrictive anorectics. The older literature on family factors in the eating disorders generally described the mothers of anorectics as overprotective, intrusive, and dominating, and the fathers as distant and passive. (So-called "refrigerator mothers" were at one time considered to be the primary cause of schizophrenia, autism, and a host of other serious disorders; Gordon (1990) noted that "mother-bashing" was then in vogue.)

The main point of the research in the late 1970s was that families with eating disordered members have certain characteristics. Minuchin, Rosman, and Baker (1978) have noted that certain transactional patterns are characteristic of so-called "psychosomatic families." This provided an important conceptualization of the psychosomatic aspects of
diabetes and anorexia found in these psychosomatic families. According to Sargent, Liebman, & Silver (1985), Minuchin and others found five predominant characteristics of family interaction to be excessively present and detrimental to overall family functioning: enmeshment, overprotectiveness, rigidity, lack of conflict resolution, and involvement of a sick child in the unresolved conflicts of the parents. Schwartz (1987) reported that the profile of bulimic females resembles Minuchin's psychosomatic families.

Root, Fallon, and Friedrich (1986) conceptualized three family types that contribute to the development of bulimia nervosa: The perfect family, the overprotective family, and the chaotic family. The perfect family emphasizes appearances, family reputation, family identity, and achievement. In the overprotective family (which most resembles Minuchin's psychosomatic family), members lack confidence in the symptomatic member's competence, the family lacks rules of age-appropriate behavior in the family, and has unresolved family-of-origin issues, often related to victimization experiences of the mother. According to Root et al, the chaotic-type family, especially, has been observed in bulimia cases, yet has not been described in the literature of eating disorders. Chaotic families resemble substance-abusing families, in that children in these families learn not to trust or feel
or talk. This type of family has inconsistent rather than rigid rules, parents are unavailable, anger is frequently expressed, and substance abuse is common.

According to Gordon (1990), researchers have noted that most bulimics have experienced some form of significant emotional deprivation in their early life, often the temporary or chronic absence of a parental figure, which causes the child to turn for solace to food to fill the void. Additionally, Gordon believed that bulimics tend to have an intensely ambivalent relationship with their father, which renders them overly sensitive to male criticism and rejection; their relationships with men are often turbulent as a result. When they are unable to work out a satisfactory solution to the problem of integrating ambition and a need to be powerful with an identity based on pleasing, compliance, and unassertiveness, they turn to thinness in an attempt to forge an identity that is powerful, competent, and in control, but on the other hand is nurturing, submissive, and pleasing to men. All too often, the attempt fails.

Pike and Rodin (1991) examined features of mothers' attitudes and behavior relating to disordered eating among their adolescent daughters. Mothers whose daughters reported disordered eating were more dissatisfied with the general functioning of the family system, were themselves more likely to have an eating disorder, thought their
daughters should lose more weight, and thought their daughters were less attractive than did mothers of girls who were not eating disordered.

After reviewing several studies on the subject, Gordon (1990) asserted that eating disorders run in families for several reasons. Ambiguities regarding sex-roles and female achievement within the family contributed to the aspiration for thinness, as well as disordered eating. Hsu reported that the more a person remembered her father doubting her intellectual competence, the more she wanted to achieve a slender body. In general, bulimics more frequently than others recalled that their parents believed that: a woman's place was in the home; their mothers were dissatisfied with their own careers; the father had a disparaging view of the mother's intelligence; and the father compared his daughter's intelligence with a male sibling. Thus, negative biases about female intellectual competence, already pervasive in the wider culture, are amplified by familial attitudes.

Johnson and Flach (1985) used the Family Environment Scale (FES) to study various social and family variables as they applied to bulimics. They found that bulimic patients perceived their families to be less cohesive; less open in their expression of feelings; more conflictual; less encouraging of independence and assertiveness; less involved in intellectual, cultural, or recreational activities
(although sharing high achievement expectations); and less concerned with moral and religious issues.

Family environment in bulimia was assessed by Blouin, Zuro and Blouin (1990), also using the FES. They confirmed other researchers' findings in concluding that overall, bulimic women perceived their families as more distressed than controls, that is, they had negative perceptions of family functioning. They judged their families as being less cohesive, less independent, more achievement-oriented, less expressive, and less involved in recreational pursuits. However, these differences were specific to the subgroup of bulimics who were depressed; nondepressed bulimics did not perceive their families differently from controls, with the exception of finding their families to be more achievement-oriented.

Using a different measure, the Structural Analysis of Social Behavior (SASB), Humphrey (1987) studied the intact families of bulimic anorectics. Results indicated that their families were more belittling, appeasing, ignoring, and walling-off, as well as less helping, trusting, nurturing, and approaching than the families of their nondistressed counterparts. Humphrey found that the families of restrictive anorectics perceived their families as more affectionate than the bulimics, and concluded that the families of bulimics are more hostilely enmeshed and neglectful, while those of the anorectics are "pseudo-
mutual." Schwartz and Barrett (1988) found that the conflicts in families of anorectics were covert, as opposed to the overt conflicts in bulimics' families.

Precipitating events. Bruch (1973) reported that most of her eating-disordered patients could recall the event that made them feel too fat and convinced them of the urgent need to lose weight. Hsu (1990) has summarized the precipitating factors that led to the development of the eating disorders. In general, such factors are related to being teased for being fat; sexual and other interpersonal conflicts; separation from family; personal illness or failure; and family difficulties such as death, illness, or marital problems. However, because these recollections of precipitating factors are necessarily retrospective (and collected in the absence of a standardized interview, at the very least), they are likely to be biased by the investigator's perspective.

Researchers in a relatively new area of research in the eating disorders have found evidence that physical and sexual abuse may contribute to their development (Oppenheimer, Howells, Palmer, & Chaloner, 1983). Early or recent sexual trauma has been postulated as a significant precipitating event by other researchers, but according to Finn, Hartman, Leon, & Larson, (1986), its occurrence is apparently no more frequent among individuals with eating disorders than among those in therapy for other reasons.
(Of course, this might indicate only that sexual trauma precipitates a variety of mental disorders.)

**Biological Factors**

A variety of disturbances in the endocrine system and higher brain functioning has been demonstrated in persons afflicted with eating disorders. Farley (1986) reported studies finding that the neurotransmitter serotonin is linked to both mood and eating functions, and that decreased serotonin activity has been linked to compulsive behavior (a behavior noted to occur in the eating disorders). Malfunctioning of the hypothalamus, a part of the brain that controls such bodily functions as hormone secretions, temperature and water balance, and sugar and fat metabolism, has been known to cause anorexia. Also, endorphin hormones, which are released during purging and excessive exercise (e.g., "jogger's high"), are believed to be addictive. Research has shown that neuroendocrine abnormalities exist in normal weight bulimic women without endogenous depression and provide further evidence for a neuroendocrine component to this illness (Levy, Dixon, & Malarkey, 1988). The August, 1989, issue of the *Journal of American Psychiatry*, was the first journal to summarize studies involving neurochemical changes linked with anorexia and bulimia nervosa.

Hsu (1990) asserted that in anorexia nervosa and bulimia nervosa, there is a delayed gastric emptying of
solid foods, and perhaps also of liquids—commonly reported as abdominal fullness and distension even after a small meal. Although the reason for this delay is unclear, he speculated that it may be linked to a disturbance in neurohormonal controls.

The issue of a genetic component in eating disorders is the subject of much research, because it has been found that the families of anorectics and bulimics appear to show a higher than expected occurrence of eating disorders and substance abuse disorders (Kog & Vandereycken, 1989). However, Hsu (1990) noted that there have been no published twin studies of bulimics. Thus, genetic and biological bases for eating disorders should not necessarily be considered causal, since the disorders may be shaped by a common environmental pathogenesis.

Family studies have found a preponderance of major affective illnesses and eating disorders in first- and second-degree relatives. Research has indicated that when affective disorders and alcoholism are highly prevalent among first-degree relatives of bulimics, a trial of antidepressant medication may be beneficial to the bulimic patient.

Biological studies have found, in general, that the identified neuroendocrine and metabolic disturbances are secondary to the eating disorders (Hsu, 1990). For example, the extreme peaks and valleys of blood glucose levels that
are intrinsic to the bulimic's experience can be seen as isomorphic to and contributing to the bulimic's emotional lability (Schwartz, Barrett, & Saba, 1985).

**Personality Factors**

Researchers have found that some general personality characteristics may play a role in the onset of eating disorders. Garner, Rockert, et al (1985) have reviewed the literature and have concluded that several observations have emerged repeatedly. Anorectic individuals have been found to be obsessional, introverted, socially anxious, conscientious, perfectionistic, competitive, overcontrolled, socially dependent, shy, and "neurotic." Bulimics have been found to be impulsive, prone to addictive behaviors, emotionally turbulent, and depressed. Gordon (1990) agreed that bulimics exhibit affective instability and poor impulse control, and he noted that bulimic's relationships with others tend to be intensely dependent and emotionally stormy.

Swift and Wonderlich (1988) delineated the possible relationships between personality and psychopathology: Personality may provide a predisposition to the development of an eating disorder; personality may modify the expression of the disorder; personality factors may be complications of the disorder; and personality attributes may be simply subclinical forms of actual psychiatric disorders.
Gordon (1990) asserted that there are some typical personality features that are encountered in a large number of bulimics. One of the most common is the "false-self" or "pseudo-independent" personality organization. The false-self personality is well-functioning and well-appearing on the surface, but under the competent facade, she is troubled by profound feelings of neediness, dependency, and low self-esteem.

Wonderlich, Swift, Slotnick and Goodman (1990) interviewed 46 eating-disordered individuals with the Structured Clinical Interview for DSM-III-R Personality Disorders (SCID-II) to assess the prevalence of personality disorders in individuals with anorexia and bulimia. They found that obsessive-compulsive personality disorder was common in restricting anorectics but not in bulimic anorectics. Normal-weight bulimia was associated with histrionic personality disorder. Self-reported depression was highest in individuals meeting criteria for borderline and dependent personality disorder; however, the bulimics did not show a greater prevalence of borderline personality disorder than did the anorectics.

Personality characteristics of eating-disordered women were also investigated by Lenihan and Kirk (1990). The Hand Test was administered to 34 eating-disordered individuals and 26 controls to determine discriminating projective personality features. Eating-disordered women scored higher
on response time, overall pathology, and passivity compared to controls. Tension was more prominent with the anorectics, consistent with their rigid control. The bulimics gave more passive responses than did controls and anorectics, which the authors conclude may represent a more basic personality characteristic.

In a study to assess the relationship between bulimia and pathological personality traits, Tisdale and Pendleton (1990) administered the Millon Clinical Multiaxial Inventory (MCMI) to 37 female bulimics, 32 female general psychiatric outpatients, and 30 female controls. Bulimic women scored higher than the other two groups on the Schizoid, Avoidant, and Dependent scales. They scored lower than the other two groups on the Antisocial scale. The researchers concluded that MCMI elevations among the bulimic group illuminate a complex interplay of personality variables reflecting a strong conflict over autonomy, and that avoidant characteristics appear to collide with strong needs for nurturance reflected in the bulimic's dependent stance.

Carney, Yates & Cizadlo (1990) conducted a study to determine if abnormal personality profiles were familial in bulimia nervosa. Bulimic subjects scored significantly higher than controls on nearly all categories on the Personality Diagnosis Questionnaire (PDQ-R), an inventory assessing 11 personality categories as defined by DSM-III-R (American Psychiatric Association, 1987). Bulimic families
as a whole, however, showed few abnormal traits compared to control families. The researchers suggested that personality traits seen in bulimics are not familial risk-factors, but rather may be a consequence of bulimia nervosa and concurrent alcohol abuse and depression. Thus, they concluded that any single personality profile for "the bulimic family" is unwarranted.

Although typical personality characteristics have been noted in most, if not all, persons afflicted with eating disorders, Goode (1985) cautions against drawing conclusions based on such variables, as it may be difficult to determine whether the behaviors observed in these individuals is primary or secondary to the eating disorders. Indeed, as discussed in the earlier section on the psychological effects of semistarvation, some behaviors, such as self-induced starvation are direct manifestations of the illness, whereas other behaviors, such as mental preoccupation with food, result from physiological responses to starvation (Leon, 1983; Andersen, 1987; Hsu, 1990).

In addition to personality factors per se, there are other common aspects among those afflicted with eating disorders. Both anorectic and bulimic individuals, as discussed earlier, appear to experience cognitive distortions, including self-concept deficits and body image disturbance. These may act as contributory or maintaining factors in eating disorders.
In summary, there appears to be a growing consensus that there is no simple personality structure characteristic of either anorexia and bulimia. Evidence supports the view that the eating disorders are multidetermined and multidimensional syndromes; they develop in different people at different times for different reasons. Garner, Rockert, et al (1985) noted that in some instances, bulimia may occur in the absence of primary psychological disturbance. However, we can be sure of one thing: The emotional consequences of chaotic eating patterns and the often dangerous attempts to compensate for the subsequent loss of control have a profound impact on the individual.
Chapter 3

Method

Subjects

There were five bulimic subjects and two nonbulimic subjects in the study. All had volunteered following requests made to UNLV psychology courses, the UNLV Student Academic Services Counseling Center, and the bulimic groups in the community. All individuals who had agreed to be subjects did, in fact, take part in the study. Although two subjects terminated prematurely, enough data had been collected to include them. The five bulimic subjects were all females. Two subjects were 18 years old, one was 25 years old, and the other two were 30 years old (Mean age = 24.2). Of the two nonbulimic subjects, one was a 52-year-old male, the other a 25-year-old female.

All the bulimics were students at the university. Melissa (all the names have been changed) and Monica were undergraduate students who heard about the study in introductory psychology classes. Emily was an undergraduate student who took part for one academic credit. Heather was an undergraduate student who heard about the study from her counselor at the university Counseling Center. Christine was a graduate student who heard about the study in her off-
campus bulimic support group. None of the bulimic subjects reported being on medication.

Of the nonbulimic subjects, Ted was a businessman known to the author, and Jessica, who was interested in the inner experience sampling method, was an undergraduate student who volunteered when she heard we were seeking subjects.

**Apparatus**

Subjects were provided with a pocket-sized random-interval generating beeping device that was about the size of a package of cigarettes. This beeper signalled at random intervals: no longer than one hour and no shorter than a few seconds, with the average interval being about half an hour. The beep was an audible tone (400-Hz) heard through a small portable-radio-type earphone (Hurlburt, 1980). The volume on the beeper was adjustable and the sound of the beep could be terminated by pressing a button on the top of the device.

All subjects were given a small (2 1/2" x 4 3/4") notebook in which to record their inner experience at the sound of the beep.

**Procedure**

The procedure was the so-called descriptive sampling method described by Hurlburt (1990) and elsewhere, and summarized below. All the bulimic subjects and one of the nonbulimic subjects were interviewed initially by the author and Dr. Russell Hurlburt, and the present investigator and
Dr. Hurlburt attended the debriefing sessions. Sometimes, as in the case of Emily, two other graduate students who were skilled in the sampling method were present at these sessions. Ted was debriefed by the author and another researcher in all but one debriefing session, which was attended by the author and Dr. Hurlburt.

In the initial interview, the sampling process was explained to the subject, who was then given the beeper and instructed in the mechanical workings of the device. Subjects were asked to turn on the beeper at a time when they would be able to continue to use it for five consecutive hours. At each signal, they were to record their version of the inner events they experienced at the moment of the beep. The author or Dr. Hurlburt drew an explicatory "chart" to pinpoint the exact moment we wanted the subject to "freeze" his or her inner experience so that it could be recorded properly; this chart, which is from Hurlburt (in press), is shown in Figure I below.

![Figure I](image.png)

*Figure I. Illustration of the moment of the beep.*
Subjects were advised that they could decline to discuss any information they did not wish to disclose, but were asked to notify us if such material were being omitted.

A debriefing meeting, where subjects were asked to describe in detail the samples they had recorded, was set up for the same day or the day immediately following the day the samples were collected. During this meeting, which usually lasted about an hour, several--sometimes all--the investigators questioned the subjects, using an open-ended technique described in Hurlburt (1990). During these debriefing discussions, subjects referred to the notes they had written in their notebooks and described as best they could their inner experience at the moments they were signalled by the beep. Usually, the first few samples subjects discussed were considered "practice" and were not recorded for the project. Subjects were reminded for future sampling to pay attention only to what was occurring in their inner experience at the moment of the beep, not what was happening before or after the signal.

The author wrote complete notes of each sample as described by the subject at debriefing sessions, asked questions when descriptions were unclear, and otherwise clarified subjects' recollections. When the author and/or Dr. Hurlburt had decided that enough representative samples had been collected, or when subjects terminated of their own accord, sampling for that subject was discontinued.
At a later date (several months later in some cases), the author transcribed the subjects' samples. Characteristics that had emerged during the debriefing sessions were organized by the author and a description of the characteristics was written. These characteristics were later reviewed for consistency with Dr. Hurlburt.
Chapter 4

Interrater Reliability

This research attempts the difficult task of securing an accurate glimpse into the thinking of other individuals so that we might compare similarities and differences of inner experience across individuals (and across populations) and thus, obtain some sense of the range of inner experiences. The word "accurate" is the key here, as the main criticism of the descriptive sampling method is that subjects' descriptions of their inner experience at the moment of the beep do not accurately reflect these moments (Monson, 1989). Indeed, there are no external criteria for evaluating a description of inner experience, making it impossible to test for accuracy.

In general, inaccuracies can occur in three areas: (1) The subject may not apprehend his or her sampled moments accurately; (2) The subject may not be an accurate reporter of his or her inner experience; (3) The observer may not accurately understand what the subject relates. This third area can be assessed--at least somewhat--by having two or more interviewers present during the debriefing sessions, then later separately rating the subject's characteristics.

In the present research, two graduate students--who had joined the author in a special class the previous semester
to learn the descriptive sampling method—attended the majorit of Emily's debriefing sessions, along with the author and Dr. Hurlburt. All took notes on Emily's descriptions of her inner experience and asked questions whenever clarification was needed.

Later, once the present researcher had transcribed the notes taken at the debriefing sessions, the characteristics of Emily's inner experience as they emerged from her descriptions of her sampled moments were established, then reviewed with Dr. Hurlburt. Copies of the transcribed descriptions were given to the two other observers, along with a list of Emily's salient characteristics; the other observers were instructed to rate the existence and strength of occurrence of the characteristic on a 0 - 5 scale, where 0 was "definitely not occurring" and 5 was "definitely occurring."

The results of the ratings are displayed in Table I on the following page. Pearson product-moment correlations were used to assess interrater reliability.

These interrater reliability coefficients ranged from 1.00 to .38, with the median being .81. There was 100% agreement on when wordless Inner Speech had taken place. The occurrence of Images also produced high coefficients. The occurrence of the other characteristics showed relatively high levels of agreement among raters, with the exception of Awareness. (The author categorized somatic
Table I

Somatically-Oriented Feelings and Congruent Bodily

Interrater Reliability by Characteristic of Inner Experience

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Observer Pair</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. 1/</td>
<td>No. 1/</td>
<td>No. 2/</td>
<td>No. 3/</td>
</tr>
<tr>
<td>Unsymbolized Thinking</td>
<td>.75</td>
<td>.78</td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td>Wordless Inner Speech</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Somatically-Oriented Feelings</td>
<td>.38</td>
<td>.82</td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td>Thought/Feelings</td>
<td>.81</td>
<td>.81</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>Drives</td>
<td>.81</td>
<td>.81</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Images</td>
<td>.95</td>
<td>.95</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td>Inner Speech</td>
<td>.89</td>
<td>.85</td>
<td>.89</td>
<td></td>
</tr>
<tr>
<td>Inner Hearing</td>
<td>1.00</td>
<td>.70</td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>Congruent Bodily Awareness</td>
<td>.43</td>
<td>.78</td>
<td>.43</td>
<td></td>
</tr>
<tr>
<td>Incongruent Bodily Awareness</td>
<td>.81</td>
<td>.84</td>
<td>.65</td>
<td></td>
</tr>
</tbody>
</table>

events reflecting an individual's current physiological state absent an emotional component as Congruent Bodily Awareness, whereas emotional somatically-manifested events were classified as Somatically-Oriented Feelings. These and the other characteristics of subjects' inner experience will be discussed in detail in the following chapters describing subjects' reports of their inner experience.) The relatively low levels of agreement on the occurrence of these two characteristics may have been due to some
confusion among raters between the "physical" aspects of these two inner events. Overall, the interrater reliability coefficients are sufficiently high that we might state with confidence that our method of characterizing subjects' sampled moments is reliable.

Since each of Emily's samples was considered to be an item, all reliabilities can be considered as item reliabilities. However, it must be noted that we are not so much concerned with the occurrence of a particular characteristic in any one sample as we are in the frequency of particular characteristics across all a subject's sampled moments. That is, we are more interested in whether, say, Unsymbolized Thinking is a frequent characteristic of Emily's inner experience, rather than whether it occurs in any one sample. Since the item reliabilities of this and other similar studies (Hebert, 1991; Schamanek, 1991) are relatively high, it follows that our judgments about the overall frequency of characteristics would be higher.
Chapter 5

Emily

Emily (not her real name), a college senior, was 30 years old at the time of sampling. Emily was recruited for the study by a fellow graduate student, also working on the sampling project, who had met her when Emily was a patient on the Eating Disorders Unit of the psychiatric hospital where the graduate student was an intern. Emily was interested in participating in the study, especially when she discovered she could earn extra credit for doing so. However, in spite of it being expressly stated that the subjects being sought for the project must be bulimic, and notwithstanding the fact that she volunteered to participate, Emily did not want anyone to know she was bulimic. Indeed, she had informed people that she was hospitalized for depression, rather than for an eating disorder. Nevertheless, Emily satisfied the DSM-IIIR criteria for bulimia, even though at the time of sampling she was no longer binge eating or purging.

Emily used the beeper for 13 days during a period of just over seven weeks. She collected a total of 56 samples, and we discussed 45 of them in detail. This chapter is based on those 45 samples.
An analysis of Emily's inner experience revealed several clearly distinguishable aspects. We will provide a brief overview of these characteristics in the next few paragraphs, then return to furnish a complete description of each of the salient features.

Several of Emily's samples (40%) contained Multiple Inner Experience, in which many simultaneous thoughts and/or feelings were featured in a single sampled moment. For the most part, with the exception of Multiple Feelings and one instance of Multiple Unsymbolized Thinking, the multiplicity of Emily's inner experience was composed of several different characteristics being experienced simultaneously. The multiply-experienced elements were perceived to be separate events, which were nonetheless all ongoing at the moment of the beep.

Feelings—25% of which were Multiple Feelings, separate simultaneous Feelings, as opposed to one complex single Feeling—were the most frequently experienced characteristic of Emily's inner experience, occurring in a large proportion (71%) of Emily's samples. Emily's Feelings possessed several properties: (1) Somatically-Oriented Feelings, which presented as bodily manifestations, giving them a certain corporeal quality. Somatically-Oriented Feelings encompassed a wide variety of emotions; (2) Thought/Feelings, which were composed of both a cognitive and an emotional component. Thought/Feelings sometimes took
the form of Needing to Do Something—a nagging sense of obligation—or of Suddenly Remembering, in which Emily experienced a startled, animated jolt that was accompanied by a somatic sensation; and (3) Drives, described by Emily as strong, driven desires.

Almost as prevalent as Feelings in Emily's inner experience was Inner Speech, a phenomenon in which she could state unequivocally that she was aware of originating the words herself in her head, although not saying them aloud. Inner Speech, often experienced as direct commands to herself, occurred in 66% of her samples.

Unsymbolized Thinking, inner experience in which a specific thought is perceived to be ongoing in the absence of words, Images, Feelings, or other symbols, also was a feature of Emily's sampled moments (36%). Her Unsymbolized Experience could be described as Unsymbolized Thinking, in which Emily could not say in what form the thought took place, even though the thought was in her awareness. Emily's Unsymbolized Thinking included Unsymbolized Thinking verging on Wordless Inner Speech, in which the thought was perceived to be verbal even in the absence of words per se, and was experienced as being more like speaking than just knowing a thought.

Visual Images, some of which involved "scanning" a series of Images, appeared in 25% of Emily's samples. Almost as often, she was conscious of a Bodily Awareness.
Congruent Bodily Awareness constituted an awareness of her current physical state, whereas Incongruent Bodily Awareness did not reflect her actual physiological condition at the time. Emily reported Inner Hearing in only one of her 45 samples.

Multiple Inner Experience

Emily reported that she was aware of many simultaneous thoughts and/or Feelings in 18 (40%) of her 45 samples. In most of these 17 samples, the Multiple Inner Experience consisted of a variety of salient characteristics. An example was provided in Sample #1. Emily was looking critically around her apartment when the beeper sounded. At the moment of the beep, she experienced the thought, "There are so many things that need to be done around here." It was as if she were talking to herself, in her own voice, with her own natural inflection. Almost simultaneously with the Inner Speech, Emily was aware of her mind "going," full of constant, random, unconnected mental activity she described as "thoughts" coming one right after another. She could not describe what form these thoughts took. Accompanying this Multiple Unsymbolized Thinking was an uncomfortable, uneasy Thought/Feeling, which Emily described as involving "conflict" and "guilt." She reported that her Thought/Feeling actually had two separate cognitive components: one involving the sense of needing to do
something, the other a sense of procrastination. Emily described experiencing an emotional aspect in relation to the needing to do something and the sense of procrastination in the form of tension, which she tentatively located in her upper body and chest (although she could not state unequivocally that she experienced the tension in her body at all).

Sample #15 offered another example of Multiple Inner Experience. Emily was sitting on her bed thinking about her list of things to be done when she was signalled by the beeper. As the beeper sounded, she was saying to herself in Inner Speech, "I need to write a list of the things I want to do tomorrow." The words seemed to Emily to be a direct command. Simultaneously, she experienced an Unsymbolized Thinking about the seven things she needed to do. This single awareness of the seven items was in the background, as she was focusing on the Inner Speech. She was confident that these two inner experiences—the Inner Speech and the Unsymbolized Thinking about the seven items—occurred at the same time. Also at the moment of the beep, Emily experienced an "exhausted" type of Feeling, which she located in her head. She described this experience as an emotional event that was a dizzy, confusing sense of an array of "thoughts" coming into her awareness in succession.

Yet another example of Multiple Inner Experience was found in Sample #24. Emily was sitting on the living room
couch playing with her dog when she was signalled by the beeper. She had just realized she had forgotten where on the university campus she was to meet the following day to discuss her beeping samples. At the moment of the beep, Emily experienced the thought, "I hope Stephanie calls" in Inner Speech. Simultaneously, she had an image of Wright Hall (the place where sampling discussions usually took place) and the desert garden surrounding the building, which then switched to a "brief, quick" image of the Education building. Along with the Image, Emily was aware of a sense of trying to make a decision about which building was the correct one. At the same time as she was experiencing the Inner Speech, the Image, and the sense of trying to make a decision, Emily reported experiencing a Thought/Feeling of confusion, which manifested itself as tension and tightness, felt in the front of her head between the temples. The confusion seemed to Emily to be as though she were cognitively trying to retrieve something (the location of her meeting) and an awareness of not being able to do so.

Feelings

Emily's inner experience was rich with a variety of Feelings; she reported Feelings in 32 (71%) of her 45 samples. As mentioned earlier, Emily's Feelings could be categorized as Somatically-Oriented Feelings; Thought/Feelings, including a sense of Needing to Do
Something, and a related Suddenly Remembering of something that needed to be done; and Drives. This section will explore each of these categories of Feelings in more detail.

For the most part, Emily had no trouble describing her Feelings or locating the manifestation of these Feelings in specific areas of her body, usually her upper body, chest, and head. The majority of her feelings were in the foreground of her awareness. She experienced both "good" and "bad" Feelings. However, it should be noted that she retrospectively interpreted the Feelings in her inner experience in terms of "conflict" and "guilt," as she did in Sample #1, discussed above. These are concepts Emily associated with much of her inner experience.

Interestingly, though, conflict and guilt were in fact experienced in only three of her samples. However, she reported the lack of conflict and/or guilt in eight samples. In some instances, two or more separate Feelings, rather than one multi-faceted Feeling, were in Emily's awareness simultaneously, a phenomenon we call Multiple Feelings.

**Multiple Feelings**

In 8 (25%) of the 32 samples in which Emily reported experiencing Feelings, she was aware of more than one Feeling, sometimes several, each perceived separately, yet all ongoing simultaneously.

Sample #12 offered an example. At the moment of the beep, Emily was saying to herself in Inner Speech, "I need
to figure out how much money I'll be able to take on vacation." She perceived this to be a statement, command-like, delivered in her own voice. Simultaneously Emily experienced an anxious Feeling, as well as an awareness that there was something she had to do. In addition to the anxious Feeling and the sense of Needing to Do Something, Emily described another Feeling: a direct "take charge" Feeling of strength, accompanied by a Feeling that she likened to the feeling one might experience after having just received an encouraging pep-talk. She speculated that the Feeling of strength was because she knew she had control over what steps to take to accomplish her goal. The strength Feeling was located inside her head, centered between the temples, (an area Emily reported is where she customarily experiences her "strong" feelings). These Feelings were not experienced to be mere aspects of one complex Feeling, but rather were perceived as separate, distinct processes.

Another example of Multiple Feelings was found in Sample #16. Emily was at work. As the beeper signalled, she was saying in Inner Speech, "I'm going to try and get off early today." The words seemed to Emily to be more like a decision than a command or a statement. Simultaneously, she experienced Feelings of conflict and guilt. (As has been noted, Emily tended to describe many of her Feelings in terms of "conflict" and "guilt.") She also was aware of a
Feeling that combined nonconfidence, unsureness, and confusion. Emily reported that this multi-faceted Feeling was experienced as a tightness in her head and upper body, particularly in the front of her forehead between the temples. The "physical" quality of such Feelings leads us to call them Somatically-Oriented Feelings.

**Somatically-Oriented Feelings**

Emily experienced Somatically-Oriented Feelings, in which the emotional components manifested themselves in a "physical" manner, in 18 (56%) of the 32 samples in which she experienced Feelings. Such Feelings encompassed a wide variety of emotional states, including: anger; tension; calmness; inner warmth; excitement; anxiety; anticipation; mental exhaustion; confusion; conflict; guilt; and feeling "down." There appeared to be no one type of Feeling that was more dominant.

In most instances, Emily was able to identify the Feelings in her inner experience in fairly straightforward language, and to specify their location. Only in Samples #3 and #4 was she unable to say where in her body the Feelings were perceived. (Perhaps this was because they were experienced early in the sampling project.) The bodily location of Emily's Feelings was most often her head and her chest. In general, she described the "physical" aspects of her Feelings in somewhat nonspecific terms, such as
"pleasurable" or "nagging;" she was unable to provide much description of the actual somatic sensation.

A typical example of Somatically-Oriented Feelings was found in Sample #30. Emily had been discussing a friend's problems on the telephone just before the beeper sounded. At the moment of the beep, she was saying to herself the words, "I don't feel she should get divorced," in Inner Speech. At the same time, Emily was aware of a "down" feeling, which she reported as a heaviness in the center of her chest, just below the collar bone. The heaviness was perceived as being a couple of inches wide, deep inside her chest.

Sample #3 yielded an example of Somatically-Oriented Feelings in which Emily could not specify a bodily location. She had been worrying that because she had forgotten to put her dog on the patio before she left her apartment, he would chew a shoe from her closet. At the moment of the beep, Emily was saying in Inner Speech, "I hope the dog didn't chew up anything in the house," and at the same time, was aware of an Image of the dog in her bedroom closet holding a shoe in his mouth. Simultaneously with the Inner Speech and the Image, Emily was aware of a Feeling of anger, directed at herself. She described it as feeling "antsy," which she related was like a disappointment over a mistake she'd made that she should rectify. The Feeling did not involve any conflict or guilt. Emily was unable to say where the
feeling was located, although she stated it was a feeling somewhere in her body.

Occasionally, Emily's Somatically-Oriented Feelings were apprehended as being in the background of her inner experience, that is, they were not a prominent part of her awareness, but instead were forming a backdrop for the rest of her inner experience. In two instances, the Feelings were perceived to be more the lack of stressful Feelings than Feelings per se. Both these phenomena are illustrated in Sample #36. Emily was looking at a photograph of beaches and hotels that was taken on her recent vacation. Although she was not sure how, she was trying to determine where the picture was taken. She described her Feelings at the moment of the beep as an awareness of a lack of tension, with no conflictual feelings. Although she could not be specific as to the form this awareness took, she described it as a pleasant state, one in which she had no constricted muscles. As Emily described it, she was aware of, but not focusing on, this relaxed state.

Thought/Feelings

Emily reported Thought/Feelings in 18 (40%) of her 45 samples, and they comprised 56% of the 32 samples in which she reported Feelings. Thought/Feelings for Emily were those that represented an amalgamation of both emotional and intellectual components. That is, they entailed both a Somatically-Oriented manifestation and a cognitive aspect in
a combination that did not allow for a clear-cut division between the two characteristics. Emily's Thought/Feelings sometimes incorporated an underlying urgency, which we'll refer to as a Need to Do Something, as well as a phenomenon we'll call Suddenly Remembering.

An example of a Thought/Feeling was provided in Sample #43. Emily was looking at a picture of a woman dressed in a black mink coat. At the moment of the beep, Emily was imagining in Unsymbolized Thinking how the coat would feel if she were wearing it. She could not say how she experienced this imagining, but that she "just knows" it was part of her inner experience. As she was imagining how the wearing of the coat would feel, Emily was aware of a Thought/Feeling encompassing a "softness," which she felt in her head, and a "lusting," which she experienced as a pressure coming outward from the center of her chest. Emily stated that both these awarenesses were associated, "wrapped up together," although they were perceived to be ongoing separately yet simultaneously. Emily noted that this experience was a combination of Feeling and thought taking place simultaneously, even though she could not pinpoint the specific cognitive aspects of the experience.

Another example of a Thought/Feeling was found in Sample #20. Emily was lying across her bed. The television was turned on. As the beeper sounded, she said to herself in Inner Speech, "That TV is too loud." Simultaneously, she
was aware of a Feeling of aggravation that she described as being "pissed off" because she "knew" that she would have to get up and turn off the television before the loud volume woke her young son. Emily experienced this Thought/Feeling as a tense, squinting type of sensation in her face, as though she were frowning and tensing her muscles (which in reality, she was not).

In Sample #25, Emily was saying in Inner Speech, "I wonder if I still remember how to get to Karen's." Simultaneously, she experienced an Image of an intersection she should drive through on the way. As she was experiencing the Inner Speech and the Image, Emily was aware of a Thought/Feeling of tension, a tightness in her face, as though she were struggling to retrieve some information. She reported the Thought/Feeling as being like the squinting one might resort to because one needs glasses and is trying to see without them. (This is similar to Emily's experience in Sample #24, discussed earlier in the section on Multiple Inner Experience.) In that sample, Emily had just realized that she had forgotten where a forthcoming meeting was to take place, and had wondered in Inner Speech about the location. She also had an Image of the various buildings in which the meeting would take place, and simultaneously, she had a sense of trying to make a decision about which building was the correct one. Emily also reported experiencing a Thought/Feeling of confusion at the moment of
the beep, which she perceived to be a tension and tightness between her temples. For Emily, it was as though she were struggling to retrieve information concerning where the scheduled meeting was to take place, and was aware of not being able to remember this information at the moment. For Emily, this too was analogous to squinting in an effort to see without glasses.

Emily's descriptions of 11 (61%) of her 18 Thought/Feelings incorporated "conflict" and "guilt," concepts that Emily used as a "yardstick" with which to measure her inner experience. In three of her samples, she reported actually experiencing conflict and/or guilt.

Sample #33 provided an illustration of Emily's awareness of conflict and guilt. She was tidying up her kitchen when the beeper sounded. At the moment of the beep, Emily was saying to herself in Inner Speech, "I'm not going to go and work out this morning." Simultaneously, she was aware of a Thought/Feeling, which Emily described as an unpleasant one, marked by a sense of guilt and of conflict, which was a "wanting to and not wanting to" that was perceived as a kind of pressure, or tightness, in one spot in the center of her forehead. Emily noted that she was not in a relaxed state in her inner experience, as this was not a decision with which she wanted to be faced.

In Sample #16, discussed above in the section on Multiple Feelings, Emily also was aware of a Thought/Feeling
of conflict and guilt over her decision to try to get off work early.

As mentioned earlier, in spite of the fact that conflict and/or guilt were featured in only three of Emily's 45 samples, during the debriefing sessions, she reflected on the absence of conflict and/or guilt in eight additional samples. In Sample #36, for example (discussed above in the section on Somatically-Oriented Feelings), Emily was looking at photographs that were taken on her recent vacation, and in Unsymbolized Thinking trying to determine where the picture was taken. Simultaneously, she experienced what she described as a lack of tension, with no conflictual Feelings. Although she could not be specific as to the form this awareness took, she described it as a pleasant state, one in which she had no constricted muscles. She reported that she was aware of, but not focusing on, this relaxed state.

In Sample #2, Emily was driving her car to a location she had driven to only once before. She was saying to herself in Inner Speech, "I'm going to have to turn right at this light." The words were in her own voice, with her own inflection and rate of speaking, and the words were spoken like a command, although not a forceful one. Emily stated that this thought did not involve personal emotion, but rather was clear-cut and specific, and involved no conflict.
Needing to Do Something. Of Emily's 18 Thought/Feelings, 8 (44%) were marked by an urgent, underlying sense of the need to get something done, perceived as a constant, nagging presence. In Sample #11, for example, Emily was at work supervising youngsters in her charge in the kitchen when she was signalled by the beeper. At the moment of the beep, she was saying in Inner Speech, "I wonder where the daycare center is." At the same time, she had an Image of the outside of the school her son attends. Simultaneously with the Inner Speech and the Image, Emily experienced a Thought/Feeling of "nervousness" during which she knew she was unable to locate the daycare center in the course of scanning her image, and knowing that finding it was something she needed to do. This Thought/Feeling was manifested in her chest and shoulders. Emily described it as an uncomfortable, shaky, unsure sensation.

Sample #22 provided another example of Needing to Do Something. Emily was making her bed when the beeper sounded. She was saying in Inner Speech, "I need to put the dog out on the patio." Simultaneously, Emily was aware of a separate sense of obligation or duty, that took place in her head.

Emily experienced a strong sense of Needing to Do Something in Sample #45. She was walking into her kitchen, saying to herself in Inner Speech, "I need to call ..." when
the beeper sounded. At the moment of the beep, Emily completed the thought "...Cheryl" in Unsymbolized Thinking verging on Wordless Inner Speech. Simultaneously, she was aware of a "sensation," which she described as a drive, of Needing to Do Something—call Cheryl—and that it was important that she do it. Additionally, Emily had an Unsymbolized awareness of having forgotten to do something.

**Suddenly Remembering.** Three of Emily's Thought/Feelings incorporated Suddenly Remembering something Emily needed to do. This phenomenon was different from Needing to Do Something, as described above, in that Suddenly Remembering incorporated a sharp, jolting sensation that had a Somatically-Oriented base as well as a cognitive component. Additionally, Suddenly Remembering did not possess the foreboding nagging that, as we have mentioned, was inherent in the Needing to Do Something type of Thought/Feelings.

An example of Suddenly Remembering was provided in Sample #55. Emily was pulling out of a parking lot, and was saying to herself in Inner Speech, "I need to drop off the laundry." The beep sounded near the end of this inner sentence. Emily reported a feeling of having Suddenly Remembered something (dropping off the laundry). She described this as feeling startled, a sudden, jerky movement of her body. Emily stated her body did not actually move, even though she experienced it as jerking. However, she had
been preparing to turn her car in one direction, but turned another way because of remembering the task she had to do.

Another example of this phenomenon was found in Sample #21. Emily was lying across her bed watching television. She was saying to herself in Inner Speech, "I need to make an appointment to get my hair cut tomorrow." The beep sounded in the middle of the word "tomorrow." Emily described the statement as "animated," because she had a sense of Suddenly Remembering that she had forgotten to make the appointment. She reported a "startled" Feeling at the moment of the beep, felt in her head and focused in the eyebrow area. (Emily raised her eyebrows and made gestures with her arms as she described this "startle" reaction.)

Drives

In two of Emily's samples she experienced strong desires, which we call Drives. In both these samples, the object of her desire was food. In Sample #7, Emily was at work, supervising the youngsters who were her charges. She was thinking about the cake she had at home. At the moment of the beep, Emily had an image of a layer of wedding cake in her refrigerator. Simultaneously, Emily experienced a sense of wanting to eat a piece of the cake. She described this as a strong desire, an "obsession," which Emily depicted as a strong, driven conviction that it was important for her to experience the feel and taste of the cake. This Drive did not include hunger or its
satisfaction. Rather, it seemed to be an innate "pushing" toward the feel and the taste of the cake. Simultaneously with the Image and the Drive, Emily reported that she was tasting the cake in her inner experience at the moment of the beep. This tasting will be discussed more fully in a later section on Incongruent Bodily Awareness. (Emily stated that her inner experience in this sample reflects how she is about food in reality.)

In Sample #17, Emily was sitting on a couch at work, taking a break. As the beep sounded, she had an Image of the frozen yogurt store she sometimes patronized. The Image was seen from the perspective of the parking lot, through the windows to the interior of the store, where she saw the tables and the counter. Simultaneously, Emily reported a feeling of desire for yogurt. She described this feeling as a Drive over which she had no control. It was experienced as a nagging type of Feeling in her mouth. She also was aware of a salivation type of sensation, but one without the element of taste. Emily described two components to this Drive: salivation, which was experienced in her mouth, and wanting, which was experienced as pressure in her forehead. For Emily, this Drive constituted a "rightness" that needed to be released. She stated that the experience seemed "biological" and "just took over" her head and her mouth.
Inner Speech

Inner Speech, which is the production in inner experience of one's own voice complete with inflection, tone, and other vocal characteristics, was a feature in 30 (66%) of Emily's 45 samples. She reported no instances of Multiple Inner Speech.

Much of Emily's Inner Speech contained directives to herself concerning things she should do. In fact, as we have seen briefly in the samples described above, Emily's sentences in Inner Speech in 15 (50%) of the 30 Inner-Speech samples contained the phrase, "I need to...," or "I'm going to have to...," or similar expressions (as opposed to the other 50%, which began with, "I think...," "I wish...," "I wonder...," "I am...," "I'm not...," or "I hope..."). Emily's self-directing Inner Speech is differentiated from Thought/Feelings of Needing to Do Something by the absence of an inherent sense of nagging obligation.

Some of the directives in Emily's Inner Speech possessed a command-like quality; this appeared in 8 (27%) of the 30 samples in which Inner Speech was reported. For example, in Sample #2, discussed earlier in the section on Thought/Feelings, Emily was driving her car to a location to which she had driven only once before. As the beeper sounded, she experienced herself saying the words, "I'm going to have to turn right at this light." The words were in her own voice, with her own inflection, tone of voice,
and rate of speaking, and the words were spoken like a command, albeit not a forceful one.

Another example of Inner Speech perceived as a command was found in Sample #10. Emily was at work, walking from one area to another, when the beeper sounded. She was thinking, "I'm going to have to write my bills before I leave." The beep sounded just before the word "leave." At the moment of the beep, Emily had a sense of producing the words herself, even though she was not speaking them aloud. The words were in her own voice, with her regular rate and pitch, and were a command to herself, in a "parental-type" voice. At the same time, Emily experienced a Feeling of anxiousness, manifested as a nagging in her chest area, as though something was eating at her. This Feeling of anxiety felt like a knot towards the right of her chest. She felt a pressure, as though there were something that she should have done but had procrastinated in doing (as in Sample #1). However, there was no conflict involved in this Feeling, according to Emily.

Sometimes, Emily's Inner Speech was related to whatever she was doing when the beeper sounded. An example of this was Sample #54. Emily was in her car, waiting in line at the drive-up window of her bank. While she waited, she was working on her transaction. As the beeper sounded, Emily was looking down at her check and writing the word "sixty." As she wrote, she was saying the word to herself in Inner
Speech, a letter at a time: "s...i...x...t...y." She stated that she was actually writing the letter "x" at the moment of the beep, but was aware of saying the other letters in Inner Speech, including the "t" and the "y." Inner Speech congruent with her ongoing activity also was illustrated in Sample #23. Emily was doing sit-ups and counting to herself when the beeper sounded. At the moment of the beep, she was saying in Inner Speech, "...12...13." Although the Inner Speech was experienced as such, there also was the sense of almost saying the numbers; Emily had the perception of her mouth moving, as though she were mouthing the words, even though she was confident that she was not counting aloud in reality.

Sometimes, Emily's Inner Speech appeared to be complementary to other aspects of her inner experience. In Sample #11, discussed above in the Thought/Feeling section on Needing to Do Something, Emily was saying in Inner Speech, "I wonder where the daycare center is?" in her own voice, with her normal inflection. At the same time, she was "scanning" an Image of the outside of the school her son attends to see where the daycare center was located.

This is similar to Sample #25, discussed earlier in the section on Thought/Feelings. As the beeper sounded, Emily was aware of saying, "I wonder if I still remember how to get to Karen's" in Inner Speech. At the same time, she had
an Image of the intersection of two of the streets she should take to get to her friend's house.

In Sample #19, Emily was relaxing in her bedroom, looking towards her closet, which was closed. At the moment of the beep, she was saying in Inner Speech, "I think I'll wear my pink sweatpants to go and work out tomorrow." The beeper sounded just after the word "sweatpants." At the same time, Emily had an Image of herself--seen from the front--wearing the sweatpants. Her focus was on the pants, and she was not aware of her shirt, or of where she was standing.

In some instances, Emily's Inner Speech was experienced in combination with Feelings that reflected the content of the speech. An example was Sample #14. Emily was looking in her closet. At the moment of the beep, she was saying to herself in Inner Speech, "I'm going to have to start packing." The beep sounded in the middle of the sentence. Emily perceived the words to be reminding herself to do something. Emily also was aware of Feeling an anticipatory type of anxiousness, a happy, looking-forward-to feeling that also included a "must do something" component.

Occasionally, Inner Speech was the only element of Emily's awareness, as in Sample #41. Emily was standing in her living room looking at the floor. At the moment of the beep, she was saying, "I need to vacuum the floor" in Inner Speech, in her own natural inflection and at her normal rate
of speed. Emily was not aware of anything else in her inner experience.

Unsymbolized Thinking

Unsymbolized Thinking is the experience of knowing the content and/or meaning of a thought in the absence of symbols such as words, Feelings, or Images. Emily's samples included 17 (38%) which featured Unsymbolized Thinking, some of which verged on Wordless Inner Speech. Only one of these samples incorporated Multiple Unsymbolized Thinking.

An example of Unsymbolized Thinking is provided in Sample #9. Emily was sitting at work, trying to visualize the hotel where she was planning to stay during her upcoming vacation in Cancun, Mexico. Simultaneously with a black-and-white Image of the hotel (to be discussed in more detail in a later section on Images), Emily had a Feeling she described as being excited, yet at the same time, calm and relaxed. Simultaneously, she experienced an Unsymbolized Thinking that was an awareness of an unwillingness to let go of the pleasant Feeling; Emily was unable to describe what form this awareness took.

Sample #10 (discussed above in the section on Inner Speech) yielded another example of Unsymbolized Thinking. Emily was thinking in Inner Speech, "I'm going to have to write my bills before I leave." At the same time, she experienced a Feeling of anxiousness, manifested as a
nagging in her chest area, as though something were eating at her. The Feeling of anxiety felt like a knot towards the right of her chest. She also felt a sense of Needing to Do Something that was experienced as a pressure, as though there was something that she should have done but had procrastinated in doing. Also simultaneously, Emily experienced an Unsymbolized Thinking that was an awareness that even though it involved something that was her own fault, she had control over the cause of the Feeling of anxiety. Emily could not say how the awareness that the anxiety was her own fault, and thus was under her control, took place.

Sometimes, Emily was trying to determine something in Unsymbolized Thinking. For example, in Sample #36, discussed earlier in the section on Thought/Feelings, Emily was looking at a photograph of beaches and hotels taken on her recent vacation. She was trying to determine, in Unsymbolized Thinking, where the picture was taken. This experience was the same kind of thought activity that could not be further differentiated as described in the paragraph above.

In another instance, in Sample #18, Emily was lying on her bed, relaxing as she watched television. At the moment of the beep, she was saying in Inner Speech, "That is a strange shirt that he has on." Emily perceived the words to be an idle comment. Her attention was focused on the shirt
the man on television wore, and she was aware of trying to figure out what the graphics were on the front of the shirt. Emily reported that there were no Feelings or sensations involved, and other than the fact that it seemed to be some type of mental process (and thus qualifies as Unsymbolized Thinking), she could not say what form this "figuring out" took.

One of Emily's Unsymbolized Thinkings, found in Sample #6, verged on a visual experience. Emily was having a conversation with a friend and at the same time leafing through a magazine. She was looking at a picture of an older man and had said aloud to her friend, "He looks like my son" when she was signalled by the beeper. Emily stated that in her inner experience, she was comparing the man in the magazine picture to her son. She reported that she was visualizing the man in the picture, then visualizing her son. As she was comparing the two, she was thinking that the man resembled her son. This visualization was not in the form of an Image, however, but rather was Unsymbolized Thinking.

Four of Emily's samples of Unsymbolized Thinking involved an inner speaking of a word or words in the absence of the actual words, and without having had the sense of producing the words—a phenomenon we call Unsymbolized Thinking verging on Wordless Inner Speech. This differs from Inner Speech, described in an earlier section, in that
in Inner Speech, Emily was unequivocally able to state that
she had the sense of producing words in her own voice, with
her own inflection, even though she was not saying the words
aloud in reality.

All four of Emily's samples containing Unsymbolized
Thinking verging on Wordless Inner Speech involved the
finishing of a sentence, the beginning of which had been in
Inner Speech. Sample #47 provided a representative example.
Emily was driving to the store. The beeper sounded as she
was passing the Craftmart shop and looking at the store
sign. She was saying to herself in Inner Speech, "I think
I'll go to Craftmart..." She did not complete her sentence
after she turned off the beeper, but was aware of what she
had been saying to herself in Inner Speech, and at the
moment of the beep, she perceived the phrase "...when I'm
finished" in Unsymbolized Thinking on the threshold of
Wordless Inner Speech. Emily could not describe how she
perceived this completion of the sentence. She said she
just "knew" what the thought was, and perceived it to be
verbal, and that even though it was not spoken in her inner
experience, it was understood to be more like speaking than
just knowing the thought.

Multiple Unsymbolized Thinking

In Sample #45 (discussed briefly above in the
Thought/Feeling section on Needing to Do Something), Emily
was aware of several separate but simultaneous inner
experiences. She was walking into her kitchen, saying to herself in Inner Speech, "I need to call ..." when the beep sounded. She had stopped in her path to turn around and go to the telephone. Although Emily did not complete her sentence in Inner Speech at the moment of the beep, she had an Unsymbolized Thinking verging on Wordless Inner Speech that the person she should phone was Cheryl. Thus, at the moment of the beep, she perceived "Cheryl," not as an actual word but rather as a verbally-oriented "knowing" what the word was, and a separate, awareness that she should telephone Cheryl. Simultaneously, Emily was aware of a Thought/Feeling of Needing to Do Something and, at the same time, of an Unsymbolized knowing that it was important that she do it. At the same time as the Wordless Inner Speech, the awareness of having to call Cheryl, the nagging sense of Needing to Do Something, and the knowing that what she had to do was important, Emily experienced an Unsymbolized awareness of having forgotten to do something.

Inner Visual Experience

Emily's inner experience included Images in 12 (27%) of her 45 samples. In most cases, these Images were rather straightforward representations of things she had seen. Although many of Emily's images were not perceived to be colorful, she reported that when her Images were colorless, it was because there was nothing colorful in the scene.
Indeed, some of her Images contained explicit, true-to-life color. Emily's Images also possessed varying degrees of clarity. Thus, Emily's Images can be categorized along the dimensions of color and clarity. The degree of color could be arranged on a continuum ranging from black and white, to black and white with "known" color, to full color. Similarly, the clarity of Emily's Images could be organized on a continuum ranging from Unsymbolized Thinking verging on an Image (e.g., in Sample #6, discussed above in the section on Unsymbolized Thinking, when Emily was comparing a man in a magazine picture to her son), to blurred Images, to clear Images.

An illustration of a clearly-detailed, black-and-white Image was found in Sample #9, discussed previously in the section on Unsymbolized Thinking. Emily was sitting at work, thinking about the hotel where she was planning to stay during her forthcoming vacation in Cancun, Mexico. She was trying to visualize the hotel, even though she had only seen the building in fleeting pictures on television commercials. At the moment of the beep, Emily experienced an Image of the hotel, comprised of its shape and its many windows. The Imaged hotel was not rectangular in shape, but rather had expanded lower floors—as it does in reality—and was similar to a picture of the hotel Emily had seen in a commercial.
An example of an Image further along the continuum between black and white and full color was a brownish-hued Image found in Sample #21 (briefly discussed in the section on Suddenly Remembering Thought/Feelings). In that sample, Emily was lying across her bed watching television. She had a sense of Suddenly Remembering that she had forgotten to make an appointment to get her hair cut the following day. Simultaneously, Emily experienced an Image of the shop at which she gets her hair done. The Image was of the inside of the shop, from the perspective of walking in the door, from which vantage point she was aware of a counter and two seats in the waiting area. The Image contained no specific colors, but Emily apprehended brown hues (as there are in reality). However, there was no receptionist at the Imaged counter (as there would be in reality), the counter was bare, and there were no people in the seats.

Sample #26 provided an example of "known" color in an otherwise colorless Image. In that sample, Emily experienced the words, "I think I'll go to Room 305" in Inner Speech. At the same time, she had an Image of Room 305, as if seen from the doorway of the room. The Image contained a clear representation of the conference table, although the chairs on either side of the table were not clear. Emily had a sense of green color on the left in her image. The color had no shape or specificity. Emily could not place the green color in a specific location in the
Imaged Room 305. She described this experience as a "knowing" of green, which was Unsymbolized Thinking. (It is interesting to note that in reality, there is a green chalkboard taking up much of the right wall of the room, as seen from the perspective of the doorway.) Simultaneously with the Image, Emily experienced an Unsymbolized Thinking that contained an element of indecision about the location of her upcoming meeting.

Sample #7, which we discussed in the section on Drives, provided an example of a clear Image in full color. In that sample, Emily was thinking about the wedding cake in her refrigerator. At the moment of the beep, she had an Image of the layer of cake in her refrigerator, seen not as if she were looking in through the open door, but rather from the perspective of seeing from inside the refrigerator. The Imaged cake was round, decorated with white icing and mint-green flowers. The colors were accurately portrayed in Emily's inner experience; a slice had been cut out of the cake (as it had been in reality). The cake was not on a plate in the Image, nor were there other foods or condiments surrounding the cake.

In three of her samples, Emily reported the phenomenon she described as "scanning" her Images to retrieve certain information. Sample #46 offered an illustration of this scanning of an Image. Emily was driving her car. At the moment of the beep, she was saying in Inner Speech, "I think
I'll drop Tim and then go to the 7-11." Simultaneously, she was visualizing in an Image the street where she was to drop off her son, scanning the front of a building in the Image, trying to figure out where there was a 7-11. As Emily described it, it was as if the street were inside her head. She scanned to the right of the building to find the 7-11 next to the gas station (Emily stated that she knew there was a 7-11 somewhere in the area of the daycare center). Her Image seemed to her to be perceived in "frames," like a filmstrip, but Emily noted that there were no distinct divisions between these frames. As she scanned her Image, she located the 7-11 next to the gas station. The Image was partially in color, in that she was aware of an orange sign at the gas station. However, the Imaged building was blurred, which Emily explained was because she was not trying to focus on anything in particular, but rather on the direction in which she was scanning the Image to locate the store. The Image was perceived to be inside Emily's head in front of her eye area, taking up her whole visual field; the Image had no edges.

Another example of the scanning of an Image was found in Sample #24, already discussed in the sections on Multiple Inner Experience and Unsymbolized Thinking. Emily had just realized that she had forgotten where on the university campus her meeting the following day was scheduled, and was saying, "I hope Stephanie calls" in Inner Speech. At the
same time as the Inner Speech, Emily had an Image of Wright Hall, one of the buildings in which she regularly meets with Stephanie, and the desert garden surrounding the building. Alternately, Emily's Image switched to a "brief, quick" Image of the Education building, where meetings had taken place in the past. Emily reported that she had a sense of "scanning" the Education building as though she were standing outside in front of the building near the door she generally uses to enter the building. According to Emily, she was not attempting to focus on either building in her inner experience. Instead, she was aware in Unsymbolized Thinking of trying to make a decision about which building was the correct one. Emily's Image was not clear; she likened it to the view seen in the imagefinder of a camera that was not properly focused.

**Bodily Awareness**

Emily was aware of bodily sensations that had no emotional component in 11 (24%) of her 45 samples. These Bodily Awarenesses were different from the Somatically-Oriented Feelings we discussed earlier in that, although both experiences involved a "physical" sensation, Bodily Awarenesses possessed no emotional significance. Bodily Awareness for Emily was Congruent Bodily Awareness, in which the awareness mirrored her actual physiological state at the moment of the beep, and Incongruent Bodily Awareness, where
the bodily sensations were not consistent with her physical state at the time.

**Congruent Bodily Awareness**

One example of Congruent Bodily Awareness was Sample #44, when Emily was on her patio, sweeping, and humming aloud in tune with a song on her radio. At the beep, Emily said she could "hear" herself humming. She also had a Bodily Awareness of the vibrations of her vocal cords in her throat. For Emily, it was as if she had placed her hands over her ears while speaking—the sound of the voice magnified to fill her whole head.

Sample #51 afforded another example. Emily was lying on her bed, still dressed but drifting off to sleep. As the beeper sounded, it startled Emily, and made her heart jump (in reality). In her inner experience, she was aware of a Feeling of heaviness in her torso and arms. Emily also experienced an alarmed, fearful Feeling, and simultaneously had a Congruent Bodily Awareness of her heart fluttering as it beat faster in response to the sound of beep.

**Incongruent Bodily Awareness**

In 3 of the 11 samples in which Emily experienced a Bodily Awareness, it was an awareness that did not mirror her current physical state. In Sample #42, for example, Emily was perusing a magazine article on corporate fitness. She was reading to herself when the beeper sounded. At the moment of the beep, she was aware of experiencing this
reading as a pressure felt in her forehead, behind her eyes near her temples. Simultaneously, Emily had an Incongruent Bodily Awareness of her mouth moving, and of moving her jaws as she read, although she was confident she was not moving her lips in reality.

In another example, Sample #7 (discussed earlier in the section on Inner Visual Experience), Emily had an Image of a layer of wedding cake in her refrigerator and experienced a Drive to experience the taste and the feel of the cake. Simultaneously with the Image and the Drive, Emily reported that she was tasting the cake in her inner experience. Her inner tasting was refined enough that she could differentiate between the flavor of the icing and that of the cake. The inner tasting was focused in her mouth, so that Emily had an awareness of actually tasting the cake, which in reality she was not, although she was fairly confident that she actually was salivating.

**Inner Hearing**

Emily reported Inner Hearing, where the inner experience is more like listening than actively creating the sound, in only one instance, Sample #44, described above in the section on Bodily Awareness. In that sample, Emily was humming aloud in tune with a song on her radio. At the moment of beep, in addition to a Bodily Awareness of the vibrations of her vocal cords, Emily could "hear" herself
humming. For Emily, the humming was apprehended more from the inside of her head than as though the sound was heard through her ears from the outside. The humming and the experiencing of the vibration of her vocal cords seemed to Emily to be happening simultaneously.

Summary

Emily's inner experience contained a variety of salient characteristics, and she experienced multiplicity of experience fairly often. In 40% of her samples—mostly consisting of a variety of characteristics occurring at any one time—Emily's inner experience was an amalgam of different "events," each experienced separately yet simultaneously, although she occasionally experienced multiple experiences of the same salient characteristic, e.g., Multiple Feelings.

Feelings were the most prevalent aspect of Emily's inner experience, reported in 71% of her samples. Emily's Feelings included Somatically-Oriented Feelings (56%), which entailed bodily manifestations of emotional events, and Thought/Feelings (40%), which possessed both cognitive and emotional components. Thought/Feelings included two related phenomena: An overriding sense of Needing to Do Something, incorporating an underlying sense of obligation; and a Suddenly Remembering, in which a jolt of memory provided a physical sensation that was not actually manifested in
reality. Emily also experienced Feelings we call Drives, in which she was aware of a strong desire for something.

Inner Speech occurred almost as often as Feelings; it was represented in 66% of Emily's samples. Her Inner Speech frequently included directives and commands to herself that contained certain elements, such as "I need to...," and "I'm going to have to..." These experiences were similar in content to the Thought/Feelings that were characterized as Needing to Do Something, yet did not possess that same constant, nagging presence.

Emily also experienced Unsymbolized Experience in 38% of her samples. The majority of her Unsymbolized Experiences were Unsymbolized Thinking, in which inner experience is perceived to be "known" in the absence of symbolic messages, such as words, Images, Feelings, or other symbols. However, some of the Unsymbolized Thinking verged on Wordless Inner Speech, in that verbal elements were perceived to be inherent in the thought, even though words per se were not present in Emily's awareness at the moment of the beep, and she had no sense of creating the speech herself.

Emily experienced Inner Visual Experience in 25% of her samples. Her Images could be organized on a continuum of color, ranging from black and white, to black and white with "known" color, to full color. Similarly, the clarity of Emily's Images could be organized on a continuum ranging
from Unsymbolized Thinking verging on an Image, to blurred Images, to clear Images. An interesting aspect of her Images was the phenomenon of "scanning" an Image, where she scrutinized an Image by browsing from one segment of the Image to the other, searching for some significant information. All the "scanned" sections of the Image were perceived by Emily to be "frames" of the Image, experienced simultaneously.

In 24% of her samples, Emily experienced Bodily Awarenesses--events that possessed a physical component but no emotional significance. These were either Congruent Bodily Awareness that mirrored her physical state in reality, or Incongruent Bodily Awareness that was not relative to her actual physiological condition. Emily also experienced one instance of Inner Hearing, where the inner experience is more like listening than creating the sound.
Melissa (not her real name) was an 18-year-old college student. She worked part time whenever she was able to find a job that would fit in with her school schedule, but was unemployed at the time of sampling. Melissa volunteered to take part in the study after hearing an announcement in her introductory psychology class that bulimic subjects were being recruited. She did not receive extra credit for participating.

Melissa was binge eating but not purging at the time she took part in the project. She reported that she had made a decision to be content with her current weight—she was approximately 20 pounds overweight at the time of sampling—instead of purging to try to control her heaviness. Melissa said she had been bulimic since she was 15 or 16 years old. She satisfied the DSMIII-R criteria for bulimia, although she had never been hospitalized for an eating disorder, nor was she in therapy.

Melissa used the beeper for seven days over an 18-day period. We discussed in detail 25 of her samples, which represented approximately 80% of the total number collected (she canceled two debriefing sessions). This chapter is based on those 25 samples.
Several salient characteristics were revealed in an analysis of Melissa's inner experience as reported in her samples. After a brief overview of these characteristics, we will return to describe each aspect more fully.

Melissa reported Multiple Inner Experience in many (60%) of her samples. Much of this multiple experience incorporated several different characteristics, all ongoing at the moment of the beep, yet all experienced as separate elements.

Many (72%) of Melissa's samples included Unsymbolized Thinking—often experienced multiply—where the meaning of a thought was apprehended despite the absence of actual words, Images, Feelings, or other symbolic messages. Melissa's Unsymbolized Thinking also included Wordless Inner Hearing, and Unsymbolized Thinking verging on Wordless Inner Hearing, where even though there were no words per se, the experience was nevertheless understood to be a wordless-but-verbal event that was heard or almost heard.

Melissa also experienced Feelings, sometimes Multiple Feelings, in 36% of her samples. These included Somatically-Oriented Feelings, experienced as "physical" manifestations of emotional sensations, and Thought/Feelings, having a cognitive as well as an emotional quality.

Another aspect of Melissa's inner experience, occurring in 36% of her samples, was Bodily Awareness. She
experienced both Congruent Bodily Awareness, which reflected her actual physical state, and Incongruent Bodily Awareness, which did not mirror her actual bodily condition at the moment of the beep.

Inner Visual Experience occurred in 24% of Melissa's samples. Her Inner Visual Experience ranged from Indeterminate Visual Experience, where the inner experience was perceived as having a definite visual component even though it was not a clear Image, to clearer Images of words, where she reported seeing words and/or sentences.

In two of her samples, Melissa was aware of Inner Hearing and in one sample, of Inner Speech. In two samples, she experienced an amalgam of Inner Hearing and Inner Speech that we call Inner Hearing/Speech, in which both Inner Hearing and Inner Speech were present to her awareness, but were not clearly delineated as Inner Hearing and Inner Speech.

In the following sections, we will discuss the salient characteristics of Melissa's inner experience in some detail.

Multiple Inner Experience

Melissa reported many simultaneous happenings in a single sampled moment in 15 (60%) of her 25 samples. In these 15 samples, several different events formed her inner experience at the moment of the beep.
For example, in Sample #2, Melissa experienced a number of salient characteristics, all present to her awareness simultaneously. She was talking to her friend about the friend's problem of low self-esteem. Melissa was speaking forcefully, saying aloud, "Looks shouldn't matter!" when the beeper sounded. At the moment of the beep, she was not aware of her sentence, "Looks shouldn't matter!" but was aware of two Unsymbolized Thinkings: an Unsymbolized Thinking of wanting to refute her friend's opinion that looks do matter, and simultaneously, a separate Unsymbolized Thinking of wanting to get across to her friend the notion that self-esteem depends upon how one feels about one's self.

Simultaneously, with the Unsymbolized Thinkings, Melissa experienced two separate, complex Thought/Feelings—so called because they were experienced as being both emotional and cognitive inner events—of anger and frustration. She reported that the Thought/Feelings of anger and frustration might have manifested themselves in her chest area, to which she pointed in the interview, but she could not be sure. She described the Thought/Feeling of anger as incorporating two separate awarenesses at the moment of the beep: an awareness of having been through a lot with this friend, and of having said the same kinds of things to her repeatedly in the past. The Thought/Feeling of frustration was perceived as having several components:
a mental searching for something that would enable Melissa to get this idea that looks shouldn't matter across to her friend; a frustration with herself and her friend because she was aware that she was attempting to force her opinion on her friend, and her friend was not accepting it; and a frustration with society's opinions on this subject—that looks do matter. Melissa's Thought/Feelings of anger and frustration were (like all the Thought/Feelings she reported) what she described as a "mixture" of thinking and feeling, such that she was unable to tease the emotional and the cognitive elements apart.

Further examples of Multiple Inner Experience will be provided in the sections below describing the other salient characteristics of Melissa's inner experience.

Unsymbolized Thinking

Unsymbolized Thinking was the most prevalent feature of Melissa's inner experience as reflected in her reported samples; she experienced Unsymbolized Thinking, sometimes multiply, in 18 (72%) of her 25 samples. As mentioned earlier, Unsymbolized Thinking is inner experience in which the content of a thought is in awareness in the absence of symbols such as words, Images, or Feelings that serve as vehicles to transport the idea to consciousness.

In 12 (67%) of the 18 instances of Unsymbolized Thinking, the Unsymbolized Thinking was a single event in
Melissa's inner experience, although other non-cognitive features were often present. Sample #4 offered an example of Unsymbolized Thinking. Melissa was writing a letter to the president of a company from which she had recently been fired for what Melissa considered to be no good reason. When the beeper sounded, she was writing automatically without paying attention to what she was writing; she stated that instead, her focus was on her inner experience. At the moment of the beep, she was hoping in Unsymbolized Thinking that the company president would take her letter to heart without judging that she was stupid. If expressed in words, that thought would have been, "God, he's going to think I'm stupid" (although no actual words were present). She described the experience as a hope that the company president wouldn't think she was stupid. Melissa reported that the thinking was not in exact words but that she was aware of the general meaning of the thought. According to Melissa, she reported that even though in reality she was feeling angry while writing the letter, at the moment of the beep she was aware not of the anger, but rather of a Feeling of insecurity. She described this as Feeling "sort of anxious." She also experienced an Incongruent Bodily Awareness of being trapped in her own skin (Incongruent Bodily Awareness is discussed further in a separate section below).
Sample #23 also yielded an example of Unsymbolized Thinking. Melissa was looking through the Automotive section of the newspaper. She had read the words "'79 Civic" and was in the process of trying to locate the price in the ad when the beeper sounded. At the moment of the beep, Melissa was aware of an Unsymbolized frantic searching for the price of the car. She likened this frantically looking for the price to the state she is in when she desperately wants a piece of chocolate. For Melissa, the searching for the price was a strong Unsymbolized wanting to know the price of the vehicle. (Although she stated that she was anxiously searching for the price, Melissa stated that there was no Feeling attached to the Unsymbolized searching, and it was not like the Feeling of anxiety she had experienced in other samples.) Melissa also was aware of another simultaneous Unsymbolized Thinking: a background Unsymbolized Thinking that was a questioning, a wanting to know how much she could expect to receive for her own Honda.

In three samples, Melissa was aware of Unsymbolized Thinking that was perceived as Inner Hearing that nevertheless possessed no actual words, that is, it was Wordless Inner Hearing or was on the threshold of Wordless Inner Hearing. In these samples, Melissa's experience was of "hearing" words that were not actually present to her awareness, rather than just knowing the meaning of the thoughts. In Sample #8 for example, Melissa was drinking...
whiskey and watching television. Jack—a mouse character on
the cartoon program she was watching—had just said, "What's
the matter with Cinderelli?" when the beeper sounded. At
the moment of the beep, it seemed as if the sentence were
echoing in Melissa’s awareness, as if she were holding the
thought, "What's the matter...?" in the mouse’s little voice
in her mind, even though she was not hearing the words
themselves. That is, it was as if she were hearing him
again in her head, even though the thought was not actually
in words. Simultaneously, Melissa experienced a Bodily
Awareness that she was moving her eyes trying to keep up
with Jack, the mouse on television, which was moving very
quickly. She also experienced an Unsymbolized knowing that
she couldn't keep up with the television mouse.

In Sample #3, Melissa experienced Unsymbolized Thinking
verging on Wordless Inner Hearing. She was watching Punky
Brewster on television. On screen, Henry, one of the show’s
characters, was taking a photograph of what Melissa referred
to as the "snobbish rich kids." To get the children in the
scene to smile for the picture, Henry was asking them to
"Say ‘inheritance’." Melissa was watching a little girl in
a pink dress on the screen when the beeper signalled. At
the moment of the beep, she was aware of thinking, "How
greedy." Melissa’s thought "How greedy" was perceived to be
verbal, even though it was not actually in words. In spite
of the thought not being in words, for Melissa, it was as if
she were "hearing" the thought in her head, and somehow perceived it to be in her own voice—albeit a voice that was different from and less raspy than her normal voice—which seemed to travel from front to back. However, she described the inner voice as being part of herself, rather than actually being her own voice. For Melissa, the experience was not like speaking because she did not have a sense of creating the thought but rather, the experience was one of being "in sync," that is, part of what was going on inside her brain. The "heard" voice was what Melissa described as "plain," in that it had no inflection. To illustrate this lack of inflection, she stated that there would be no exclamation point after the words "How greedy" if the thought were written in words.

Melissa reported that the thought "How greedy" was so clear in her inner experience that she visualized the words, glowing with an aura of "bluish-reddish" letters in front of her head close to her forehead. (This Imaging of words will be described in more detail in the section on Inner Visual Experience below.) Also at the moment of the beep, Melissa was aware of a Thought/Feeling that if put into words would be, "How fake the show is!" As she described the experience, the Thought/Feeling about the "fakeness" of the show was surging up, perceived by Melissa to be expanding from the "How greedy" concept and following it, accompanied by a "rushing up" in her chest area.
Multiple Unsymbolized Thinking

Multiply occurring Unsymbolized Thinking was found in 6 (33%) of the 18 samples in which Melissa reported Unsymbolized Thinking, including Sample #2, discussed in the previous section. Sample #18 (in which Unsymbolized Thinking was the only inner experience reported) provided another example of Multiple Unsymbolized Thinking. In that sample, Melissa was at a copying machine at Kinko's Copies. She had been worrying that there was something wrong with her beeper, since she had heard what she described as a loud sound in her earplug that made it seem as though a passage had been opened, as might happen when one's ears "pop." The beeper signalled a second or two after that "pop" sounded. The main focus of her attention at the moment of the beep was an Unsymbolized Thinking in which she was wondering what was happening with her earplug, which she described as a confusion, a "What's up?" type of concern that was a general mental questioning. Also at the moment of the beep, Melissa was conscious in the background of an Unsymbolized awareness of a woman working on another copier to the side. Simultaneously, she experienced another Unsymbolized Thinking that was a preparing not to worry about whatever was going on with her beeper.

Another example of Multiple Unsymbolized Thinking was found in Sample #27. Melissa was driving her car and was stopped at a traffic light. In a car ahead of her on her
left was a man holding a cellular telephone. At the moment of the beep, Melissa was aware of Unsymbolized Thinking two separate but related thoughts: She was speculating that the driving would be slow because she had just figured out that the man ahead of her was an old man--because he had old people in the back of his car and was talking on a cellular telephone--which would result in the traffic being slow. Also at the moment of the beep, Melissa was aware of a simultaneous Unsymbolized Thinking that the slowness of the driver ahead of her was not important. This was a sense of not worrying, an awareness that it didn't matter if the traffic was slow. She said that at the moment of the beep, she was still fitting the pieces of the thought together, thinking both parts of the thought at the same time, but somehow perceiving them to be coming into her awareness one at a time. Simultaneously, Melissa was aware of Inner Hearing/Speech in which she was singing along to a tune on the car radio (this aspect will be discussed in more detail in a later section).

Sample #25 offered another example of Multiple Unsymbolized Thinking. Melissa was looking at her beeper and playing with the knob, turning it towards herself. While she was focused on the knob, she also was eating a graham cracker. Some of the cracker was stuck between her upper lip and her gum and she was trying to force the fragment out with her tongue. At the moment of the beep,
Melissa was Unsymbolized Thinking that the cracker was very dry, and that because of the dryness, it was making her feel sick. (The feeling sick itself was not manifested in any way in her inner experience.)

Simultaneously, Melissa experienced another Unsymbolized Thinking of trying to concentrate on the other parts of her mouth; she described it as "scanning" her mouth with her mind to see how dry the rest of her mouth was. This scanning seemed to move from the right side of her mouth, where the piece of cracker was stuck, down across her tongue to the left side of her mouth. She was not able to say how she was aware of the scanning process. Also simultaneously, Melissa was aware of separate Feelings of frustration and annoyance, felt in the middle of her body. She stated that the Feeling of frustration was more prevalent than the Feeling of annoyance, but that they were both there in her awareness at the same moment.

Simultaneously, Melissa had a Bodily Awareness of a tenseness in her mouth, as if her tongue were getting tired from the attempt to retrieve the morsel of graham cracker.

Feelings

Feelings were an aspect of Melissa's inner experience in 9 (36%) of her 25 samples. Her Feelings could be classified as Somatically-Oriented Feelings, which had a "physical" quality manifested in her body, and
Thought/Feelings, possessing both emotional and cognitive components that could not be separated. Melissa's Feelings included anger, frustration, annoyance, anxiety, insecurity, anticipation, wanting, sympathy, tension, fright, surprise, excitement, and "paranoia." In general, Somatically-Oriented Feelings and Thought/Feelings did not occur in a single sampled moment for Melissa (although in Sample #17, discussed below in the section on Multiple Feelings, both types of Feelings were present). However, multiple incidences of the same type of Feelings were a feature of 50% of Melissa's samples.

**Somatically-Oriented Feelings**

Five (36%) of the nine Feelings in Melissa's reported Feelings samples were Somatically-OrientedFeelings, possessing "physical" attributes and manifesting themselves in specific bodily locations, including her chest and upper body, her head, her spine, and her stomach. Sample #19 provided an example of such Feelings. Melissa was engaged in a spirited conversation with her mother. She was very angry, and was yelling at her mother about people who were better off than their own family. The beeper sounded while Melissa was in the process of trying to make a point (she did not remember exactly what she was saying at the time). At the moment of the beep, Melissa was aware of an angry Feeling. She described this as an intense, out-of-control kind of feeling, felt in her whole body, as well as her
head. Simultaneously, Melissa was aware of a Feeling of
tenseness in the middle of her body that she described as
being like a need to explode, as if she were trying to "pour
something out that was endless." For Melissa, the angriness
constituted the main focus of her inner experience, with the
tension remaining in the background.

Another illustration was found in Sample #24. Melissa
was sitting in front of the television set but was not
concentrating on the program. The scene on the screen had
changed while she was flipping pages in her notebook. As
the beeper sounded, Melissa had looked up from her notebook
to the screen. On the program, Quincy, one of the
characters on the program, was answering the telephone. At
the moment of the beep, she was aware in Unsymbolized
Thinking of Quincy seeming tired—she did not remember his
exact words—but his voice as perceived by Melissa was not
his usual voice, and thus was judged to be "odd" to her.
(It should be noted that this thought was not verging on
Wordless Inner Hearing because it was not perceived to be
"heard" in her inner experience.) Simultaneously, she
experienced a surprised Feeling, which she stated seemed
almost like a shock. For Melissa, it was as if her body had
actually jumped, which in reality was not the case. Melissa
described this surprised jumping as reminding her of how a
little child might jump up to greet her father arriving
home. She also was aware of a separate but related excited
Feeling, in which a "twinge" reached up from her sides on the outside of her body. For Melissa, the excited Feeling seemed to overwhelm the upper part of her body.

Thought/Feelings

Thought/Feelings, in which Melissa was aware of both an emotional and a cognitive component, were a feature of 5 (55%) of the 9 samples in which she reported experiencing Feelings. An example is provided in Sample #14. Melissa was watching *Star Trek* on television. On the program, Dr. McCoy was talking to Spock. Melissa reported that just before the beeper sounded, she had observed the look on Spock's face. At the moment of the beep, Melissa was aware of an Unsymbolized Thinking in which she was sympathizing with Spock, and a Thought/Feeling of anticipating his saying something logical to refute McCoy, something that would "take the power out of Dr. McCoy's emotion." Melissa said she was most focused on the sympathizing thought, and that it was the more long-term of the components of her inner experience. She described the Thought/Feeling of anticipation as producing contradictory effects: being "exciting," making her feel at ease, yet at the same time making her uncomfortable. She stated that the anticipation was the base for the rest of the Thought/Feeling.

Simultaneously in her inner experience, Melissa was aware of a Thought/Feeling that Spock's "greenish-reddish" eye shadow made her uncomfortable and uneasy. This was
manifested as a tenseness in her body, primarily in her upper torso; she said it was the type of tenseness she would experience if she were hunching her shoulders (which in reality she was not). She described the Thought/Feeling as a basic uneasiness. Melissa reported that the Thought/Feeling of discomfort and uneasiness was separate from the Thought/Feeling of anticipation. However, the discomfort did not wipe out the anticipation, but rather, "went along with it." Simultaneously with the Thought/Feelings, Melissa experienced an Indeterminate Visual Experience in which she was aware of Spock's eyes and his face, "seen" through the bars of his cell, as he was in the television scene. (Inner Visual Experience will be discussed more fully in a separate section below.)

Sample #16 offered another example of Thought/Feelings. Melissa was still watching television. As she watched, she was eating. She had a piece of foil in her left hand and was trying to scrape a bit of Swiss cheese off the foil with her fingers. She had the cheese halfway off when the beeper sounded. At the moment of the beep, Melissa had an Incongruent Bodily Awareness that the action of her fingers scraping the foil was "irritating" her teeth, that is, that she was aware in her inner experience of a physical discomfort in her teeth, which in reality she was not experiencing. Simultaneously, Melissa had a Thought/Feeling possessing two separate components: a desperate agitation
to get the piece of cheese, and a wanting of the piece of cheese. Melissa stated that the agitation and the wanting were perceived as separate experiences, yet both were perceived as a single tightness in her head. At the time, she was aware of being intensely focused on the cheese, and of paying attention to getting the cheese off the paper. For Melissa, it was as if the Incongruent Bodily Awareness of the irritation in her teeth as a result of her efforts to retrieve the cheese were an interruption of her wanting of the cheese.

**Multiple Feelings**

Melissa experienced Multiple Feelings, perceived as separate but simultaneous Feelings rather than a single complex Feeling, in 5 of the 9 samples in which she experienced Feelings. Sample #17 provided an example. Melissa was in her car in a parking lot, in the process of backing out of the driveway. She had just seen headlights off to her right, and when the beeper sounded, her heart was beating hard because she was afraid of being hit by the other car. At the moment of the beep, Melissa had a Bodily Awareness of the pounding of her heart. She was also aware of two Feelings: a Feeling of fright and a Thought/Feeling of "paranoia" in overreacting to the presence of the other car. She described the Feeling of fright as being deep in her body, felt in the bones of her spine as well as in the "gut" of her stomach. She likened the experience to the
feeling of butterflies in her stomach. The motion was perceived to start in her lower stomach and move upwards. For Melissa, it was not like a stream, but rather was more of a "clenching" in her stomach, and the shocks or aftereffects of that clenching raced up her spine and stomach. Melissa reported that the "paranoid" Thought/Feeling was composed both of being aware that in reality, the headlights were quite far away, so there was no real reason to fear being hit by the other car, and nevertheless experiencing a concurrent "cringing" that progressed upwards in her stomach, as well as up her spine; Melissa was aware of the same motion in the front and the back of her body simultaneously. This experience was, for Melissa, one and the same phenomenon, although she thought the cringing aspect of the Thought/Feeling was perhaps intensified by the startled reaction she had experienced when the beep sounded, as these events occurred at exactly the same moment.

Bodily Awareness

Melissa experienced Bodily Awareness in 9 (36%) of her 25 samples. Her Bodily Awareness could be categorized as Congruent Bodily Awareness, where the awareness was a reflection of her actual physical state at the moment of the beep (as described in Sample #16 in the preceding paragraph, when she was aware of the pounding of her heart) and Incongruent Bodily Awareness, where her inner experience of
bodily sensations was not consistent with reality. Bodily Awareness must be distinguished from Somatically-Oriented Feelings. Both possessed a "physical" quality but, unlike Somatically-Oriented Feelings, Bodily Awareness did not include an emotional component.

**Congruent Bodily Awareness**

Most (6 of the 8) instances of Bodily Awareness Melissa reported were Congruent Bodily Awareness consistent with her physical state at the time of the beep. In Sample #20, for example, Melissa was watching television. She was still looking at the screen and was smiling hard at a joke that had been told on the program. As the beep sounded, Melissa had just noticed that the television anchorwoman's bright red hair and the red blush from the make-up on her cheeks seemed to blend together. At the moment of the beep, Melissa was aware that she was paying attention to the blending of the hair and the make-up, and that she hadn't realized that she was doing so. Simultaneously, Melissa had a Congruent Bodily Awareness of the slight pain that was progressing upwards on the sides of her head, caused by the pressure of the smile. Melissa described this metaphorically as the sensation one would experience if someone were pushing the smile up the side of one's head.

In Sample #7, Melissa was sitting in a chair thinking about the beeping study. As the beeper sounded, Melissa had the cord of the device in her mouth and was running the cord
along her teeth. At the moment of the beep, she had a Congruent Bodily Awareness of a ticklish feeling from the cord in her face, cheeks, and head, as well as a tingling sensation on her gums. She stated that the knowledge of the origin of this tingling sensation was not part of her inner experience. Simultaneously, Melissa was aware of Incongruent Bodily Awareness of sitting sideways and thus having to turn her head to view the screen.

Three of Melissa's samples revealed instances of Incongruent Bodily Awareness, where the bodily sensations at the moment of the beep did not mirror her current physiological condition. One example was Sample #16, discussed in detail above in the section on Thought/Feelings. In that sample, Melissa had a Congruent Bodily Awareness that the action of her fingers scraping along the aluminum foil holding a left-behind fragment of cheese was "irritating" her teeth. Simultaneously, although she was sitting frontwards facing the television set, in her inner experience, Melissa had an Incongruent Bodily Awareness of sitting sideways and thus having to turn her head to view the screen.

Sample #10 also offered an example of both Congruent and Incongruent Bodily Awareness. She had been drinking
wine coolers and was eating a bowl of ice cream when she was signalled by the beeper. Although the television was on, Melissa was not paying attention to the program. At the moment of the beep, she was focusing on the Congruent Bodily Awareness of the sensations in her body, which she described as being like "pain sensations" perceived as strong pain that was hurting her. Simultaneously, Melissa had an Unsymbolized awareness that the ice cream was cold, and experienced a Congruent Bodily Awareness of a "burning sensation" in her stomach from the cold ice cream. She perceived the cold Feeling to be just beneath the surface of skin. She described it as a strong feeling, as if she'd been drinking acid, or as if a scouring pad was rubbing the inside of her stomach. (Melissa described her stomach as perceived in her inner experience as being funnel-shaped, wide at the bottom, and narrowing into a tube at the top.) She also was aware of an Incongruent Bodily Awareness that the tips of her fingers were cold (which they were not in reality).

Sample #4, discussed above in the section on Unsymbolized Thinking, offered another example of Incongruent Bodily Awareness. Melissa was angry as she was writing to the president of the company from which she had been fired. At the moment of the beep, she was aware in Unsymbolized Thinking of hoping that the company president would not think she was stupid. Although she was in reality
angry while writing the letter, at the moment of the beep, Melissa was not aware of the anger. Instead, she was aware of a Feeling of insecurity, which she described as Feeling "sort of anxious." She stated that she also was aware of not being comfortable in her own skin, an Incongruent Bodily Awareness that she was "trapped inside something" (her skin) from which she was unable to escape. Interestingly, although Melissa stated that it was a "pushing out," or an expansion of her body, she described the awareness as being located inside her head.

Inner Visual Experience

Melissa experienced Inner Visual Experience in 6 (24%) of her 25 samples. Although in general she did not report clear Images, in three samples Melissa reported Imaged words—clearly represented in her inner experience as words, either reinforcing or accompanying an idea present at the moment of the beep, or representing an integral part of the content of her inner experience at that moment. With the exception of these examples of Imaged words, Melissa's Visual Inner Experience could be characterized as Indeterminate Visual Experience, in which the experience is understood to be visual without the sensation of seeing, that is, simply knowing the visual details of a scene rather than an inner seeing of the scene.
In Sample #9, Melissa was at a friend's house, where two of her friends were sitting beside her, one on each side, both talking. Melissa was not paying attention to them, nor was she listening to their conversation. Instead, she was shouting, trying to be heard over her two friends' voices, "Remember the 20-minute workout!" when she was signalled by the beeper. The beep came at the end of the sentence. Melissa had an Unsymbolized Thinking that verged on Wordless Inner Hearing of the echo of her shouted statement. At that moment, Melissa was looking at the television screen in the room, even though the set was turned off. She reported that she could "almost see" three people exercising on the screen. The Image was incomplete; Melissa had a sense that some pieces of the picture were not in her awareness. The almost-Imaged people were perceived to be off to the side on the television screen, seen from the perspective of the cameraman filming them. Melissa's Image was centered partly on the real-life television, and partly off the screen. She perceived a faint outline of one exerciser's derrière up in the corner of the screen. She said she was aware that one of the Imaged women was wearing pink, but stated that the Image was not clear enough to tell for sure. For Melissa, the Image seemed to be "out there" in her awareness, rather than in her head. Simultaneously, Melissa experienced an Incongruent Bodily Awareness of
lunging forward to get her girl friends' attention (although she was not in fact lunging forward in reality).

Imaged words were a feature of Melissa's Inner Visual Experience in Sample #15. She was watching television. On the screen the words "Merv Griffith" were imprinted on a billboard on the side of a building. The words were tiny on the television screen, and Melissa was straining to read them. She had read the word "Merv" when the beeper sounded. At the moment of the beep, Melissa had an awareness of reading the words, which were black letters on a white background in her inner experience. The word "Merv" was clear, but she could not make out the rest of the letters, as they were "visually off the screen," so Melissa "just filled them in" in her inner experience. She reported that the words "going by" and seemed to "just come towards" her. As they were coming in, she was taking in one word at a time, not searching for their meaning.

An example of Indeterminate Visual Experience featuring Imaged words was found in Sample #3, discussed earlier in the section on Unsymbolized Thinking. Melissa was watching Punky Brewster on television. On screen, Henry, one of the show's characters, was trying to get the children in the scene to smile for a photograph he was taking by asking them to "Say 'inheritance'." At the moment of the beep, Melissa was aware of Unsymbolized Thinking, "How greedy" in what verged on Wordless Inner Hearing. The "heard" voice was
what Melissa described as "plain," in that it had no inflection. She reported that the thought was so clear in her inner experience that she visualized the words glowing, with an aura of "bluish-reddish" letters in front of her head close to her forehead. Like the voice, they were plain, the letters featuring no "fancy stuff," and were perceived to have a flat texture. The words were perceived from the perspective of looking forward towards them. Melissa stated that she saw the letters and then "Poof!" they were gone. She had a sense of the words being written out, hand-printed in perfect print, except that the "writing" was larger than hand printing would be in reality. For Melissa, it was as if vision and hearing were meshed in her inner experience.

Inner Hearing and Inner Speech

Melissa experienced Inner Hearing in two of her 25 samples, Inner Speech in one sample, and an amalgam of Inner Hearing and Inner Speech—we call it Inner Hearing/Speech—in two samples. Inner Hearing is illustrated in Sample #21. Melissa had just woken up and had put on her beeper. She was sitting up in bed, still half asleep, looking at the bedroom door. As the beeper sounded, Melissa heard word "easy" coming from the television in the living room. At the moment of the beep, the sound of the word "easy" floated in her awareness. Melissa perceived that she was "hearing"
the sound of the word fading in and out, making it seem to her to be like an echo of the word. The word "easy" was "just still there" in its entirety, not broken down into syllables.

Sample #6 offered an example of Inner Speech. Melissa was babysitting. The child's mother had just said aloud to her daughter, "That's your job." At the moment of the beep, Melissa was aware of singing in her mind, "That's my job..." The singing was perceived to be one word after another, but she was not focusing on one word at a time. For her, it was as if she were singing aloud, as if her own voice were actually producing the song, even though no sound was emitted. Melissa's voice in her inner experience seemed to her to go along with the music of the song. The sound of the song seemed to move, going around in the front of her head in a swirling action, as though the rhythm were "bouncing around." Melissa stated that it was not a deliberate movement, but rather was progressing with how she perceived the song to feel. Melissa reported that while the music was swirling, the whole focus of her attention was on the song.

Sample #27, discussed earlier in the section on Multiple Unsymbolized Thinking, provided an illustration of Inner Hearing/Speech. Melissa was in her car, stopped at a traffic light Unsymbolized Thinking several separate but related thoughts: She was thinking about the traffic, and
thinking about how slow the driving would be because the man in the car ahead of her looked to her as if he were an old man, and that because he was old, he'd be a slow driver, so traffic would be slow, but that it didn't matter if traffic was slow. Simultaneously, Melissa was aware of singing—to the tune of "Dinah Won't You Blow Your Horn"—the words, "We're here to honor you, we're here..." The beeper sounded at the second "here," but Melissa reported that it in her inner experience, it was more of a note than a word. She "just knew" the word and the note were same thing. Melissa was not able to say whether she was singing out loud (in reality) or only in her head, but the tune was part of the words, almost as if the words and the tune were one and the same.

Summary

Melissa reported Multiple Inner Experience, where many simultaneous happenings were experienced in a single sampled moment, in 60% of her samples. Her Multiple Inner Experience incorporated several different characteristics, all perceived to be separate events, yet all experienced at the same moment.

Unsymbolized Thinking, where Melissa apprehended a thought that had no observable mode of transmission, was the most prevalent of her salient characteristics. Unsymbolized Thinking—often experienced multiply—included Wordless
Inner Hearing, and Unsymbolized Thinking verging on Wordless Inner Hearing, where even though there were no words per se, the thought was understood to be heard or almost heard.

In just over one-third of her samples, Melissa experienced Feelings, sometimes multiply. Her Feelings included Somatically-Oriented Feelings, which were emotional events perceived to have a "physical" manifestation, and Thought/Feelings, which possessed both an emotional and a cognitive component.

Almost as often as Feelings, Melissa experienced Bodily Awareness. Her Bodily Awareness included both Congruent Bodily Awareness that mirrored her current physical state, and Incongruent Bodily Awareness that was not relative to her actual bodily condition.

Inner Visual Experience was reported in almost a quarter of Melissa's samples. This ranged from Indeterminate Visual Experience, which had an unequivocally visual component even though it was not a clear Image, to clear Images of words and/or sentences.

Melissa reported Inner Hearing, where the experience was understood to be heard, in two samples. She experienced Inner Speech, where she had the sense of producing the speech herself even though she was not in fact speaking, in one sample. In two samples, she was aware of an amalgam of Inner Hearing and Inner Speech, which we call Inner Hearing/Speech.
Christine

Christine (not her real name) was a 30-year-old junior high school science teacher at the time the samples of her inner experience were obtained. Christine satisfied the DSM-IIIR criteria for bulimia and considered herself to be a bulimic, although she had never been formally diagnosed. She had, however, enrolled herself in weekly therapy sessions with a group of individuals suffering from anorexia and/or bulimia. She volunteered as a subject in the present study after hearing about it from another group member. With the help and support of her therapy group, Christine was working on restraining her bulimic tendencies; at the time of sampling, she was successfully refraining from episodic binge eating and purging. She stated that she had been able to control her bulimia for considerable periods in the past and was confident she could do so again at this time.

Christine used the beeper on seven days over the course of a three week period. We discussed in depth 29 (about 90%) of those samples; this report is based on those 29 samples.

We will provide in the next few paragraphs a brief overview of Christine's inner experience as observed in
these samples, and then return to describe each characteristic in detail. Nearly all (86%) of Christine's samples were complex, many-faceted phenomena, which we call Multiple Inner Experience. The elements that were intertwined with each other included most frequently Unsymbolized Thinkings, but Feelings were also experienced multiply, including simultaneous paradoxical Feelings.

The single most salient characteristic of Christine's sampled moments was the phenomenon of Multiple Unsymbolized Inner Experience, usually several concurrent Unsymbolized Thinkings all perceived as ongoing at the moment of the beep, yet also perceived as separate events on which Christine was able to focus sequentially, one at a time. In most of her samples, Christine described the multiplicity of thoughts as being "interwoven" in her inner experience. However, in two samples, she reported the phenomenon she called "string" thinking (which we call Sensed Unsymbolized Thinking) where there was a hint of the thought—a "string" of it—in her awareness; the whole thought existed somewhere in her mind but was "parked," not actually being thought at that moment. Christine reported that such thinking was quite familiar to her.

Thus, Unsymbolized Thinking could be divided into two categories: (a) (Experienced) Unsymbolized Thinking, with or without a visual or verbal orientation but in the absence of words or images; (b) Sensed Unsymbolized Thinking, where
there was an awareness of the content of a thought that was not actually present in inner experience.

Another feature of Christine's inner experience was Feeling, which possessed two main characteristics: (1) Somatically-Oriented Feelings, which had a bodily location and a "physical" quality, in that Christine was aware of a distinct bodily manifestation. Among these Somatically-Oriented Feelings were: Anxiety, (which occasionally incorporated a slight depression), frustration, tension/stress, and "good" Feelings; and (2) Thought/Feelings, which had an emotional as well as a cognitive component. Christine reported experiencing Multiple Feelings in 34% of her samples; many of them were seemingly contradictory, or paradoxical.

In a few of her samples, Christine reported that she was conscious of Congruent Bodily Awareness, an awareness of her current physical state, which was seemingly triggered by an ongoing activity at the time of the beep, and Incongruent Bodily Awareness, which did not reflect her present physiological state.

Christine reported only one sample that included a visual Image. However, four samples included the phenomenon we have called Indeterminate Inner Visual Experience, in which the inner experience had a definite visual component in the absence of an actual image.
We turn now to discuss these characteristics in some detail.

Multiple (Experienced) Unsymbolized Thinking

Christine reported Unsymbolized Thinking in 21 (72%) of her 29 samples, most of which included multiple simultaneous thinkings. She described the majority of these occurrences of Unsymbolized Thinking to be "just there," with no perceptual mode of experience, but in 3 of the 21 samples, she experienced perceptions that were on the threshold of Wordless Inner Hearing, where words were not actually present to Christine, but where the experience seemed to be more like hearing than simply knowing the existence of the meaning. Two others verged on Wordless Inner Speech, where again, words were not actually present to Christine, yet something was perceived as almost having been spoken.

In Sample #13, Christine experienced multiple incidences of Unsymbolized Thinking at the moment of the beep; all were perceived to be in her awareness at the same time, and yet also were seemingly sequential. She had been standing in a queue outside the Department of Motor Vehicles, talking to a woman who was concerned because her driver's license expired that day. Christine was saying aloud, "In fact, I think you have a grace period after it expires." The beep sounded in the middle of the sentence. At that moment, Christine was aware of trying to decipher a
perceived contradiction in the situation: Either the woman had not had much experience in the process of renewing her license or she was young and had not had to renew her license before. At the same time, Christine thought to herself that the woman did not look young enough for this to be the case. Also simultaneously, Christine was aware of thinking that although the woman was not beautiful, she was nevertheless appealing because of her high cheekbones and the shape of her eyes. All these occurrences of Unsymbolized Thinking were in her awareness at the same time; however, Christine observed that she also could have "pulled them up and looked at any one of them" in more detail if she had so desired.

In Sample #21, another example of Multiple (Experienced) Unsymbolized Thinking, Christine was in a movie theater watching a preview for Dick Tracy when she was signalled by the beep. At that moment, she was wondering about the motivation behind the making of such movies starring comic book heroes. In Unsymbolized Thinking, she was wondering if the object was to get the characters back into the kids' lives, or whether profit was the motive, with the relationship between children and comic book heroes being a collateral effect. Simultaneously, Christine was aware of making a distinction between the two motives and of hoping that profit was not the overriding motivation for making those types of movies. All aspects of the thought
seemed to her to be "interwoven," as if they were all there in her awareness at once, yet she was aware of being able to focus sequentially on one part of a thought, then another.

Sample #30 was another example of Multiple (Experienced) Unsymbolized Thinking. Christine had just said, "Hi. How are you?" to one of her students who had arrived carrying an exhibit for her class Science Fair. At the moment of the beep, Christine experienced several simultaneous occurrences of Unsymbolized Thinking which, if put into words, might be: "It's small...What is it?...Where's her model?...She's a good kid." As in Sample #21 above, she described these thoughts as being sequential, as if somehow "braided together," overlapping in time but also coming one after the other. Simultaneously with the Unsymbolized Thinking, Christine also experienced two separate Feelings: A fleeting, warm Feeling that might be expressed as "She's a good kid!" and a continuous anxious awareness, felt in the left side of her heart, of all the things Christine had to do that day.

In Sample #9, Christine was saying to her son, "I found your shoes in the clothes' basket" when she was signalled by the beep. At that moment, Christine was thinking in Unsymbolized Thinking separate but simultaneous thoughts: that she should not react to the anger her son was displaying, and that she should not show she was in any way impressed by his anger. Also simultaneously, and also in
Unsymbolized Thinking, Christine was reiterating the meaning of "logical consequences," a concept she had learned in her university Child Guidance class.

Another example of Unsymbolized Thinking is found in Sample #11. As the beep sounded, Christine was reexperiencing the Feeling of tenseness she had felt during the viewing of a horror movie the previous evening. She was recalling a particular scene and was remembering that she had exclaimed to her husband, "I can't stand this!" The Feeling of tenseness, which mirrored the original Feeling she had experienced while watching the suspense film, was perceived to be a suspenseful, clutching kind of Feeling, located on the surface of and deep down inside her upper trunk.

At the same time, several related themes were in Unsymbolized Thinking in the background of Christine's inner experience: The meaning of her interaction with her husband as they watched the movie together; the remembering that earlier in the day, her husband had been concerned that viewing a film might constitute passive avoidance of one another; and the coming to the conclusion that this was not the case. Simultaneously, in what Christine described as a "flash," she experienced a presentiment of one of the film's characters. This was not an Image, but rather a sense of the darkness of the woman's hair, the paleness of her face, and her large eyes.
In Sample #7, Christine was in the kitchen making lunch for the following day. She had been laughing at an amusing situation on a television program, The Marshall Chronicles, that she was hearing from the next room, and thinking that the actor's timing was good. At the moment of the beep, Christine was feeling in her body the subsiding of the laugh. At the same time, in Unsymbolized Thinking, she had an awareness of the word "witty" and of appreciation of the wittiness of the sequence on the television program.

In Sample #4, Christine was aware of Unsymbolized Thinking that verged on Wordless Inner Hearing and Wordless Inner Speech. She was driving her car, mentally reviewing what she must do to make her classroom appear organized and effective for a visit from the principal of another school. At the moment of the beep, Christine was aware of a Feeling of tenseness inside her head; it seemed to Christine as if her brain were pressing against her skull. Simultaneously, she experienced an anxious Feeling inside her chest on the right side of her heart. Additionally, at the moment of the beep, Christine was aware of an Image of her classroom as if from the perspective of standing at the classroom door at the opposite side of the room from her desk. According to her description, it seemed that for Christine, the Image was more a series of scenes of her classroom (the chalkboard, the bulletin board, her desk), all in color but not vivid.
At the same time, she had a sense of "hearing" a series of thoughts, all present simultaneously, which if put into words (although no words were actually heard) might be: "I'll need to clean more...I'll need to make sure the room looks organized...I wonder what she'll consider good enough." There was some emphasis on need and organized even though it was not the words themselves that were being emphasized. Also simultaneously, Christine was aware of the isolated concepts "colorful" and "bulletin boards." She "heard" the thoughts and concepts spoken in what seemed to be a softer version of her own voice, yet she had no sense of her own voice speaking. Furthermore, she was not aware of actually hearing the particular words. Thus, Christine was aware of a process that involved the sense of hearing, even though it did not include the hearing of the words themselves.

When subjects are absolutely confident of their description of this type of phenomenon, we refer to it as Wordless Inner Hearing. In this case, Christine had difficulty making the distinction between Unsymbolized Thinking and Wordless Inner Hearing, so we prefer to call it Unsymbolized Thinking verging on Wordless Inner Hearing. Perhaps if we were to have sampled longer with Christine, she might have been able to differentiate this process more clearly.
Another example of Unsymbolized Thinking on the threshold of Wordless Inner Hearing was found in Sample #29. Christine had been walking in the hallway at her school, playing at arm wrestling with her son. She was smiling at something he had said. Another teacher passed by and observed, "Your morning's starting off tough." As the beep sounded, Christine was wondering if she had been rude in not responding to the teacher. Also simultaneously at the moment of the beep, Christine was aware of a fragment of the teacher's comment remaining in her mind, and the comment was reverberating as though she "heard" the words being repeated, one word at a time, although she was not "hearing" the words per se, and she had no sense of producing the words herself; nor were they perceived as being in either her own or the passing teacher's voice.

In Sample #20, Christine's inner experience again verged on Wordless Inner Hearing. She was on the telephone in the lobby of a movie theater, explaining to her husband what their son's doctor had told her during a visit earlier in the day. She had just said aloud, "I picked up some Dimetapp..." when the beep sounded. At that moment, Christine was recalling a list of medications her doctor had told her about. The recollection was perceived to be in words spoken in her own voice, rather than the doctor's, but it was not Christine's regular speaking voice, and it was not as if she were saying the words in the list,
"Sudafed...Actifed...Dimetapp," but rather as if she heard them in her thoughts before she actually spoke them. Furthermore, no words were present in reality in her inner experience.

Multiple Sensed Unsymbolized Thinking

In one of her samples, Christine reported the phenomenon of Multiple Sensed Unsymbolized Thinking: the ongoing awareness that a thought was somehow present in consciousness but which was not currently being thought. That is, Sensed Unsymbolized Thinking was the knowledge that a thought was present, but was somehow "on hold" or "parked."

The example of Multiple Sensed Unsymbolized Thinking was in Sample #24. Christine was sitting in her evening class at the university, waiting for the lecture to begin. At the moment of the beep, she was leafing through a summer class schedule, searching for a particular registration policy and saying aloud to a classmate, "Why would they tell you in a catalog that you can register in advance when you can't?" At that moment, Christine was aware of three Unsymbolized Thinkings experienced simultaneously yet separately. Two of the three Thinkings were examples of what we call Multiple Experienced Unsymbolized Thinkings, and each of these two was composed of several "subthoughts."
The third of the three simultaneous thinkings was Sensed Unsymbolized Thinking.

The first Multiple Experienced Unsymbolized Thinking involved three simultaneous subthoughts. Christine was thinking: (1) About showing her classmate the advance registration option; (2) That she wanted to show her friend that the policy was indeed stated in the catalog; and (3) That she wanted to help her classmate. A questioning, confused Thought/Feeling (to be explored in the Feelings section below) accompanied these thoughts.

The second simultaneous Multiple Experienced Unsymbolized Thinking again involved three subthoughts. Christine was thinking: (1) That the inclusion of the statement about advance registration in the schedule seemed pointless because no one would benefit, since students could not register early; and she was wondering (2) How the statement would facilitate anyone and (3) Why the university bothered to put the information in the catalog when it did not seem to be helpful.

The third simultaneous thought was Sensed Unsymbolized Thinking. Christine was wondering why the university would handle their registration policy in such a manner. However, the whole of this thought was not in her awareness explicitly; rather, there was just a hint of it, what Christine called a "string" of the thought. The thought itself existed as having "gone off," as being "suspended" or
"on hold" somewhere in her mind, but she was still aware of the slight pull of it, which she called the "string." The string, which was somehow "attached" to the thought, was actually present in her awareness, but was itself small; the whole thought about the registration policy existed as an entity, but was not in itself in awareness. The string that was attached to it signalled its existence and its availability as something to which Christine could return.

We wish to make this rather difficult phenomenon explicitly clear. The wondering about the university registration was, at the moment of the beep, a concretely existing thought for Christine; but it existed in a suspended, outside-of-awareness manner. It was not the case that Christine simply knew she should return to thinking about university registration at some later time: Instead, the thought was somehow there, present in her mind but outside her direct awareness. Inside her direct awareness was the "string," that is, the awareness that the thought was there awaiting her attention.

Feelings

Christine reported Feelings in 20 (69%) of her 29 samples. Christine's Feelings could be divided into two categories: Somatically-Oriented Feelings, including anxiety, frustration, tension/stress, as well as "good" Feelings; and Thought/Feelings, possessing both cognitive and emotional components. All these Feelings were directly
experienced in Christine's awareness, in contrast to one
Feeling state that was "sensed" to be existing outside
awareness, which will be described in a separate section.

**Experienced Feelings**

Christine gave clear, simple descriptions of the
Feelings she experienced at the moment of the beep, but the
phenomena she was describing were often quite complex. It
soon became evident that this complexity existed in two
forms: Occasionally, a Feeling would itself be complex; for
example, an anxiety that included a depressed, sad,
enervated aspect. On other occasions, the complexity came
from the fact that two or many separate Feelings would exist
simultaneously, not as aspects of each other but as
separate, distinct, but concurrent Feelings. We called this
latter phenomenon Multiple Feelings, and wish to reemphasize
that it involves separate simultaneous Feelings, not a
complex single Feeling.

**Multiple Feelings**

In just over one-third of the samples (10 of 29),
Christine reported more than one Feeling, sometimes several,
each of which she perceived as a separate inner experience.
In Sample #4, for example, (discussed in an earlier
description of Unsymbolized Thinking) Christine was aware of
two distinct Feelings at the moment of the beep, tenseness
and anxiety. These Feelings seemed to her to spring from
the situation with which she was concerned at the moment.
The principal from another school was scheduled to observe her teaching her class and Christine was concerned about the impression her classroom would make on the important visitor. At the moment of the beep, Christine was Feeling anxious, which manifested itself as a feeling of discomfort in her chest, specifically, at the right side of her heart. She was also Feeling tense, which for Christine was an entirely separate phenomenon from the anxiety. The tension was perceived to be located inside her head.

**Contradictory feelings.** In half of the cases of Multiple Feelings, the simultaneous Feelings were perceived to be in some way contradictory with each other. An example of this paradoxical phenomenon is found in Sample #23. Christine was driving her car, listening to a Joe Cocker song on the radio and singing along "...Lift us up...." At the same time, she was reflecting on an earlier telephone conversation she'd had with the principal of another school, during which the principal had expressed a desire to have Christine teach at the other school. As the beep sounded, Christine was experiencing a "good" feeling, "warm and bubbly," in the center of her heart, radiating outward within her chest. She understood this good feeling as springing from two distinct sources, the job offer and the music.

Concurrently with the good, warm Feeling, Christine experienced a slight anxiety that manifested itself in the
left side of her heart, and a stressful Feeling felt in her head. As she described it, the anxiety and the stressful Feelings seemed almost to be in competition with the warm, bubbly feeling, although the warm feeling, on which Christine was focused when signalled by the beep, was perceived to be the dominant, overriding one.

Simultaneous with these two Feelings, Christine had a Congruent Bodily Awareness (to be discussed in detail in a separate section below) in the form of a slight headache, felt inside the front of her skull as a pushy, throbby feeling. Also simultaneously, Christine was aware of having a knot in her stomach, the result of having bolted down her lunch. She perceived this Bodily Awareness to be in the background of her inner experience; accompanying this Bodily Awareness was an Unsymbolized Thought, which, if put into words, might be, "Oh, it's still there!"

We refer to these two Feelings as "contradictory" to underscore the fact that the Feelings were distinctly different: good and warm as contrasted with anxious and stressful. These dramatically different Feelings nonetheless existed simultaneously.

Another example of Contradictory Feelings was found in Sample #28, (which, incidentally, represents the only sample in which Christine reported experiencing Multiple Feelings possessing both the characteristics of her Feelings:
Somatically-Oriented Feelings, and Thought/Feelings, each described in more detail below).

In Sample #28, Christine was in her car driving to school. At the moment of the beep, while she was reexperiencing the way she had felt when she was thin, she was aware of a joyous Somatically-Oriented Feeling experienced as a spontaneous lightness—a "rush" in her face and chest. Simultaneously, she was aware of an Incongruent Bodily Awareness of the heavy, boneless, puffiness she was experiencing in her body now. The heaviness was perceived to be located primarily in Christine's thighs and in her chin area, and was accompanied by a Feeling that was for Christine like being in mourning, sad and wishful. The ponderous, puffy feeling had the effect of making Christine seem somehow "extra." The location of this Incongruent Bodily Awareness, her thighs and around her chin—were areas about which she was excessively conscious whenever she gained weight.

Also at the moment of the beep, Christine was aware of a Thought/Feeling in which she was imaginally involved in a conversation with her husband, during which she was acting in a light, spontaneous way, feeling the lightness of her body, feeling thin and knowing she was thin.

Also at the same moment, Christine was cognizant of actively, cognitively comparing her reexperienced "joyously thin" Feeling with her Incongruent Bodily Awareness of the
heaviness. In the joyously thin Feeling, she was noticing the lightness in the front of her face, in direct contrast to the heavy, puffy, slow Bodily Awareness, which was more in her thighs and chin.

In Sample #29 (already discussed in the section on Unsymbolized Thinking), Christine simultaneously experienced two separate and contradictory Feelings, both in the chest area. She had been acting playfully with her son in the school corridor when another teacher had gone by and made a comment. At the moment of the beep, Christine was smiling at something her son had said, and at the same time was concerned that the other teacher might think her rude for not responding to her remark. Christine was aware of a Somatically-Oriented Feeling of slight anxiety, felt in the left side of her heart. At the same time, she was also aware of another Somatically-Oriented "good" Feeling, murmuring and bubbling through the middle of her chest, as well as in front of her face. She experienced both Feelings in the same general area in her chest, but in different locations.

**Somatically-Oriented Feelings**

Christine experienced Somatically-Oriented Feelings, where the phenomenon of emotion had a clear physical focus, in 15 of 29, or over half of her samples. She was fairly consistently able to localize these corporeal Feelings in specific areas of her body. Some emotions, such as anxiety,
were felt to exist in precisely the same bodily location each time it occurred; however, other emotions, such as frustration, were located in different parts of the body at different occurrences.

Christine described Somatically-Oriented Feelings as being either "active" or "passive"; furthermore, she understood Feelings to be "good" or "bad." Active Feelings were perceived as involving "physical" movement of the sensations within her body: Such Feelings were "bubbly," "trickled down," "radiated" or spread within her body, or were "clutching," "pressing," or "pulling." Interestingly, in all five of the cases in which Christine described Feelings as "good," she also categorized them as active Feelings; however, not all active Feelings were "good" Feelings.

Passive Feelings were perceived as being more stationary, "there" in Christine's awareness but not mobile. She described Passive Feelings as happening to her, rather than being a process in which she was a participant.

Anxiety. Christine reported Feeling anxious in 8 of her 29 samples. For her, anxiety was an active type of feeling synonymous with feeling pulled or "harried." For Christine, the Feeling of anxiety always manifested itself as a physical sort of discomfort specifically located deep inside her chest, just left of center, at the right side of her heart. On a few occasions, a slight depression was
incorporated into the anxiety, adding another dimension, described as a "sadness or lowness," a "lack of energy," an unsettling "sunken feeling."

**Frustration.** Christine described another active type of Feeling we will call frustration in 2 of her 29 samples. She depicted it as a helpless type of feeling, a "bottled up" sensation, an agitation manifested as a physical "burning" type of feeling throughout her upper body. An example is found in Sample #3. Christine had just hung up from the second disturbing telephone call from her ex-husband when signalled by the beep. At that moment, she was aware of an agitated, frustrated Feeling, which she described as being "really tight" all over her upper body.

**Tension/Stress.** Christine experienced Feelings of tension and/or stress in 2 of her 29 samples. In both cases, Samples #4 and #23, (described at some length in the section on Contradictory Feelings above) the tension or stressful Feeling was an active Feeling, felt as a pressing inside her head.

**Thought/Feelings**

Christine reported Thought/Feelings in 11 of her 29 samples (38%). She described these as Feelings that are a merging of both emotional and cognitive events. She stated that, for her, Thought/Feelings are "the other side of intellectualizing." Although Christine reported such experiences as being not as "physical" as Somatically-
Oriented Feelings, she stated that they did in fact possess a physical component, in that there was a sense of Somatically-Oriented distress or urgency that may or may not be experienced as localized in a particular part of the body. From a cognitive standpoint, Christine viewed Thought/Feelings as "fuddling" her mind, clouding or otherwise influencing her thinking processes. Christine's Thought/Feelings often appeared to incorporate an underlying sense of urgency, a need to get something done.

One illustration of Thought/Feeling was Sample #26. Christine was in an evening class watching a film about teenage suicide. In the film, a father was saying to his adolescent child, "I've decided I'm going to spend a lot less time telling you how to live your life." At the moment of the beep, in Unsymbolized Thinking, Christine was aware that, even though she had often given her own son some leeway, she ought to do so more often. Simultaneously, Christine had a Thought/Feeling that comprised a sense of admitting to having made a mistake, which she experienced as a "right" kind of feeling of relief in the center of her body, in the chest area. The cognitive aspect of this experience, that she had made a mistake and was admitting it was right, and the feeling aspect, in her chest, were not at all separate. It was as if she were thinking the thought in her chest.
Sample #14 provides another example of a Thought/Feeling. Christine had been searching through the contents of her purse, trying to locate some object, when she came upon her address book. As the beep sounded, Christine was thinking in Unsymbolized Thinking that since she had not heard from her aunt in a week, it might mean that everything was all right with her grandmother, who had been ill. At the same time, she was Thought/Feeling a sense of urgency to telephone her aunt, a feeling that was perceived by Christine to be located in her chest area. Here again, the cognitive aspect of the Thought/Feeling experience—the need to telephone—was not separable from the felt aspect in her chest.

Sensed Feelings

As pointed out earlier, we have distinguished between Experienced and Sensed phenomena. All the Feelings we have described so far in this chapter have been Experienced Feelings—emotions whose content and bodily aspects were directly present in Christine's awareness. Christine had one sample of Sensed Feeling, where the knowledge that an emotional experience was ongoing within herself was a piece of her awareness, but where the emotional experience itself was not part of awareness.

In Sample #27, Christine was in her evening class, where the professor was going over the test the class had
taken the previous week. The primary focus of Christine's inner experience was an (Experienced) Feeling of frustration, directly experienced as tension in the middle of her upper body (a Somatically-Oriented Feeling). At the moment of the beep, she understood that the frustration was the result of having responded incorrectly to an item based on the information the professor had given in answer to Christine's request for clarification during the test. This understanding was expressed as an Unsymbolized Thinking which, while nonverbal, might be expressed as, "This was the question I asked you about, and you answered a certain way, and now I got it wrong." Also present at the moment of the beep was a Sensed Thought/Feeling of confusion, a muddled Thought/Feeling which, if put into words, might be "What is it that I missed?" and, "Now, wait a minute!" and, "Have I misinterpreted?" However, these Thought/Feelings of confusion were themselves not being directly experienced. Instead, only the "string" of this awareness was currently in Christine's consciousness. The whole confused awareness was temporarily set aside, not currently focused on, but was there waiting for her to get back to and address. The "string" of this awareness was a part of Christine's ongoing experience: A small piece of this confusion was displayed in her awareness, along with the Unsymbolized Thinking, reminding her that the unfinished confusion awaited her attention. Additionally, Christine had a related Sensed
Unsymbolized Thinking that she could take care of the problem later, and that she would speak to the professor about the matter after class.

Bodily Awareness

Christine was aware of bodily sensations which did not have a particular emotional significance in 6 (21%) of her 29 samples. We call this phenomenon Bodily Awareness to differentiate the experience from Feelings, which, as we have seen, also often possess a "physical" quality but which include an emotional content. Christine's Bodily Awareness was either Congruent Bodily Awareness--often triggered by an activity ongoing at the moment of the beep--that accurately reflected her physical state at the time, or Incongruent Bodily Awareness that did not mirror her actual somatic state at the moment of the beep.

Congruent Bodily Awareness

One example of Congruent Bodily Awareness was Sample #8. Christine was removing clothes from her dryer and came upon a T-shirt imprinted with the words "South Wind," the name of her softball team's sponsor. In Unsymbolized Thinking, she was reiterating the words in her head and articulating them, although there were no words per se in her awareness. At the same moment, seeing the name on the shirt triggered the awareness of a soreness in her body resulting from her first softball practice of the season; it
was strictly a physical sensation with no emotion attached.

In Sample #19, Christine had picked up some food from the take-out window of a fast food restaurant and was driving down the exit ramp. At the moment of the beep, she was thinking in Unsymbolized Thinking that she ought to move quickly so that the woman in the car behind her would not become impatient and honk at her to move on. Simultaneously, Christine felt the presence of the person in the car behind her, a Bodily Awareness (rather than a Feeling) of being approached, a sense of someone getting closer. For Christine, it was as though someone were entering her personal space, pressing her to move on. The awareness was perceived to be located in the back of her upper body, neck and head, but did not have emotional significance.

Sample #23, already described in the Contradictory Feelings section above, affords an example of the complexity of Christine's Somatically-Oriented Feelings and Bodily Awarenesses. This was the sample which occurred while she was listening to a Joe Cocker song on her car radio; her experience at that moment included two contradictory feelings (a bubbly warmth and an anxiety) which were in competition with each other, two Congruent Bodily Awarenesses (a headache and a knot in her stomach), as well as an Unsymbolized Thinking.
Incongruent Bodily Awareness

Both instances of Christine's Incongruent Bodily Awareness (which she attributed to her bulimia) were sensations of "puffiness." Although she experienced these in only 2 of the 29 samples discussed in depth, Christine indicated that she experiences this "puffy" sensation periodically in her everyday life, and stated that it was more common when she was actively binge eating and purging (which, as we pointed out earlier, was not the case at the time of sampling). This phenomenon, which she described as "feeling being fat," is distinguished from Somatically-Oriented Feelings in that the perception of "puffiness" experienced when Christine was "feeling being fat" was not an emotional experience.

In Sample #1, Christine described puffiness as "a feeling of feeling the weight," a perception involving feeling her body expanding against her skin, almost as if her inner body were growing larger, moving outward in the areas with which she is the least satisfied: her upper arms, hips, and face. For Christine, it was a sense of her body inflating at its peripheries, a "growing" that did not include expansion of her inner organs. As the puffiness set in, Christine was cognizant of a consciousness of "feeling being fat," a concept that was to emerge again in Sample #28.
In that sample, described in the earlier section on Contradictory Feelings, Christine was reexperiencing how it felt for her to be thin, and was comparing the remembered thin feeling to the heavy, boneless, puffy Incongruent Bodily Awareness she was experiencing as the beeper sounded. Christine described the puffiness as puffiness that she herself created, rather than a puffiness that happens to her, as was true in Sample #1; the puffiness was equally intense in both samples.

Inner Visual Experience

Christine reported one clear Image and four samples (14%) where her experience was rather clearly one of inner visualization but where the characteristics of the Image were difficult to specify, the phenomenon we call Indeterminate Inner Visual Experience.

Images

The sole Image Christine reported was in Sample #4, described earlier in the section on Unsymbolized Thinking. At the time of this sample, she had been thinking about preparing her classroom for a visiting principal's visit. At the moment of the beep, Christine was aware of an Image of her classroom, in color, although the Image was not a vivid Image. The experience was the seeing of a series of scenes of her classroom. All were present in her awareness simultaneously, yet she focused separately on each scene, a process she referred to as "scanning." At the moment of the
beep, Christine was scanning the Image clockwise, from the perspective of standing at the classroom door at the opposite side of the room from her desk (as it is situated in reality). She started her visual scanning at her desk, which seemed to Christine to be more distant than it would be from that vantage point in reality. At first the desk was out of focus, but as she imaginally scanned it, the desk became "pretty crisp." Next she scanned past the chalkboard to the bulletin board, picking out various displays and focusing on them. Simultaneously with the scanned images, Christine was aware of Unsymbolized Thinking about getting the classroom ready for the visiting principal: needing to clean, needing to make sure the room looked organized. At the same time, she was aware of the concepts "colorful" and "bulletin boards," although not the words per se.

Indeterminate Visual Experience

In Sample #27 (discussed above in the section on Sensed Feelings), Christine was remembering how she had consulted with the professor of her evening class about an item on the test she was taking. Christine was visually aware of herself walking up to the professor's table in the front of the room, "seen" from the perspective of her seat in the classroom. She "saw" herself from the side, leaning over the table, pencil in hand. She was cognizant of both her own and the professor's upper bodies leaning over the table, but had no sense of the clothes they were wearing, only the
knowledge that her forearm was bare. However, these seeings were not as clear as the seeings in the classroom described above: She was not sure whether she "saw" the pencil or just knew it was there, for example. The only portion of the scene which she was confident of actually seeing was her bare forearm. This lack of clarity of the distinction between seeing in inner experience and simply knowing the visual details of the scene is the feature which leads us to call such an experience Indeterminate.

Sample #28 (described above and in the section on Contradictory Feelings) included another example of Indeterminate Inner Visual Experience. Christine was reexperiencing being thin, and was at the same time imagining herself in a conversation with her husband, "seeing" herself acting in a light, spontaneous manner—the way she remembered acting when she was thin. She "saw" herself full-face, but she had little access to the visual details of the image. She could say, for example, that only her face, not her whole body was being "seen," but she could not be more explicit. Furthermore, her husband was known to be in the scene but was not being visualized; Christine simply sensed an awareness of his presence.

Summary

Multiple Inner Experience was the rule for Christine, rather than the exception. In the majority of her reported
samples, Christine was aware of Feelings, often two or more, as well as Unsymbolized Thinking and Sensed Unsymbolized Thinking. She perceived all her inner experiences to be occurring both concurrently and consecutively, in a pattern she described as "interwoven" or "braided together."

Christine's samples required that we make the distinction between Experienced and Sensed awareness, where the process itself was intact but suspended outside immediate awareness, and where only a "string" which connected to the process was part of current awareness.

Christine reported experiencing Feelings almost as often as she did Unsymbolized Thinking. For her, Feelings were Somatically-Oriented, possessing bodily localizations and a "physical" quality, perceived as either active or passive, and included anxiety, frustration, tension/stress, and "good" Feelings; and Thought/Feelings, possessing both an emotional and a cognitive component. Often, Christine experienced more than one Feeling in any given sample, and many of Christine's samples contained Contradictory Feelings that appeared to be in competition with one another.

Christine experienced both Congruent Bodily Awareness that reflected her actual physical state and Incongruent Bodily Awareness, which did not mirror her physiological condition at the time of the beep.

Christine reported only one Image in her samples. That Image had qualities similar to her Multiple Unsymbolized
Experience and her Multiple Feelings, in that it was more a series of images than one Image, all present in awareness simultaneously, yet on which Christine was able to focus separately. Additionally, Christine experienced several occurrences of Indeterminate Inner Visual Experience that, while not clearly Images, nonetheless had an unequivocally visual component and provided the sensation of "seeing."
Chapter 8

Monica

Monica (not her real name), the subject of this chapter, was an 18-year-old college student at the time of sampling. She also worked part time at night in a retail book-and-video store catering to patrons seeking "adult" entertainment. Monica described herself as a long-time bulimic, having suffered from the eating disorder since the age of thirteen. She reported that she had been hospitalized at least twice in the past for bulimia and was currently under the care of a therapist, with whom she met weekly. She was actively binge eating and purging during the period when these samples of her inner experience were taken.

Monica volunteered to take part in this study when it was announced in her introductory psychology class that we were searching for bulimic individuals to participate in the project. She stated that she was interested in perhaps discovering more about herself and her bulimic urges through sampling her inner experience. Monica used the beeper during four days over a period of just over two weeks. On the fifteenth day—which incidentally marked the only occasion during which she had been sampling when she was actively purging—Monica announced that she wanted to quit.
the project because wearing the beeper made purging too difficult for her, in that her habit was to purge until she falls asleep, and having the beeper on, she claimed, kept her awake.

Monica's sampled moments were for the most part rather complex, multi-faceted phenomena. Thus, we were able to discuss only 19 samples in depth, representing approximately two-thirds of the total samples she collected. This chapter is based on those 19 samples.

The most prominent aspect of Monica's inner experience as observed in her samples was the phenomenon we call Multiple Inner Experience, in which several concurrent elements of inner experience are perceived to be ongoing simultaneously, yet are identifiable by the subject as separable happenings that can be focused on sequentially. Multiple Inner Experience was the rule rather than the exception for Monica, as she experienced multiple experiences in the majority (84%) of her samples. In these samples, many events were perceived to be in her awareness at the moment of the beep, experienced as interwoven yet readily separable elements. In most of Monica's samples, the multiple inner events were composed of a variety of different aspects, although she also reported occasions where she was aware of Multiple Unsymbolized Thinkings and Multiple Feelings.
In describing Monica's samples, it is necessary to distinguish between Experienced awareness and the somewhat difficult-to-describe phenomenon, Sensed awareness. In Experienced awareness, she was directly aware of the contents of a particular thought or Feeling, whereas in Sensed awareness, even though she knew the contents of the thought or Feeling and was aware that the thought or feeling process was somehow ongoing at the moment of the beep, the thought or Feeling itself was outside her awareness.

Before proceeding to describe Monica's inner experience in detail, we will begin with a brief, rather general description of the salient characteristics of her sampled moments. Feelings were the most frequently experienced of Monica's characteristics, having been reported in 84% of her samples. Her Feelings could be divided into three categories: (1) Experienced Feelings (88% of the Feelings samples), where the Feelings were directly in Monica's awareness. Most of these Feelings were Somatically-Oriented Feelings, featuring a "physical" manifestation in a specific bodily location; (2) Sensed Feelings (13% of the Feelings samples), where the Feeling was not actually present in inner experience, but was nevertheless known; and (3) Thought/Feelings (19% of the Feelings samples), possessing both emotional and cognitive elements.

Unsymbolized Thinking also was a frequently experienced characteristic in Monica's samples (found in 74% of the
samples). Her Unsymbolized Thinking could be divided into two categories: (1) Experienced Unsymbolized Thinking (which comprised 79% of the Unsymbolized Thinking samples), which may or may not have a visual or verbal orientation, but was experienced in the absence of actual words, Images, Feelings, or other symbols; and (2) Sensed Unsymbolized Thinking (50% of the Unsymbolized Thinking samples), where only the content of a thought was in her awareness, not the thought itself.

Monica reported experiencing Images in 53% of her samples. All her Images were perceived to be in color, ranging from colorful to grayish-black, but all were congruent with reality. Although her Images ranged in clarity from very clear to very indistinct, most were reported to be clear.

In 16% of her samples, Monica experienced Inner Speech; she experienced Inner Hearing in two of her samples, and Bodily Awareness of her current physical state in one of her samples.

We proceed now to more detailed discussion of the salient characteristics of Monica's inner experience.

Multiple Inner Experience

Monica reported being aware of several concurrent thoughts, Feelings, and other aspects of in her inner experience, all perceived to be ongoing simultaneously--a
phenomenon we call Multiple Inner Experience—in 16 (84%) of her 19 samples. In most incidences of Multiple Inner Experience, many different characteristics were represented in a single sampled moment. In Sample #17, for example, Monica reported Experienced Unsymbolized Thinking, two distinct Experienced Feelings, Unsymbolized Thinking on the threshold of Wordless Inner Speech, and a two-part Sensed Unsymbolized Thinking. In that sample, Monica was writing a report on wife abuse for a paper that was due that day. At the moment of the beep, she was trying to word a sentence and was Unsymbolized Thinking the concepts "monogamous" and "loyalty." This Unsymbolized Thinking verged on Wordless Inner Speech in that she did not perceive these thoughts to be in words per se, but nonetheless it was as if she were saying the words to herself. Monica explained that she experienced the concepts "monogamous" and "loyalty" randomly because she couldn't fit them together properly; for her, the concepts were "jumbled up" and, simultaneously with this Unsymbolized Thinking, she had another Unsymbolized Thinking in which she was trying to decide which word order sounded correct. Also simultaneously, Monica was aware of two Experienced Feelings, stress and anxiety. She stated that these two Feelings were "mixed together," or intertwined, and were felt simultaneously, even though they were perceived as being separate Feelings. The anxiety Feeling manifested itself in her arms, as if it were in her veins
and somehow was traveling down her arms through her veins. She described this as an aggravating kind of "tingly" sensation progressing down her arms, a "terrible" Feeling, according to Monica. The stress Feeling, on the other hand, was felt deep in the upper middle of her chest. Monica stated that the stressful Feeling was a "pressured" sort of Feeling, whereas the anxiety was more of a "worried" Feeling. Also at the same time at the moment of the beep, she experienced a two-pronged Sensed Unsymbolized Thinking that she described as an awareness of knowing that her report was due, and also knowing that she couldn't think of how to word the material she wanted to write. Monica knew these thoughts—the report being due and her difficulty in writing it—were ongoing at the moment of the beep, and she knew the contents of the thoughts, but the thoughts themselves were outside her awareness. As Monica described the experience, she was not thinking them, exactly, but just knew the what both thoughts were about. She reported that these were not two separate thoughts, but were intertwined. They were not part of her central awareness at the moment of the beep but were, as Monica put it, "there, somehow."

In another illustration of Multiple Inner Experience (Sample #10), Monica experienced an Image, Inner Hearing, Experienced Unsymbolized Thinking, and Sensed Unsymbolized Thinking. She was thinking of calling the nightclub where she was employed to find out if she was scheduled to work
that day. As the beep sounded, Monica experienced an Image of the office where she worked, seen from the perspective of the doorway. In the Imaged office, Monica saw her stool, desktop, cash register, and light in the small, closet-like cubicle, just as it existed in reality. Although Monica's Image was not perceived to be in great detail, she could discern that the stool was behind the cash register, that there were objects on either side of the register, and that the cubicle was lit with a red light with a reddish shade, in congruence with reality. Simultaneously with the Image at the moment of the beep, Monica heard in Inner Hearing her own voice with her own inflection saying the words, "I wonder if I work today." At the same time as this Inner Hearing, Monica was aware of an Unsymbolized Thought in the back of her awareness that if expressed in words would be, "If I do, I do, if I don't, I don't." Also at the moment of the beep, concurrently with the Image, the Inner Hearing, and the Experienced Unsymbolized Thinking, Monica had a Sensed Unsymbolized Thinking that she didn't care much about her job. She was aware that the notion of not caring about her job was ongoing somewhere in her awareness even though the thought itself was not in her awareness at the moment of the beep.

In addition to experiencing Multiple Inner Experiences incorporating several different characteristics, Monica also experienced multiple incidences of single characteristics,
such as Multiple Feelings and Multiple Unsymbolized Thinkings, all perceived to be taking place at the moment of the beep. These will be explored in the sections dealing with those respective characteristics.

Feelings

Feelings were the most commonly reported phenomenon in Monica's inner experience (some experienced multiply). They occurred in 16 (84%) of her 19 samples. As we have pointed out, it is necessary to distinguish between Experienced and Sensed awareness. Therefore, Feelings are here divided into three classifications: (1) Experienced Feelings (88% of Feelings samples), where the Feelings, which included a wide variety of emotions, were directly in Monica's awareness. Most of her Experienced Feelings were Somatically-Oriented Feelings, in that they exhibited a corporeal or "physical" quality, and were perceived to be manifested in specific areas of her body; (2) Sensed Feelings (13% of Feelings samples), where the Feelings were known to be ongoing even though the Feelings themselves were not actually present in Monica's awareness at the moment of the beep; and (3) Thought/Feelings (19% of Feelings samples), where the Feeling possessed a cognitive or "intellectual" as well as an emotional component. In some of her samples, Monica was aware of experiencing Multiple Feelings.
Experienced Feelings

Experienced Feelings were those perceived to be experienced directly in Monica's consciousness. These Feelings (all but one were Somatically-Oriented Feelings with a "physical" quality and a bodily location) were reported in 14 (88%) of the 16 samples in which Feelings were reported. Most of Monica's reported Experienced Feelings were negative: anger, hurt, dread, resignation, depression, disgust, guilt, sadness, panic, annoyance, stress, and anxiety. However, in two instances she experienced positive Feelings: happiness and energy.

Sample #7 provided an illustration of a Somatically-Oriented Experienced Feeling of happiness. At the moment of the beep, Monica had an Image of Charlene, her therapist, sitting in her chair with her feet up on a table, laughing. Simultaneously, Monica heard Charlene's laugh in her head in Inner Hearing, as if the laugh were a little toned down, softer, but still exactly like the therapist's real-life laugh. Also simultaneously, Monica was aware of a warm, happy Feeling she described as a "nice" Feeling felt all over her body, from her neck down to her knees, felt on the surface of and inside the front of her body. She likened the Feeling of happiness to the feeling she might experience if someone had given her a hug. She further described the Feeling as bringing warm body heat, which made it seem as if she had an extra-warm body temperature (which she did not,
in reality). This incongruity between an inner somatic sensation and her actual physiological state at the time was experienced as a Feeling rather than an awareness of an actual warmth in her body.

In Sample #16, Monica was at home. At the moment of the beep, she was (Experienced) Unsymbolized Thinking that she needed to study. If expressed in words, the thought would be, "I need to study." Simultaneously, Monica experienced a Feeling of panic over a test she was scheduled to take later that day. The panic manifested itself as a clutching felt deep inside the middle of her chest, making it difficult for her to breathe. Also simultaneously, Monica experienced an Image of her university Spanish instructor standing in front of her class, seen from the perspective of Monica's usual seat in the classroom in reality.

Sample #12 provided another example of Somatically-Oriented Experienced Feelings. At the moment of the beep, Monica had an Image of her roommate Joanne's face wearing a worried expression. Joanne had told Monica something that made Monica want to move out of their apartment. Simultaneously with the Image, Monica was aware of two Feelings: anger and guilt. She described the experience as "anger and guilt mixed together." The anger produced an energizing Feeling, experienced in the middle of Monica's chest. The guilt was also experienced in the middle of her
chest, and made Monica feel as if she couldn't breathe. This was not like choking, she explained, but as if her breathing were suspended. Unlike the angry Feeling, which was perceived as ascending, the guilt Feeling seemed to descend deep inside her body.

Sensed Feelings

Sensed Feelings, where the Feeling was known to be somehow present in Monica's inner experience at the moment of the beep even though the Feeling itself was not present to her awareness, were reported in 2 (13%) of the 16 Feelings samples. The Sensed Feelings occurred in two consecutive samples, during which Monica was writing a paper for one of her classes; the report was due that day. In Sample #18, Monica was eating ice cream while working on the paper. At the moment of the beep, she had a Sensed Unsymbolized Thinking of not being able to think of how to put the words together for her report, that the report was due, and that it wasn't yet done. This Sensed Unsymbolized Thinking was somehow in Monica's awareness, even though she was not actively thinking the thoughts at the moment of the beep. She was also simultaneously aware in (Experienced) Unsymbolized Thinking that she did not like doing the report; this thought was being thought at the moment of the beep, but no words, Images or Feelings conveyed the message of not liking to do the report. Simultaneously with the Sensed and Experienced Unsymbolized Thinkings, Monica was
hearing the thought, "I shouldn't be doing this," in [Experienced] Unsymbolized Thinking that verged on Wordless Inner Hearing, concerning eating the ice cream and doing the paper at the same time. The thought was not in words but was perceived as being spoken in her inner awareness, although Monica had no sense of producing the speech. Also simultaneously, Monica experienced Sensed Feelings of stress and anxiety. The stress and anxiety were intertwined, and were experienced at the same time, even though they were perceived as separate Sensed Feelings. Monica had experienced these Feelings of stress and anxiety in the previous sample (Sample #17, discussed above in the section on Multiple Inner Experience), and was still aware of the vestiges of the Feelings in the present sample (which was 25 minutes later). According to Monica, she was not Feeling the stress and anxiety directly, but just knew they were present, even though they were not part of her central awareness at the moment of the beep.

In Sample #19, which occurred 25 minutes after Sample #18, Monica was still engrossed in writing her paper. She again reported experiencing Sensed Feelings of stress and anxiety, as well as Sensed Unsymbolized Thinking of the report being due, and being not yet done, as she did in Sample #18, described in the preceding paragraph. (It should be noted here that although the beeper sounded at 25-minute intervals in these instances, this is a coincidence.)
The beeper is programmed to sound at random intervals.) In Sample #19, the Sensed Feelings of stress and anxiety were again sensed to be outside Monica's central awareness at the moment of the beep, yet still were present in her inner experience. At the time as the Sensed Feelings, she also was aware of Experienced Feelings of anger at herself for eating popcorn and disgust with herself for not being able to control her urge to vomit. These Feelings of anger and disgust, unlike the Sensed Feelings of stress and anxiety, were directly Experienced, manifested as annoying sensations in her arms and a pressured feeling in her chest. However, according to Monica, even these Experienced Feelings of anger and disgust were not the highlight of her inner experience at the beep. Rather, the thought, "This sentence isn't right" in Unsymbolized Thinking on the threshold of Wordless Inner Speech was the main focus of her inner experience. Thus, it was possible for Monica to have directly experienced and indirectly experienced Feelings in the background of her awareness, while the central focus of her inner experience was another inner event, in this case, the Unsymbolized Thinking on the threshold of Wordless Inner Speech, "This sentence isn't right," experienced as verbal and spoken even though the thought was not in words per se, and Monica had no sense of producing the words.
Thought/Feelings

Monica experienced Thought/Feelings, which have a cognitive and an emotional component, in three (19%) of the samples in which there were Feelings. In Sample #5, Monica was at her eye doctor. She was in the process of dialing her mother's telephone number when she was signalled by the beeper. At the moment of the beep, Monica was aware of several simultaneous aspects of her inner experience. Although these were perceived separately, they were also understood to be ongoing at the same moment. (1) She was "saying" the numbers in her mother's telephone at work in her mind in, not in words themselves but in Unsymbolized Thinking verging on Wordless Inner Speech. That is, the experience, while not in words, was perceived nonetheless to be more like speaking than simply knowing. (2) She experienced a Thought/Feeling of failing, incorporating a cognitive thought that if expressed in words would be, "She'd be ashamed of me," and a sense of shame. Monica described this as one experience: a failing, shamed, perception of letting herself and her mother down because she had called to ask for money. For Monica, it was manifested as an uncomfortable sensation in the upper middle of her chest, down deep, which she described metaphorically as the feeling of having butterflies in her stomach, except that the uncomfortable Feeling was not in her stomach, but was higher. The butterflies-in-the-stomach experience made
her feel that she wanted to move around and stop the failing, shamed Thought/Feeling. Also simultaneously, Monica experienced a two-part Sensed Unsymbolized Thinking in the back of her mind that she had to ask her mother for money, and that she did not like to do that. Although she was aware of what this thought was about, the thought itself was not actively being thought.

Another example of Thought/Feelings was provided in Sample #20. At the time of the sample, Monica was still working on writing the paper for one of her classes. She reported that in reality, at this point she was tired. At the moment of the beep, Monica had an awareness of being "mentally tired," which manifested itself as an Experienced Feeling of tiredness throughout her body. She also was aware of an (Experienced) Unsymbolized Thinking that she had to finish the project, and a two-pronged Thought/Feeling that incorporated an awareness of wanting something else to eat, and a trying to stop herself from wanting the food. According to Monica, the wanting something else to eat and the wanting to stop desiring the food was perceived to be in her head as well as in her body. Monica described the wanting and the resisting as being like warring factions: wanting was being drawn to the food and resisting was pulling back from wanting it, an experience Monica described as being pulled in two different directions mentally and physically. The resistance was "more mental" for Monica,
whereas the mental tiredness and the desire for food was both mental and physical.

**Multiple Feelings**

Monica reported Multiple Feelings in 6 (38%) of the 16 samples that contained Feelings. In Sample #19 for example, (discussed above in the section on Sensed Feelings) Monica was aware that the sentence she was in the process of writing didn't sound right to her. Although she was eating popcorn while writing her report, at the moment of the beep she was not thinking about the popcorn, nor was she aware of eating it. Instead, she was thinking, "This sentence isn't right" in (Experienced) Unsymbolized Thinking that verged on Wordless Inner Speech. Also at the moment of the beep, Monica was aware of experiencing Sensed Feelings of stress and anxiety, as well as a Sensed Unsymbolized Thinking about the report being due and not yet being completed. Simultaneously, although she was not aware in her inner experience of eating the popcorn, Monica was conscious of an Experienced Feeling of anger and a Thought/Feeling of disgust about eating. She described the anger as "a terrible physical feeling," felt in the middle of her upper chest. She described the Thought/Feeling of disgust as a "bad" experience that made her uncomfortable, made her feel bad about herself because she was unable to control the feeling that she was going to vomit (or purge). All the Feelings--stress, anxiety, anger and disgust--were distinct,
identifiable events in Monica's awareness, separately experienced but nevertheless blended together. Monica explained that at the moment of the beep, she was concentrating on trying to write the report and not on the Feelings of anger and disgust.

In several samples, Monica experienced Feelings that, although they were related in content, produced differing perceptions. In Sample #21, for example, Monica was in the bathroom at home. She was in the process of vomiting when the beep sounded. At the moment of the beep, she had a Bodily Awareness of the pain of her scratched throat and the pressing pain in her stomach. Simultaneously, she was aware of several (Experienced) Unsymbolized Thinkings: being disgusted with herself, hating herself, and Unsymbolized Thinking on the threshold of Wordless Inner Speech a thought that if expressed in words would be, "You're so fat, you had to do this..." Monica described this thought as being an acknowledgment of the necessity of purging because she is too fat. (She stated that in reality she tells herself she is too fat to make herself purge.) Simultaneously, she was aware of Experienced Feelings of disgust and hatred. She described the Feeling of disgust as pressing down, directed into her body. For Monica, it was a "down" Feeling, one she termed an "unenergy," that is, suppressing her energy. She perceived the Feeling of hatred, on the other hand, to be pressing up in her body. The Feeling of hatred was an
"energy" Feeling, inside her. Both the disgust and the hatred were separate Feelings, and both were perceived to be manifested in Monica's body. As she summarized the experience, "disgust goes in, hate goes up."

Sample #12, described above in the section on Experienced Feelings, also illustrated related Feelings that produced differing perceptions. Monica was aware of an Image of her roommate's face and simultaneous Feelings of anger and guilt, both felt in her chest; the anger was perceived as "going up," whereas the guilt seemed to be descending in her body.

Unsymbolized Thinking

Monica reported Unsymbolized Thinking in 14 (74%) of the 19 samples we discussed, many of which included Multiple Experienced Unsymbolized Thinking and/or Multiple Sensed Unsymbolized Thinking. As was pointed out earlier when discussing Experienced and Sensed awareness, it is necessary here to differentiate between Experienced Unsymbolized Thinking and Sensed Unsymbolized Thinking; while they were both symbol-free inner processes, they were quite different experiences for Monica.

Experienced Unsymbolized Thinking was the direct awareness of the meaning of a thought with no observable mode of transmission. That is, there was an awareness of a thought or thoughts in the absence of words, Images,
Feelings, or other symbols serving as vehicles to transmit the thought. In some instances, however, Monica experienced perceptions that were on the threshold of Wordless Inner Speech and in one sample, Wordless Inner Hearing. On these occasions, even though words were not actually present in Monica's awareness, the experience seemed to her to be more like speaking or hearing than merely knowing the meaning of the thought.

Sensed Unsymbolized Thinking was where the content of a thought was in Monica's awareness even though the thought itself was not actually present to her consciousness. In other words, it was not the thought itself that was in her awareness, but rather the knowledge that the thought was ongoing.

**Experienced Unsymbolized Thinking**

Experienced Unsymbolized Thinking was found in 11 (79%) of the samples in which Monica reported Unsymbolized Thinking. An example was found in Sample #9. Monica was reading a magazine. At the moment of the beep, she was looking at a photograph of a dead Romanian leader [Ceausescu] and thinking, "Gross!" in Inner Speech. Simultaneously, she was aware of performing a mental evaluation of the photograph, in which she weighed the elements of the pictured scene and came to the conclusion that it depicted something most distasteful to her. Inasmuch as there were no words or Images relaying this
message, nor was Monica aware of experiencing any emotion at the time, the mental process of evaluation of the magazine picture and the deduction that it was disagreeable to her was Unsymbolized Thinking.

In Sample #20 (discussed above in the section on Thought/Feelings), when Monica was working on her paper, she had an Experienced Feeling of fatigue. She described this as being "mentally tired." The Feeling was perceived to be throughout her body. She also experienced a two-part Thought/Feeling incorporating: (1) a knowing that she had to get finished with the project, and (2) an awareness of wanting something else to eat and a thinking of trying to stop herself from wanting the food. Also simultaneously, Monica was Unsymbolized Thinking that she wanted some "babysitter-type" person there to stop her from eating; this thought was not conveyed through words or Images but rather was just a knowing she needed such a person.

Monica reported Experienced Unsymbolized Thinking verging on Wordless Inner Speech in 9 (64%) of the 14 samples in which there was Unsymbolized Thinking. Unsymbolized Thinking on the threshold of Wordless Inner Speech was distinguished from Inner Speech in that, although words themselves were not actually present in Monica's awareness, as they were in Inner Speech (discussed in more detail in a separate section below), nevertheless the experience seemed to Monica to be more like speaking or
hearing than merely knowing the meaning of the thought (as is the case with Unsymbolized Thinking proper). Monica had difficulty making the distinction between Unsymbolized Thinking and Wordless Inner Speech. As mentioned earlier, when subjects cannot unequivocally state that they have the sense of producing the Inner Speech themselves, even though the experience is understood to be verbal—albeit in the absence of words per se—we call it Unsymbolized Experience verging on Wordless Inner Speech.

In Sample #13, Monica was aware of two instances of Unsymbolized Thinking verging on Wordless Inner Speech, both perceived to be in her own voice even though she had no sense of producing them. In that sample, Monica was working at her job in a night club. At the moment of the beep, she was singing aloud to a song, "Thinking of You," that was playing in the club. She was also aware of thinking, "I love this song." Although the thought was not in words, it nevertheless was perceived to be verbal, and was understood as being in Monica's own voice, even though she reported that the thought was neither spoken nor heard, but instead was "just there" in her awareness. Although she was singing the words of the song aloud, Monica stated that she was not thinking of the words to the song because she "just knew them." Nevertheless, Monica was aware of singing the words to the song at the moment of the beep, and was also aware of the thought, "I love this song." That is, she was
simultaneously aware of two thoughts, both perceived to be in her own voice even though she had no sense of producing them. At the same time as this Unsymbolized Thinking on the threshold of Wordless Inner Speech, Monica was aware of a Feeling of sadness that she described as being, not a "bad" sadness but rather, a sadness because the song was sad.

Another example of Unsymbolized Thinking verging on Wordless Inner Speech was found in Sample #2. Monica was sitting in her living room looking out the window. She was speculating that her next-door neighbor, who had just passed by her window, looked unhappy because he was bald. The beeper signalled as she was thinking, "I'm glad I'm not bald." The thought was not in words per se. The beep sounded right at the end of the thought. Monica described it as a clear thought that flashed through her mind, as if she were talking to herself but no one was answering. The thought ran through the front of her mind as if she were saying the words, but the thought was not in words per se. Additionally, Monica stated she was not aware of any tone of voice, and had no sense of creating the words, the thought was "just there." She said it "just went through" as if she were reading. According to Monica, it was as if she were reading because the words "just happened," which led her to surmise that the thought was in her voice, although she wasn't aware of a voice in her inner experience.
Sample #18 (discussed above in the section of Sensed Feelings) yielded the only example in Monica's reported samples of Unsymbolized Thinking verging on Wordless Inner Hearing. She was eating ice cream while writing her report and was Unsymbolized Thinking "I shouldn't be doing this," in reference to eating the ice cream and doing the paper at the same time. The thought was not in words per se. Monica said she was hearing the thought in her head, but did not perceive the "hearing" to be the same way she hears in reality.

**Sensed Unsymbolized Thinking**

Sensed Unsymbolized Thinking was quite prevalent in Monica's reported samples; it was found in 7 (50%) of the 19 samples in which Unsymbolized Thinking was reported.

An example of Sensed Unsymbolized Thinking was provided in Sample #3. Monica had just finished feeding her cat. She was feeling disappointed over her ex-boyfriend's having told her he had a new girlfriend. Monica had the urge to binge eat and was looking in her kitchen cupboards for food: she was reaching for a box of raisin bran when the beeper sounded. At the moment of the beep, Monica had an Image of Don, her ex-boyfriend and, at the same time, she had a hurt Feeling that made her want to vomit. Simultaneously, in the background of Monica's inner experience was a Sensed Unsymbolized "knowing" of what Don had said about being happy with his new girlfriend. It was the knowing that Don
was happy with his new girlfriend, rather than the actual thought that he had said he was happy, that was just outside Monica's central awareness.

In two instances, Monica reported a two-part Sensed Unsymbolized Thinking in which one part was perceived as being "behind" the other. In Sample #5, discussed above in the section on Thought/Feelings, Monica was dialing her mother's telephone number to ask her for money to pay her eye doctor. She was saying the numbers in the telephone number in Unsymbolized Thinking verging on Wordless Inner Speech. Simultaneously, she was aware of a Thought/Feeling of failing and shame because she was asking her mother for money. Also simultaneously, Monica was aware of a two-part Sensed Unsymbolized Thinking: (1) she had to ask her Mom for money, and (2) that she did not like to do that. Monica was conscious of this Sensed Unsymbolized Thinking but was not focusing on it. She stated that it was less than an explicit thought, and was not foremost in her mind. However, she knew the thought was just outside her awareness, that is, there was just a hint of it being there. Neither part of the Sensed Unsymbolized Thinking was "stopped," though, it merely seemed to Monica that one part was "behind" the other, ongoing, but not as important as the other part. For Monica, the two-part Sensed Unsymbolized Thinking of having to ask her mother for money and the knowledge that she disliked asking her mother for money were
not active thoughts in her inner experience, but these notions were understood nonetheless to be present at the moment of the beep.

Sample #8 provided another example of a two-part Sensed Unsymbolized Thinking in which one part was perceived as being "behind" another. Monica had an Image of a heavy black woman. The woman was sitting with her hip up on a counter, putting jelly beans into her mouth. Simultaneously with her Image, Monica experienced a Feeling of extreme disgust because the woman was fat and was eating (which was something Monica reported that she did not like to see in real life). The Feeling of disgust was located in her stomach, and was one that felt, as she put it, "Yuuucch!" In addition to the Image and the Feeling of disgust, Monica experienced a two-part Sensed Unsymbolized awareness that she'd like to take the jelly beans away from the woman. Incorporated in this Sensed Unsymbolized Thinking was: (1) a knowing that she, Monica, knew that the fat woman was eating and, (2) a sense of wanting to stop her. The two-part Sensed Unsymbolized Thinking was outside her immediate awareness; although somehow, as Monica described it, one part was perceived to be behind another. That is, the knowing that the woman was eating the jelly beans was somehow "behind" the sense of wanting to stop her from eating. For Monica, this Sensed Unsymbolized Thinking
constituted an understanding of the meaning of the thought, rather than an actual thinking of the thought.

Multiple Unsymbolized Thinking

Monica reported Multiple Unsymbolized Thinking in 9 (64%) of the 14 samples in which she encountered Unsymbolized Thinking. Because for the most part these samples included multiple incidences of both Experienced Unsymbolized Thinking and Sensed Unsymbolized Thinking in the same sampled moment, we will examine these multiple phenomena concurrently.

In Sample #15, Monica was at home when she was signalled by the beeper. At the moment of the beep, she was Unsymbolized Thinking on the threshold of Wordless Inner Speech, "I'd better dye my hair." Although this thought was perceived to be verbal, it was not experienced by Monica as talking to herself in Inner Speech, but rather it seemed to her that it was one whole thought that was "just there" in her awareness, although it seemed that it was closer to having been spoken than merely "just known."

Simultaneously, Monica was aware of a Sensed Unsymbolized Thinking that she described as a "mental resistance." This resistance was perceived as being two-pronged: an awareness that she didn't want to dye her hair and a knowing that she wasn't going to dye her hair. The thought that she didn't want to, and indeed would not, dye her hair was not itself in Monica's awareness, but the knowledge that the content of
the thought was ongoing was simply understood to be part of her inner experience. Thus, the Sensed Unsymbolized resistance was outside Monica's awareness; she reported that she was not focusing on the resistance and was not really thinking about it at the moment of the beep, even though she knew the subject matter of the thought.

Another example of Multiple Unsymbolized Thinking was provided in Sample #18, discussed above in the sections on Sensed Feelings and Experienced Unsymbolized Thinking. When the beep sounded, Monica was eating ice cream while writing a report. At the moment of the beep, she also was aware in (Experienced) Unsymbolized Thinking that she was not enjoying working on the report, and she had a Sensed Unsymbolized Thinking of not being able to think of how to word the material she wanted to write. This notion was in her awareness in the absence of the actual thought as a "constant drone" in the background of her awareness. This Sensed Unsymbolized Thinking was accompanied by separate Sensed Unsymbolized Thinkings that her report was due and that it was not yet completed. Simultaneously with the Sensed Unsymbolized Thinkings, Monica was (Experienced) Unsymbolized Thinking on the threshold of Inner Hearing a thought that if put into words would be, "I shouldn't be doing this," concerning eating ice cream and doing the paper at the same time. Simultaneously with the thought about the inadvisability of eating the ice cream and doing the report
at the same time, Monica experienced intertwined Sensed Feelings of stress and anxiety, experienced as vestiges of the unpleasant Feelings she had been experiencing at the time of the previous sample (Sample #17, discussed in earlier sections on Multiple Inner Experience and Sensed Feelings). In this instance, for Monica these were not perceived as two separate Feelings in her inner experience (as they were in Sample #17) and she was not directly aware of them. Rather, she knew the Feelings were there, even though they were not part of her central awareness at the moment of the beep.

Sample #1 provided a further example of Multiple Unsymbolized Thinking. Monica had just pulled into a parking lot and parked. She was still sitting in her car when she was signalled by the beeper. At the moment of the beep, Monica experienced Feelings of dread and resignation. These were perceived as separate Feelings that were nevertheless blended together. Both Feelings, which Monica described as unpleasant Feelings, could be identified, and both were there in her awareness simultaneously. Also at the moment of the beep, she was thinking in Unsymbolized Thinking that verged on Wordless Inner Speech, "I don't want to be alone." Simultaneously, she was aware of an Experienced Unsymbolized Thinking that she hated being home alone and a Sensed Unsymbolized Thinking that she would be home alone. These were related thoughts that accompanied
her Feelings of dread and resignation. Monica described them thusly: (1) An Unsymbolized Thought that she hated being home alone, and (2) A Sensed Unsymbolized knowing that she was going to be home by herself for several hours. The Inner Speech, the Experienced Unsymbolized Thinking, the Sensed Unsymbolized Thinkings, and the Feelings of dread and resignation were, for Monica, part and parcel of the same inner experience, all experienced simultaneously. However, she stated that at the moment of the beep, she was not actively thinking [the Sensed Unsymbolized Thinking] that she'd be home alone for hours; rather, the knowledge that she would be was in the background of her awareness. In other words, both thoughts were in her consciousness, but (1) was the thought focused on, whereas (2) was in the background of her awareness, with the content of the thought known rather than being actually thought. As Monica described it, the concept "being home" was "just there" whereas the concept "home alone" was rather like a "flashing through" her consciousness.

Inner Visual Experience

Images were reported in 10 (53%) of Monica's 19 samples. All her Images were perceived to be in color, and the details were perceived as ranging in clarity from very clear to somewhat indistinct. According to Monica, the imaged color and details were congruent with reality.
An example of a clear Image was Sample #7, discussed in the section on Experienced Feelings. In that sample, Monica had an Image of Charlene, her therapist. The Imaged therapist was sitting in her chair with her feet up on a table, laughing. Monica heard Charlene's laugh in her head in Inner Hearing. The Image, which was motionless, and was a clear picture seen from the perspective of looking at Charlene from the front. In the Image, Charlene was wearing a white shirt decorated with silver beads, jeans, and red sandals. According to Monica, all the elements in the Image—Charlene, her round table, and her chair that tilted back—looked exactly as they do in reality, and the Imaged therapist was dressed as she actually does. Monica's Image was accompanied by a "nice," happy Feeling felt all over her body.

In Sample #11, Monica was getting ready to go to her fitness club to exercise when she was signalled by the beeper. At the moment of the beep, she had an Image of her favorite aerobics instructor, smiling his "weird smile." The focus of Monica's Image was the instructor's face, but she could see his whole body, and was aware of his purple bandanna and his Spandex suit; however, these details were indistinct. Only the instructor was in the Image; there was nothing in the background. The Imaged man's smile was perceived to be in motion and, for Monica, it was almost as if his face were illuminated, making it appear brighter.
than it would be in reality. Monica stated that this brightness was what drew her to his face. Simultaneously, Monica reported that she experienced an incredible burst of inner energy, a "rush" that made her energetic, as if she wanted to bounce around, to be at her aerobics class that very minute. Monica described the Feeling of energy as encompassing her whole body, right down to her toes. She stated that it was the same sense of energy she gets when she works out strenuously.

Sample #14 provided an illustration of an Image that was in muted color. Monica was at work, waiting to be told she could leave. At the moment of the beep, she was thinking in Inner Speech, "Hurry up!" in an annoyed and impatient tone. Simultaneously, Monica was picturing her drive home. She experienced an Image, seen as if through the windshield from the perspective of the driver of the car. In her Image, Monica said she saw the view she sees in real life when driving home. Thus, the Image was experienced by Monica as if she were driving down the road. The Imaged view included some details: She was aware of her hands on the steering wheel, and of the windshield wipers. She could also see the curve in the road where one major street turned into another. However, even though Monica described it as a "moving" Image, she nevertheless experienced no sense of actually rounding the curve. The scene in her Image was a grayish-black color, not really
light but becoming lighter, as it would be in reality when she drives home from work at dawn. Monica said that although the features of the Image were all there, the picture was perceived to be a little smaller than it would be in real life; she likened it to the picture one sees when watching television. Simultaneously with the Inner Speech and the Image, Monica was aware of two separate Feelings, impatience and annoyance, both felt at the same time. As she described it, the impatient Feeling was manifested in a bodily jumpiness, a fidgety Feeling, felt all over the surface of her body. The annoyance was experienced as being more inside, as though she were about to become angry. The impatience was an energizing Feeling, experienced as moving upwards from the middle of Monica's chest.

One of Monica's samples (Sample #4) contained what she described as a series of three Images experienced simultaneously, as well as Indeterminate Visual Experience. Monica had been wishing she were back in Mexico, where she had recently vacationed. At the moment of the beep, the main focus of her inner experience was the series of three Images, although she perceived them to be experienced all at once rather than sequentially. In the first "frame" of the series, Monica was picturing herself and her roommate, Joanne, as they were leaving on their trip, running out the door and down the stairs from their apartment, carrying their luggage. The Image was perceived to be in motion, and
was from the perspective of standing at the apartment door and seeing the figures from the back. Monica's Imaged roommate was a step ahead of Monica, and was seen to be talking. This first part of the Image, which was in color, had good detail. Monica stated that the Imaged steps seemed to be as if she were looking at them in real life. She described her Image as the same picture seen from two different perspectives: (1) Looking at Joanne, the focus of the Image, as if with her (Monica's) own eyes; (2) Looking down at the two of them from the top of the stairs. Here the focus was on Monica herself, that is, she saw herself first, although she saw Joanne as well. Monica stated that she was aware of the external, bystander's perspective and her own perspective at the same time; both perspectives were present. However, she explained that at first, everything in the Image was from her own perspective, then when she saw herself in the Image, it "switched" to Monica looking at herself. Somehow, the whole scene was still in her awareness, in spite of the switch. Monica stated that when it was happening at the moment of the beep, she saw just Joanne, then she "had to put" herself into the image. Monica reported that after she had descended one Imaged step outside her apartment, her Image switched again, this time to a Visual Experience of Sea World that was known to be seen but which had no detail (the phenomenon we call Indeterminate Visual Experience). Monica stated
unequivocally that the series of Images was somehow
experienced simultaneously, rather than in sequence. Also
simultaneously, Monica experienced an Unsymbolized knowing
that she couldn't be back in Mexico. A Feeling of depres­sion followed this realization after a delay of a second or
two.

Inner Speech

Monica experienced Inner Speech in 3 (16%) of her 19
samples. For Monica, Inner Speech was experienced as if she
were speaking in her own voice with her own intonation, even
though the words were not in fact uttered. As mentioned
earlier, Monica's Inner Speech was different from
Unsymbolized Thinking verging on Wordless Inner Speech. In
instances of Inner Speech, Monica could state unequivocally
that words were present in her awareness and that she had
the sense of producing the words. That is, she understood
that she was saying the words to herself. In contrast, in
instances of Unsymbolized Thinking on the threshold of Inner
Speech, words per se were not in Monica's awareness, even
though she understood the thought to be verbal, and the
experience was more like one of speaking than "just knowing"
the thought.

Sample #14, discussed above in the section on Images,
offered an example of Inner Speech. Monica was at work,
waiting to be told she could leave, thinking, "Hurry up!"
Monica stated that the thought was in words, expressed in her own annoyed, impatient tone, with her own inflection, as if she were telling the people at her job to hurry up and dismiss her (although in reality, Monica didn't speak aloud).

**Inner Hearing**

Inner Hearing, which was for Monica more like listening to herself than actively speaking, occurred in 2 (11%) of Monica's 19 samples. (The distinction between Inner Hearing and Unsymbolized Thinking verging on Inner Hearing is analogous to the distinction between Inner Speech and Unsymbolized verging on Wordless Inner Speech.) In Sample #10, for example, Monica was thinking of calling the nightclub where she was employed to find out if she was scheduled to work that day. Simultaneously with an Image of the interior of the club, Monica heard in her own voice with her own inflection the words, "I wonder if I work today." Monica reported that she had no sense of controlling the words, but was hearing the thought. She was aware of the words at the same moment as they appeared in her consciousness. (This sample was discussed in detail in the section on Multiple Inner Experience.)

**Bodily Awareness**

Monica reported experiencing a Bodily Awareness, an awareness—possessing no emotional component—of her current
physical state, in Sample #21, her last sample (which will be discussed at greater length below in the section on Inner Experience During the Urge to Vomit). Interestingly, that was the only sample in which she was purging when she was signalled by the beeper. At the moment of the beep, Monica had a Bodily Awareness of the pain of her scratched throat and the pressing pain in her stomach, sensations that were present physiologically at the time.

Experience During the Urge to Vomit

Monica, who has been bulimic since she was 13 years old, told us that her urges to binge eat and/or vomit came upon her with no warning. She had no way of knowing when her mood was such that she would binge eat. However, she was aware that it happened only when she had to be by herself, and then only when she was at home. She also stated that she did not think about binge eating and/or purging when there was no food around.

Monica said that at the moment of vomiting, she did not have any feeling; feeling was present only afterwards. She said that after she had binge eaten and/or purged, she felt guilty or angry and had the sense of having failed herself.

Monica was sampling on three occasions when the urge to binge eat and/or vomit came upon her. In two instances, she reported that her Feelings at the moment of the beep had to do with her wanting to vomit. One was Sample #19, discussed
at length in the section on Multiple Feelings. In that sample, Monica was eating popcorn while working on a report, although she was not thinking about the popcorn, nor was she aware of eating it. She was thinking in Unsymbolized Thinking verging on Wordless Inner Speech, "This sentence isn't right." She also was aware of experiencing the Sensed Feelings of stress and anxiety that were vestiges of Feelings experienced in two earlier samples that day, as well as the same Sensed Unsymbolized Thinking—about the report she was writing being due and still not done—that had been haunting her previously. Simultaneously, although Monica was not aware in her inner experience of eating the popcorn, she was nevertheless conscious of a Feeling of disgust about the fact that she was eating, and of a Feeling of anger at being unable to control the feeling that she was going to vomit (or purge). The anger was for Monica "a terrible physical feeling," felt in the middle of her upper chest, and the disgust was a Feeling that made her uncomfortable and made her feel bad about herself. All the Feelings—stress, anxiety, anger, and disgust were blended together.

Another example was found in Sample #3 (discussed earlier in the section on Sensed Unsymbolized Thinking). Monica had been feeling disappointed because she had talked to Don, her ex-boyfriend, after class earlier in the day, and he had informed her that he was happy with his new
girlfriend. Monica said that at the time, she was in the kitchen "looking to binge," and to that end had opened the cupboard and was reaching for food when she was signalled by the beeper. At the moment of the beep, Monica was aware of a hurt Feeling that manifested itself deep inside the middle of her upper chest, which seemed to her to resemble closely a nauseous feeling. Monica said the Feeling made her want to vomit. Simultaneously with the hurt Feeling, Monica was aware of an Image of Don, wearing the same shirt he'd had on when she met him earlier that day. Simultaneously present, although outside Monica's awareness, was a Sensed Unsymbolized "knowing" of Don saying he was happy with his new girlfriend.

The third example, Sample #21 (discussed in detail in an earlier section on Multiple Inner Experience) was the only one in which Monica was vomiting when the beeper sounded. (It also was her last sample, as she quit the beeping study after the debriefing.) Monica was in the process of vomiting in the bathroom at home when the beep sounded. At the moment of the beep, she had a Bodily Awareness of her throat hurting, scratched from the vomiting, and of a pressing pain in her stomach. Simultaneously, she was aware of several Unsymbolized Thinkings: being disgusted with herself, hating herself, and thinking in Unsymbolized Thinking on the threshold of Wordless Inner Speech, "You're so fat, you had to do
this..." Monica described this thought as being an acknowledgment of the necessity of vomiting because she is too fat. She stated that she tells herself she is too fat to make herself purge. Monica also was aware of Feelings of disgust and hatred. The hatred was a "pressing-up," whereas the disgust was a "pressing-down." For Monica, disgust was a "down" Feeling, one she termed an "unenergy." The Feeling of hatred was like anger for Monica— an "energy" Feeling, directed inside her. Both the disgust and the hatred were separate Feelings, both felt in Monica's body. As Monica summarized these Feelings, "disgust goes in, hate goes up."

Summary

The most striking aspect of Monica's inner experience was Multiple Inner Experience. In the majority of her reported samples, she was aware of many interwoven yet separable events ongoing simultaneously. It was necessary to make the distinction between experienced awareness, where the thought or Feeling was being directly experienced, and sensed awareness, where the thought or Feeling itself was outside Monica's direct awareness, but the content of the thought or Feeling was nonetheless known to be ongoing.

Monica's most frequently experienced characteristic was Feelings, sometimes experienced multiply. Most of her Feelings were (Experienced) Feelings, usually Somatically-Oriented, featuring a "physical" manifestation in a specific
bodily location. Experienced Feelings included negative Feelings of anger, hurt, dread, resignation, depression, disgust, guilt, sadness, panic, annoyance, stress, and anxiety, as well as positive Feelings of happiness and energy. Monica also reported Sensed Feelings, where the Feeling itself was not present to her awareness but was nevertheless known; and Thought/Feelings, possessing cognitive and emotional components.

Monica also frequently experienced Unsymbolized Thinking. Her Unsymbolized Thinking was both Experienced Unsymbolized Thinking, which may or may not have a verbal or visual orientation, but was experienced in the absence of words, Images, Feelings, or other symbols, and Sensed Unsymbolized Thinking, where the content of a thought or Feeling was in awareness, rather than the thought or Feeling itself.

Monica reported Images in just over half her samples. All her Images were in color, ranging from very colorful to grayish-black, all congruent with reality. The clarity of the Images ranged from very clear to indistinct; however, most of the Images were apprehended as being clear.

In three samples, Monica experienced Inner Speech, where she had the sense of producing the words in her own voice with her own intonation and rate of speech, even though she was not, in fact, speaking aloud. She reported Inner Hearing, which for her was more like hearing than
speaking a thought that she was producing herself. Monica reported experiencing a Bodily Awareness of her current physiological state in one sample.
Chapter 9

Heather

Heather was a 25-year-old college student at the time of sampling. She attended classes and worked at various part-time jobs during the school year. She volunteered for the study after hearing about it from her therapist at the university Counseling Center. Heather was hoping to gain some insight into her anorexia/bulimia by taking part in the project. She had been hospitalized for anorexia in the past, and she reported that it was at the psychiatric hospital that she learned to purge to avoid gaining weight. Thus, she had been bulimic since her first hospitalization. At the time of sampling, Heather was purging (but not binge eating) every day or two, and according to her therapist, her weight was in the dangerous category—80 to 85 pounds—almost low enough to require hospitalization. She was trying hard to control her daily purging at the time of sampling to avoid hospitalization.

Heather was having family problems at home at the time she participated in the sampling project, especially in her relationships with her father and her sister. She was endeavoring at the time to persuade her father to agree to allow her to move into her own apartment. The emotional turmoil and the purging were taking their toll on Heather,
and she was having trouble keeping up with her classes and with absenteeism at work. Additionally, as a result of her frequent vomiting, she was experiencing problems with her teeth and with swollen saliva glands. Thus, Heather's eating disorder was the most severe of any of our subjects during their time of sampling.

Heather used the beeper for seven days over a two-week period. She repeatedly canceled debriefing sessions (and, incidentally, she frequently failed to show up for her therapy sessions as well). Heather abruptly terminated sampling during the same week she stopped seeing her therapist altogether. Because of the frequent cancellations and because Heather's samples were complex, we were able to discuss only 13 samples in detail, which represented approximately half of her recorded samples. This chapter is based on those 13 samples.

We will begin with a brief description of the salient characteristics of Heather's inner experience, then proceed to a detailed discussion of each characteristic. However, in discussing Heather's reported samples, it is necessary once again to distinguish between Experienced and Sensed awareness. Elements of her inner experience presented themselves to Heather in two ways, Experienced and Sensed; this is an important, albeit difficult-to-describe distinction. In Experienced awareness, Heather directly experienced a particular thought, Feeling, Image, or other
aspect(s) of her inner experience. In Sensed awareness, on the other hand, while she was aware that the thought, Feeling, or Image, etc., was ongoing, and knew the content of the thought, the thought per se was not directly in her awareness. That is, in Sensed awareness, Heather was not actively thinking the thought at the moment of the beep, even though she knew the thought was ongoing; the thought itself was outside her awareness, yet the knowledge of the existence of the thought was part of her inner experience.

The most striking aspect of Heather's inner experience was that she consistently experienced multiple simultaneous elements in a single sampled moment—the phenomenon we call Multiple Inner Experience. In 85% of her samples, Heather experienced several events—which may or may not have been related—concurrently yet separately. These multiple inner events were composed of a variety of different aspects, and they frequently included Multiple Unsymbolized Thinkings.

Unsymbolized Thinking—knowing a thought that was not perceived to have been transmitted in words, Feelings, Images, or any other symbolic representation—was the predominant aspect of Heather's inner experience; it was present in 92% of her reported samples. Heather's Unsymbolized Thinking was both Experienced and Sensed. Her Experienced Unsymbolized Thinking might be arranged on a continuum ranging from unequivocally symbol-free experiences to Unsymbolized Thinking verging on Wordless Inner Speech,
in which events were understood to be verbal, even in the absence of words themselves, and were perceived as being more like speaking than merely knowing the thought, even though Heather had no sense of producing the speech.

Also prevalent were Feelings, which were reported in 85% of Heather's samples. These were emotional and/or cognitive inner events that may or may not have manifested themselves in specific bodily locations. Most of her Feelings were Experienced Feelings; however, in one sample, she reported a Sensed Feeling. Heather's Feelings could be organized on a continuum of Thought/Feelings—which possessed a cognitive as well as an emotional component—ranging from Thought/Feelings to Feelings verging on Thought/Feelings. In one sample, Heather reported an experience we have called an Indeterminate Visual Experience/Feeling, which included a sightless yet nevertheless visual component, which was perceived to be both felt and seen. This experience is characterized as a Feeling rather than as Inner Visual Experience because there was a strong emotional quality inherent in the experience.

Heather reported Inner Visual Experience, ranging from very clear Images to Indeterminate Visual Experience, in 39% of her samples. She experienced Bodily Awareness, a somatic awareness that reflected her actual physiological state at the moment of the beep, in 39% of her reported samples. She experienced Inner Speech in Sample #13, and Inner Hearing in
Sample #1. Rather than address Inner Speech and Inner Hearing in a separate section, these phenomena will be discussed when describing those samples in the section on Thought/Feelings.

Multiple Inner Experience

As mentioned earlier, the occurrence of multiply-experienced inner events was the most striking aspect of Heather's sampled moments; in fact, only 2 of her 13 reported samples had a single ongoing train of thought. In 86% of her reported samples, Heather was aware of several, sometimes related, simultaneous happenings, each experienced as a separate event yet all ongoing at the moment of the beep. In most of these incidences, many different characteristics were represented in a single sample. However, Multiple Unsymbolized Thinkings (to be discussed further in a separate section on Unsymbolized Thinking below) were reported in 62% of Heather's samples.

Multiple Inner Experience was illustrated in Sample #3, in which Heather simultaneously experienced a Thought/Feeling, several Unsymbolized Thinkings, Unsymbolized Thinking on the threshold of Wordless Inner Speech, and an Image. In that sample, Heather was in class, Unsymbolized Thinking about of all the things she had to do. If put into words, the thought would be, "I have this to do...I have that to do...," one thought after another, but
she was not specifically naming each task, and the thought was not in words. According to Heather, the thought seemed to be unpleasant, in that it was about things she did not want to do. The main focus of Heather's inner experience, simultaneous with the stream of tasks, was a Thought/Feeling she described as an "overwhelmingness," felt in her head, of all the things she had to do, in which everything seemed to be too much for her. She stated that the Feeling was perceived as part of the thought content.

Also at the moment of the beep, Heather was Unsymbolized Thinking verging on Wordless Inner Speech about how boring the lecture was. The thought was apprehended by Heather to be inside herself, somehow in her own words, even though there were no words per se in her inner experience, and she was not aware of creating the speech. If expressed verbally, this thought would be, "This is so boring!" (As we have seen, when subjects cannot unequivocally state that they had a sense of producing the speech, and when the thought was understood as being verbal, even though there were no words per se in awareness, we call the phenomenon Unsymbolized Thinking verging on Wordless Inner Speech.) Also simultaneously, Heather was aware of an Unsymbolized worrying about the amount of homework she had to get done. This worrying was accompanied by what she described as a visual experience--although Heather could not be sure it was actually an Image--in which she "saw" herself sitting down
at a desk in a dark area in the restaurant where she works. She "saw" herself from the left side, doing her math homework. Heather stated that the Indeterminate Visual Experience was in color, but she was unable to tell what clothes the Imaged Heather was wearing. She stated that also ongoing at the same time was a dim Unsymbolized Thinking about food in the background of her awareness.

Thus, Heather's awareness at the moment of the beep included multiple elements. These were: Unsymbolized Thinking of a stream of tasks she must do; a Thought/Feeling of "overwhelmingness;" an Unsymbolized Thinking on the threshold of Wordless Inner Speech of how boring the lecture was; an Unsymbolized worrying about how much homework she had to do; an Indeterminate Visual Experience in which she "saw" herself sitting at a desk in the restaurant where she works, doing her homework; and a dim, background Unsymbolized Thinking about food.

In addition to experiencing multiple incidences of different characteristics, Heather reported multiple occurrences of Unsymbolized Thinking. This will be discussed further in the section on Unsymbolized Thinking below.

Unsymbolized Thinking

Unsymbolized Thinking was reported in 12 (92%) of Heather's 13 samples; Multiple Unsymbolized Thinking was
found in 8 (67%) of the 12 Unsymbolized Thinking samples. As we pointed out earlier in the section on Experienced and Sensed awareness, it is necessary to differentiate between Experienced Unsymbolized Thinking and Sensed Unsymbolized Thinking, as these were differently-experienced phenomena for Heather.

Experienced Unsymbolized Thinking was the direct awareness of the meaning of a thought with no observable sensory aspects. That is, the meaning of the thought was present to Heather's awareness even though the meaning was not carried by means of words, Feelings, Images, or any other symbols. Her Experienced Unsymbolized Thinking ranged from "pure" Unsymbolized Thinking, which contained not even a hint of a symbol, to Unsymbolized Thinking that verged on Wordless Inner Speech, where the thought was understood to be verbal, even in the absence of words per se, and was perceived to be more like Inner Speech than just known, even though Heather had no sense of producing the speech.

In Sensed Unsymbolized Thinking, which also was symbol-free, the subject matter of the thought was known, but the thought itself was not part of Heather's central awareness, even though it was perceived to be ongoing at the moment of the beep.

Experienced Unsymbolized Thinking

Heather's Experienced Unsymbolized Thinking ranged from inner experiences that were without symbolic representation
(words, Feelings, or Images, etc.) to Unsymbolized Thinking verging on Wordless Inner Speech.

Experienced Unsymbolized Thinking was found in 12 (92%) of Heather's 13 samples. Sample #11 provided an example. Heather was getting ready to go out. She had been thinking about vomiting to rid herself of the full feeling she had in her stomach when she was signalled by the beeper. At the moment of the beep, Heather experienced a Bodily Awareness of the heavy weight in her stomach and a somatic feeling of queasiness and heaviness. She was focused on her stomach and on the heavy feeling, and wondering in Unsymbolized Thinking whether she should purge herself of the soda pop she had drunk earlier. The wondering was perceived as an awareness of the battle between the decision, "yes" or "no." Heather reported that the battle had been ongoing in reality for ten minutes before the beep but at that moment, she was just making the decision not to vomit. Although when the beeper sounded she was still aware of the options and of having had to decide between them, only the vestiges of the battle between "yes" or "no" remained, and her awareness at the moment of the beep focused on the decision not to vomit.

In Sample #7, Heather was reading her education class textbook about Kindergarten reading programs. She stated that it was "easy reading" for which she didn't need a dictionary. Just before the beeper sounded, Heather had been reminiscing about when she was a little girl. At the
moment of the beep, she was aware of a Feeling of warm calmness, which she described as a "nice" Feeling stemming from the memory of herself as a child. (This was in contrast to the anger she had felt earlier in the day.) She was also aware in Unsymbolized Thinking that the meaning of the words she was reading came to her clearly; they seemed to be coming easily into her consciousness. Thus, at the beep, Heather was focused on the words she was reading and on the knowing that the words were coming easily; she was not thinking about anything else. She stated that her mind was not cluttered with extraneous things, as she often perceived it to be.

Sample #9 illustrated the phenomenon of Unsymbolized Thinking on the threshold of Wordless Inner Speech, containing two simultaneous examples embedded in a Multiple Inner Experience moment. Heather was doing her math homework. She stated that before the beeper sounded, she had been angry while she was doing the problems, and probably in reality had said some "bad words" aloud, directed at her book. At the moment of the beep, she was Unsymbolized Thinking about one of the math problems in the homework. She also simultaneously had an awareness of a Thought/Feeling of frustration that had several components: a sense that she was not in control of the math problems on which she was working, an urgency to get on to the next problem and then the next, and a sense of rushing to get the
homework completed—an "overloaded" Thought/Feeling. This multi-faceted Thought/Feeling was manifested in her head. At the same time, Heather was aware of a separate Feeling of anger. Also simultaneously, she also was aware of an Unsymbolized trying to understand what she was writing.

Concurrently with the Unsymbolized Thinking, the Thought/Feeling of frustration and the Feeling of anger, Heather was "talking" the math over to herself, not in words per se, and without the sense of producing the words herself; that is, in Unsymbolized Thinking verging on Wordless Inner Speech. Also at the same time, Heather was Unsymbolized Thinking another thought that was on the threshold of Wordless Inner Speech. If the thought were expressed in words, it would be, "I can't believe this—this is f_ _ _ing stupid." As Heather described this aspect of her experience, the thought seemed to be in a deeper voice than her own, but she knew it was her voice, which she perceived to be angry, like the one she uses when she is irate, except that in this instance, it was a louder, angrier voice than she would normally use in that situation in reality. As in the earlier thought, Heather had difficulty making the distinction here between Unsymbolized Thinking and Wordless Inner Speech, but she was sure she had no sense of being the originator of the speech. According to Heather, all the Unsymbolized Thinking that verged on Wordless Inner Speech was present, along with the other
aspects, at the same moment in her inner experience. However, she stated that it did not seem as if she were "overloading" herself at the time in reality; however, a sense of being overloaded occurred after the beep when she was recording the contents of her inner experience.

Sensed Unsymbolized Thinking

Sensed Unsymbolized Thinking differs from Experienced Unsymbolized Thinking in that it is not directly experienced at the moment of the beep. That is, the thought is not directly being thought. Rather, the knowledge that the thought is ongoing and the content of the thought are both in awareness, but not the thought itself. Heather experienced Sensed Unsymbolized Thinking in 3 (25%) of the 12 samples in which she reported Unsymbolized Thinking.

An example of Sensed Unsymbolized Thinking—experienced multiply—was found in Sample #8. At the moment of the beep, Heather reported that she was Unsymbolized Thinking that she "felt like a scrounge, a black, scummy little, skinny little, scummy mouse." At the same time, she had a clear Image of the mouse. Nothing else was in the Image, just the mouse. Heather described her Image as a nonmoving picture of a mouse (known to be herself) as if seen from the side, hunched over and facing front. She also experienced Multiple Sensed Unsymbolized Thinkings: She was thinking that she had to be like this mouse as she had no other way to be; she was thinking that she did not belong; she knew
that someone was going to grab her and throw her out "of the whole world;" and she knew that the reason she is a little mouse is so she won't be noticed (mice aren't noticed); she knew that if she isn't noticed, then people will not reject her. All these thoughts--having to be mouselike, that she did not belong, knowing someone would throw her out, and knowing why she should be a mouse, were known to be ongoingnings, but none were in her central awareness at the moment of the beep. The contents of these thoughts were known to be outside her direct awareness, even though she knew they were ongoing. Simultaneously with the Image and these Multiple Sensed Unsymbolized Thinkings, Heather was aware of a Thought/Feeling of loneliness and of not being good enough to be in society. The lonely Thought/Feeling was perceived to be in her head and felt like a pressure, as if people were staring at her. Also simultaneously, Heather was Feeling anxiety. The anxiety took the form of a tenseness in her body, a tenseness Heather stated stemmed from her paranoia, which she described as believing that if she weren't a mouse, someone would look at her and tell her she was ugly.

Multiple Unsymbolized Thinking

Heather experienced multiple incidences of Unsymbolized Thinking--including Sensed Unsymbolized Thinking or Experienced Unsymbolized Thinking, or both--in 8 (66%) of the 12 samples in which she reported Unsymbolized Thinking.
In Sample #2, for example, Heather was in her English class looking at the chalkboard. The instructor had written some sentences on the board and was explaining why one of them was a "type C" sentence. Looking at the sentence, Heather knew her interpretation of the sentence was wrong, as she had thought the minor premise in the sentence was the major premise. The beep sounded directly after the instructor's explanation and Heather's subsequent realization that she was wrong.

At the moment of the beep, Heather was aware of a Thought/Feeling of being upset because she didn't understand the rules of grammar. She described this as a sequence of frustrations, felt in her head and her body. Simultaneously, Heather was Unsymbolized Thinking on the threshold of Wordless Inner Speech several terms, "nominative...genitive...predicate...structure...," but not in words per se. At the same time, she was making a comment to herself in Unsymbolized Thinking verging on Wordless Inner Speech that if expressed in words would be, "What does she mean by that?" This comment seemed to Heather to be a verbal questioning, as if she were talking to herself in her own voice, although she had no sense of creating the words herself. Simultaneously, Heather experienced an Unsymbolized Thinking of confusion in her mind as she followed the instructor's explanation. She also was aware of another (Experienced) Unsymbolized Thinking in which she
was trying to figure out the process the instructor was demonstrating by putting the concepts the instructor was explaining, "nominative, genitive...," etc., in her (Heather's) own terms. Heather stated that this process was not as if she were saying the words aloud, but rather as if the concepts were just there in her head, somehow being transformed into terms Heather could understand.

Sample #12 provided another example of Multiple Unsymbolized Thinking. Heather was driving her car. At the moment of the beep, she was (Experienced) Unsymbolized Thinking about the swollen glands in her cheeks and how large they had become because of her frequent purging, and thinking how "gross" she was. Heather's Unsymbolized Thinking about her grossness was accompanied by an Image of her head, seen as if she were looking at herself from the side. Her face and hair were in the Image, but her focus was on the glands themselves, which were larger than they are in reality—"huge" in Heather's Image of them. At the same time, she experienced an Unsymbolized Thinking of what she termed a "paranoia" about her swollen saliva glands, a kind of sensing that people were looking at them. Heather reported that while she was not in reality excessively aware of her glands, she had a Bodily Awareness of the enlarged glands at the moment of the beep. Simultaneously, Heather was experiencing Unsymbolized Thinking verging on Wordless Inner Speech. If the thought had been in words, it would
have been expressed as, "I'm so gross" and, "I have an ugly face that goes along with it." For Heather, it was as though she were talking to herself, even though she was not aware of being the originator of the speech. She was merely conscious of the thought at the moment of the beep, perceiving it to be located in the back of her head.

Feelings

Feelings—mostly Experienced Feelings that were apprehended directly at the moment of the beep—were prevalent in Heather's inner experience, having been reported in 11 (85%) of her 13 samples. It was difficult for Heather to tease apart her Feelings from her thoughts; as she described it, thinking and feeling were not separate experiences for her. In fact, none of the Feelings in her reported samples were "pure" Feelings having only emotional attributes. Thus, Heather's Experienced Feelings could be arranged along a continuum from Thought/Feelings, where there clearly were inseparable emotional and cognitive components, to Feelings verging on Thought/Feelings, where there was an emotional quality and a less-clear cognitive element. The majority of Heather's Feelings were perceived as being negative, and included frustration, anger, anxiety, fatigue, jealousy, Feeling overwhelmed or "overloaded," and Feeling like vomiting. However, she experienced a pleasant Feeling of warm calmness in Sample #7 (discussed above in
the section on Experienced Unsymbolized Thinking), and in another sample (Sample #1, described below in the section on Thought/Feelings), she reported Feeling hopeful and constructive. Heather's Experienced Feelings manifested themselves most often in her head or in her body, although she could not always specify the location of her Feelings. In one instance, she experienced a phenomenon we call Indeterminate Visual Experience/Feeling, which incorporated a sightless but nonetheless visual component as well as an emotion-laden Feeling. In another sample (Sample #5, to be discussed in a separate section below) Heather experienced a Sensed Feeling that was known to be ongoing even though it was not directly present to awareness. Heather's Feelings were experienced multiply in only two samples.

Thought/Feelings

Heather reported Thought/Feelings, incorporating both emotional and intellectual aspects, in 10 (91%) of her Feelings samples. In Sample #4, Heather was in class, attempting to focus on the instructor, and trying to understand the lecture on behavioral theory. At the moment of the beep, she was aware of Unsymbolized Thinking verging on Wordless Inner Speech a thought that, if it were in words, could be expressed as "...tiresome...trying to understand...." At the same time, Heather had a Feeling verging on a Thought/Feeling of fatigue with all the information she was being bombarded with, a sense of being
tired of taking in information and "sick of" trying to process the data. The tiredness was described as more "physical" than mental but is distinguished from a Bodily Awareness (to be discussed in a separate section below) in that the fatigue incorporated an emotional "fed up" Feeling along with the sense of being "sick of" processing too much information. Simultaneously, Heather experienced several related Bodily Awarenesses: sleepiness, her hand hurting, her eyes rolling in back of her head.

Sample #1 provided another example of Thought/Feelings. This first day of sampling was, for Heather, also the beginning of class for the spring semester. She was in class focusing on the instructor and had been feeling bored; throughout the morning she had been feeling optimistic about the day—an outlook Heather attributed to the fact that she had not vomited that morning. As the beep sounded, she was aware of a Thought/Feeling of hopefulness, which she described as Feeling and thinking at the same time, in the same experience. Heather state that this particular Thought/Feeling, located in her head, consisted of several interdependent emotionally-charged elements: looking forward to existing; being happy to be alive; being nice to other people; feeling as if she had a purpose. Simultaneously, Heather was Unsymbolized Thinking that she was going to be able to get herself through doing something she should do that day, such as starting on her beeping
project. She was also aware of a separate Thought/Feeling of being constructive about doing the beeping—a good feeling in her head because she had the sense that maybe the beeping was going to help her. As Heather described it, thinking and feeling were not separate experiences for her.

Simultaneously with the Thought/Feeling and Unsymbolized Thinking, she was Inner Hearing a song from the New Wave group "The Cure" that was going through her head, "...Your face is drawn, you're ready for the next attack...." For Heather, the song played in the back of her mind like a "distractor," as if she were thinking of something else in her mind at the same time the song was playing. As she described it, the words of the song in her inner experience were sung as The Cure would sing them in the background, complete with music. The words and music seemed to be perfectly executed, a good copy of the song, which she described as a "Memorex copy." Yet in her inner experience, she knew it was not a "real" song: The music seemed softer than it would in reality, and for Heather, the words were enhanced, that is, they appeared to be "standing out" and were more repetitious than they are in reality. According to Heather, the lyrics, "...Your face is drawn, you're ready for the next attack..." seemed to be going through her head because she "preferred to repeat" them. However, she stated that did not consciously repeat the
lyrics, but instead decided to listen to the song by the Cure in the back of her head every time she was bored.

In Sample #13, Heather was at school, sitting hunched over at a desk, studying an example of a grammar rule in her textbook. At the moment of the beep, she had a sense of her chest caving in. The caving-in was not a Bodily awareness of hunching over, but rather was a Thought/Feeling, manifested on the surface of her body, that her chest was caving in vertically along the middle in conjunction with a "fed up" Feeling in which she wanted to vomit because she was "sick of studying" the same subject matter over and over. Heather stated that although she was not frustrated or upset at the moment of the beep, she nevertheless experienced the desire to "purge" her feeling of being "fed up" with studying. Simultaneously, she was aware of concentrating in Unsymbolized Thinking on the concept of "nominatives," thinking a thought that if expressed verbally would be, "How nominative appositive?" but this thinking was not in words per se. Heather also was aware of reading a sentence in her mind in Inner Speech, saying the words one after another, "Mary, the teacher, will attend the meeting." As she was saying the sentence, in Inner Speech, Heather also was saying over and over, "The teacher is appositive for Mary." She described this last Inner Speech as being simple repetitions while studying. At the same time as the Thought/Feeling, the Unsymbolized Thinking, and the Inner
Speech, Heather had a Sensed Unsymbolized Thinking of blankness, a "nothingness" that she described as a black void in her mind.

In Sample #10, Heather experienced what we call an Indeterminate Visual Experience/Feeling. She was curling her hair when she was signalled by the beeper, and she had been feeling sick to her stomach. At the moment of the beep, she had a Bodily Awareness of queasiness and of pain in her stomach. At the same time she described "having a Feeling of and seeing" a black, webby substance growing inside her body, although closer discussion revealed that while the "seeing" had visual aspects, it was not the seeing of an Image. Heather described the substance as being loose and ragged, like a spider's web, creeping from the inside of her stomach up to her throat. She stated that the webby substance in her inner experience was like the "stringy stuff" she produces when she vomits. She described her awareness of the substance as sticking to her throat and her stomach and building up, with more and more webs going to her throat. The Feeling of the webby substance and the picture of it were one and the same experience for Heather. The picture, which had no borders, was perceived to be in her head. She described the experience as being as if she were looking into her body, and stated that she could Feel the substance in her stomach, and simultaneously, she was picturing in her mind what was going on in her body. The
almost-visual webby scene was seen from the perspective of looking through an opening in her stomach, as if she had a probe with a camera attached working its way from the bottom of the stomach to the top, taking a picture of the webby substance as it was progressing closer to her throat.

**Sensed Feelings**

Heather reported Sensed Feelings in one sample, Sample #5. In that sample, she reported an Indeterminate Visual Experience in which she was aware of herself as being a hungry little mouse backed into the corner of an alley at nighttime, with a cat coming towards her. For Heather, the cat in her inner experience was her sister, (who Heather believes is "out to get" her). The cat held knives, two in each paw, and was standing on its hind legs, ready to attack. (This Indeterminate Image will be discussed further below in the section on Inner Visual Experience.) Simultaneously, Heather was aware of a Thought/Feeling that had several components: of being alone, of having no control, of being scared, and of being unable to help herself because she (the mouse) was alone in the alley, powerless to do anything about the impending attack.

Heather was also aware of Unsymbolized Thinking, which if put into words would be, "My sister is such a bitch, and now she's backed me in the corner and I'm helpless." She also was aware of certain bodily sensations: She had a Bodily Awareness of feeling tense, and of her hands shaking. Also
at the moment of the beep, Heather experienced a Sensed Unsymbolized Thinking consisting of a vague impression of blackness, and of herself as being very, very small. This blackness and smallness was not an integral part of Heather's inner experience, but it was nonetheless there in her awareness at the moment of the beep. Additionally, she was vaguely aware of a Sensed Feeling of jealousy in the "background" of her inner experience. This, too, was not a central part of her inner experience, yet it was on the fringes of her awareness. As Heather described this Sensed Feeling, she was not actively Feeling jealous at the moment of the beep, but she nevertheless knew the jealousy was ongoing.

Inner Visual Experience

Heather reported Inner Visual Experience, ranging from very clear Images to Indeterminate Visual Experiences, in 5 (39%) of her 13 samples. Sample #6 offered an example of a clear Image. Heather was driving her car. Billy Idol was singing "Rebel Yell" on the tape deck. Heather was (in reality) very angry as she drove along. At the moment of the beep, she had an Image of herself as a video dancer in a discotheque. In her Image, Heather was wearing high heels (not what she usually wears), and a pair of child's bobby socks with ruffles along the top, folded down. The Imaged Heather was "very, very skinny" and had on very little
clothing; she was wearing leopard-striped bikini underwear, "horrible make-up, big old earrings, and teased hair."

Heather stated that in her Image, she was the main attraction, and she perceived herself in Unsymbolized Thinking as being in control of things. The Imaged scene was a discotheque featuring many stage and strobe lights. There was smoke in the air, making the atmosphere seem like that of a bar. The dancer (Heather) was seen from the front from the perspective of looking up at the stage from the audience, and was perceived to be in motion, dancing, swinging to the Billy Idol music. The Imaged Heather's hair was "all teased out" and the combination of that, the make-up, and what she was wearing, was what she described as "kind of sleazy."

Heather reported Unsymbolized Thinking that the dancer seemed to be a little girl trying to grow up. She described the experience as being as though she could identify with the dancer, yet had to wear the bobby socks because she was really a little girl. (Heather said this paradoxical situation seemed reasonable to her at the time.)

Simultaneously with the Image and the Unsymbolized Thinking, Heather was aware of a background Thought/Feeling that made her feel "like a mean person." The Thought/Feeling for Heather was one of rebellion, perceived to be mostly in her head, of "doing her thing." Simultaneously, she experienced a Thought/Feeling of anger, felt as a tenseness in her body,
because she was not in control of her life, not in control of anything. Heather explained the inner experience of herself as a dancer thusly: "I feel like punching someone but I can't, so I'm dancing exotically."

Sample #5 (discussed above in the section on Sensed Feelings) provided an example of Indeterminate Visual Experience. When the beeper sounded, Heather was aware of what she described as a visual experience, but one she could not say unequivocally was an actual Image, even though she was able to provide visual characteristics as she described the experience. In this Indeterminate Visual Experience, she was aware of herself as being like a starving, hungry little mouse, experienced as a shadow of a mouse, really, backed into the corner of an alleylike area. The alley was perceived as being shaped like a tunnel, with the darkness at the top; there were one or two lights and dumpsters in the alley. Heather "saw" herself as the mouse in the alley—a skinny little mouse facing forward, with a cat coming towards her, ready to attack. The mouse (Heather as mouse) was "seen" from the side, and as if the mouse were close to the viewer (herself), yet she could still "see" the cat (her sister) coming at her to attack her. In Heather's almost-Image, it was nighttime. The cat was "just there" in the shadowy scene, but Heather stated that she knew it was a cat, holding four knives, two in each paw (Heather said they were not her sister's hands, but were paws) and standing on
its hind legs, as a cat would—not like a person, but hunched over like an animal ready to attack.

**Bodily Awareness**

For Heather, Bodily Awareness was an awareness of her current physical state. Bodily Awareness was differentiated from Feelings in that there was no particular emotional significance in instances of Bodily Awareness, as there was in her Feelings. Heather reported Bodily Awareness in 5 (39%) of her 13 samples.

Sample #4 (discussed above in the section on Unsymbolized Thinking) provided an example. Heather was in class, Unsymbolized Thinking that taking in so much information was tiresome. Simultaneously, she had a Thought/Feeling of fatigue because of being "fed up" with trying to understand and process all the data with which she was being bombarded. Also simultaneously, Heather had several Bodily Awarenesses: sleepiness, her hand hurting, her eyes rolling in back of her head. These Bodily Awarenesses were congruent with her physiological state at the moment of the beep.

**Summary**

In the majority of Heather's reported samples, she experienced multiple simultaneous events, all of which seemed to be happening at the moment of the beep. Even though many of these were interrelated elements, they were
nonetheless all readily identifiable, and were separately apprehended. Heather stated unequivocally that these were not experienced as rapid sequential thoughts, Feelings, etc., but rather were perceived as being ongoing simultaneously.

A distinction must be made between two differently-experienced phenomena in Heather's reported samples: Experienced and Sensed awareness. In Experienced awareness, a thought or Feeling was directly being thought (or felt), whereas in Sensed awareness, although the contents of the thought or Feeling were known in her awareness, the thought or Feeling itself was outside her awareness.

The most predominant of the salient characteristics of Heather's inner experience was Unsymbolized Thinking, apprehended as Experienced Unsymbolized Thinking as well as Sensed Unsymbolized Thinking. Experienced Unsymbolized Thinking could be organized on a continuum ranging from truly symbol-free experiences to Unsymbolized Thinking verging on Wordless Inner Speech, wordless thoughts that Heather perceived more as having been spoken by her than just known, even though she had no sense of having originated the speech herself. In Sensed Unsymbolized Thinking—also symbol-free—Heather was aware that even though a thought was ongoing, it was not currently being directly thought; however, the contents of the thought were known.
Feelings also were prevalent in Heather's reported samples. Her Feelings were mostly Experienced Feelings, directly present to her awareness. However, in one sample, she reported experiencing a Sensed Feeling that was not being directly felt at the moment of the beep, but was nevertheless known to be ongoing in her inner experience. Heather's Experienced Feelings might be arranged on a continuum of Thought/Feelings, from true Thought/Feelings, possessing inseparable emotional and cognitive components, to Feelings verging on Thought/Feelings, where there was an emotional quality and a less-clear cognitive element. Her Thought/Feelings, which spanned a wide range of emotions, were reportedly manifested in her head and her body, although sometimes Heather could not specify the bodily location of the Feeling. In one sample, she reported an Indeterminate Visual Experience/Feeling, which included an emotional component coupled with a sightless-yet-visual element; this was perceived to be both felt and seen.

Less frequently than Unsymbolized Thinking and Feelings, Heather reported Inner Visual Experience—usually quite complex—that ranged from very clear Images to Indeterminate Visual Experience. About as often as Inner Visual Experience was Bodily Awareness, in which Heather experienced a somatic awareness of her current physiological state. She experienced Inner Speech and Inner Hearing only once.
Chapter 10

Discussion: The Bulimic Subjects

The five subjects in this study—all of them female—answered the call for volunteer subjects suffering from the eating disorder, bulimia, to record details of their inner experience when signalled by a randomly-timed sound from the beeping device they wore. In addition to being self-described bulimics, all subjects satisfied the DSMIII-R criteria for bulimia. One subject, Heather, also suffered from anorexia nervosa, and she considered herself both anorectic and bulimic.

The subjects ranged from having their bulimic tendencies under control, as Emily did, to binge eating and purging on a daily basis, as was true for Heather. In general, the healthier the subject (in terms of bulimic behavior), the longer she continued with the sampling project and the fewer debriefing sessions she canceled.

In this study, there was no set-in-advance number of samples for subjects to collect. Instead, the subjects' sampling was discontinued at the point when the most salient characteristics of their inner experience were judged to have emerged and to be relatively clearly defined, or when a subject terminated prematurely. The subjects are presented here, as they were earlier, in the order of the severity of
their symptoms, that is, from healthiest to most involved in bulimic behavior, worry about weight, and the amount of outside support each was obtaining to help curb bulimic tendencies.

The Bulimic Subjects

Emily (Chapter 5) was a 30-year-old divorced mother of one young son. She worked full time and attended several classes each semester. She was in her senior year of college. Emily was about 10-15 pounds overweight. She was trying to lose some weight, and was quite worried about gaining more. She had been hospitalized for bulimia in the past, but was not currently binge eating or purging. She was attempting to control her weight by exercising several times a week—she attended twice-weekly sessions with a personal trainer and worked out on her own on other days—and by watching her diet. Emily was the subject who collected the largest number of samples, in part because she was receiving one university credit for independent study for taking part, and in part because she found the sampling to be beneficial to her in her quest to find out more about herself.

Melissa (Chapter 6) was an 18-year-old college student who was approximately 20 pounds overweight. She had been bulimic for several years but had never been hospitalized for the disorder. She had decided to be content with her current weight and reported that she was not concerned about
her heaviness. Melissa was binge eating but not purging at the time of sampling. She was not attending therapy sessions at the time. She collected samples until sampling was discontinued by the researchers.

Christine (Chapter 7) was a 30-year-old junior high school teacher who was taking night classes at the graduate level. She was divorced, with one young son, and had been remarried for two years. Christine, who was approximately 10-15 pounds overweight, worried incessantly about her weight. However, she was neither binge eating nor purging at the time of sampling. She was in a therapy group formed by bulimics, and attended weekly sessions. Christine collected samples until sampling was discontinued by the researchers, after which she was given a beeper and asked to record her inner experience in the future, whenever she felt the urge to binge and purge. She returned the beeper several weeks later, saying she had not experienced any such urges.

Monica (Chapter 8) was an 18-year-old college student of normal to slightly above-normal weight. She lived away from home in an apartment with a friend. She had been bulimic since the age of thirteen, had been hospitalized in the past for the eating disorder, and was currently under the care of a therapist. Monica was binge eating and purging often (at least every few days) at the time of sampling, which was a source of considerable concern to her.
She terminated the sampling herself, after she had been beeped when she was actively purging. She said that wearing the beeper made purging too difficult for her.

**Heather** (Chapter 9) was a 25-year-old college student who was still living at home, but who was experiencing problems in her relationships with her father and sister and was trying to persuade her father to let her move into an apartment of her own. Heather was dangerously underweight (80-85 pounds at approximately 5'4") and was going to counseling at the university Psychological Counseling Center to stave off another hospitalization. Heather was not binge eating at the time of sampling, but was purging daily. She was experiencing health problems—decaying teeth and swollen saliva glands—as a result of her frequent purging. She also was having trouble keeping up with her classes and was experiencing problems at her part-time job because of sporadic attendance.

**Bulimic Subjects Previously Sampled**

Two bulimic females have been sampled previously using this method; both satisfied the DSMIII-R criteria for bulimia. We will include a brief description of these subjects (like our other subjects, their names have been changed) as we shall incorporate the salient characteristics of their inner experience into our discussion.

**Ashley** (Hurlburt, in press) was a married 42-year-old mother of three children who worked as an operating room
nurse. She volunteered for the study after hearing it described for a hospital colloquium. Ashley was an episodic binge eater and purger. When she was currently in a cycle of binge eating and purging, she would vomit daily—sometimes several times a day—for several consecutive days, then refrain from purging for several days. The nine-day period of sampling, during which 38 samples were discussed, was one of emotional turmoil for Ashley.

Beth (Hebert, 1992) was a 46-year-old legal secretary who was enrolled in an undergraduate psychology class, where she heard about a sampling study focused on anxious subjects. She received extra credit for participating. Beth suffered from severe anxiety and was seeing a psychiatrist for panic attacks and episodes of post-traumatic stress. She reported also having an eating disorder, but denied having anorexia or bulimia. However, she met the criteria for bulimia as listed in DSM-III-R, which she read with the researcher conducting the sampling study on anxious subjects. Beth would go for four or five days without eating, then would binge eat. She had purged only twice, and that was 20 years earlier. However, she was constantly worried about her weight, exercised every day to control her weight, and admitted "obsessing" about food, and being unable to stop binge eating until all the food was gone. Beth sampled for 8 days; 37 of her samples were discussed in detail.
It should be noted that the salient characteristics of the inner experience of our bulimic subjects were not established a priori but rather, they emerged during debriefing sessions with each subject. Indeed, we were careful not to label or suggest labels to our subjects. We simply asked them to describe their inner experiences, and it was from these descriptions that the characteristics emerged. Although it is possible that in spite of the notes subjects wrote after the beep for each sample, their memory of the event had eroded, we made every effort to ensure that this possibility was kept to a minimum. Debriefing discussions were scheduled for the same day subjects collected samples or, at the latest, the following day. In the event that a subject canceled a session, she was instructed to sample again and the debriefing was rescheduled accordingly. Although this resulted in several samples being lost (that is, undiscussed) because of canceled sessions, those samples that were discussed were relatively "fresh."

It is widely acknowledged that denial and distortion affect the accuracy of self-reports in the eating disorders (Vitousek, Daly, & Heiser, 1991). Our method of descriptive experience sampling lessened the likelihood of these elements influencing subjects' accounts of their internal experience because subjects were not asked to discuss their bulimia directly, except in the context of one of their
sampled moments. Even then, it was made clear at the outset that subjects were free to decline to discuss any of these moments if they so desired. Additionally, subjects had the chance to elaborate or clarify their reports of their inner experience during the debriefing discussions.

It should be noted that although they are usually female (Crisp, 1982), bulimics constitute a large and diverse group of individuals whose only commonality for our purposes was that they suffered from the same eating disorder. Our subjects constitute a small, disparate, nonrandom sample. No attempt was made in this study to sample bulimics in any particular stage of bulimia or post-bulimia; the fact that our bulimics displayed a range of bulimic behavior was a coincidence.

Although we also sampled two nonbulimic subjects during this study, these subjects were not intended to be a control group, but merely to add to the pool of subjects whose inner experience has been sampled using this method. Thus, we shall not attempt to compare the characteristics of their inner experience with that of our bulimic subjects. Instead, we will discuss the salient characteristics of the inner experience of our seven bulimic subjects, our own five and Ashley (Hurlburt, in press), and Beth (Hebert, 1991), in ways that seem to differ from our sense of nonbulimic subjects discussed by Monson (1989), Hurlburt (1990), Hebert
In our discussion of the salient characteristics of the bulimic subjects' inner experience, we will begin by describing the salient characteristics that seem to set them apart from nonbulimic subjects, then proceed to describe generally their inner experience, which also differs in some ways from the experience of nonbulimics. It should be remembered that the comparisons we make below are but tentative attempts to characterize the similarities that our bulimic subjects showed, to set the stage for further study of the bulimic population.

Salient Characteristics of the Bulimic Subjects' Inner Experience

Table II on the following page is a summary of the percentage of samples in which bulimics experienced salient characteristics. This table is arranged with Emily, the healthiest subject, on the left, followed by Melissa, the next healthiest, and so on. Ashley and Beth, the previously-sampled subjects, are shown for purposes of comparison at the far right of this table. It can be said that Ashley was about as actively bulimic as was Monica, whereas Beth was actively binge eating but not purging, similar to Melissa.
Table II — Frequency of Characteristics of Bulimic Subjects

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Emi</th>
<th>Mel</th>
<th>Chr</th>
<th>Mon</th>
<th>Hea</th>
<th>Ash+Bet+</th>
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<tbody>
<tr>
<td>Number of Samples</td>
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<td>25</td>
<td>29</td>
<td>19</td>
<td>13</td>
<td>38</td>
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<td>Multiple Inner Experience</td>
<td>38*</td>
<td>60</td>
<td>72</td>
<td>84</td>
<td>85</td>
<td>100 ✓</td>
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<tr>
<td>Unsymbolized Experience</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experienced Unsymbol. Thinking</td>
<td>36</td>
<td>72</td>
<td>79</td>
<td>74</td>
<td>92</td>
<td>82</td>
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<tr>
<td>Wordless Inner Speech</td>
<td>9</td>
<td>0</td>
<td>7</td>
<td>47</td>
<td>46</td>
<td>++</td>
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<tr>
<td>Wordless Inner Hearing</td>
<td>0</td>
<td>12</td>
<td>10</td>
<td>5</td>
<td>0</td>
<td>++</td>
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<tr>
<td>Sensed Unsymbolized Thinking</td>
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<td>0</td>
<td>3</td>
<td>37</td>
<td>23</td>
<td>29</td>
</tr>
<tr>
<td>Multiple Unsymbol. Thinking</td>
<td>2</td>
<td>32</td>
<td>72</td>
<td>47</td>
<td>62</td>
<td>55 ✓</td>
</tr>
<tr>
<td>Feelings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Experienced) Feelings</td>
<td>71</td>
<td>38</td>
<td>69</td>
<td>88</td>
<td>85</td>
<td>74</td>
</tr>
<tr>
<td>Sensed Feelings</td>
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<td>0</td>
<td>3</td>
<td>13</td>
<td>8</td>
<td>37</td>
</tr>
<tr>
<td>Somatically-Oriented Feelings</td>
<td>40</td>
<td>36</td>
<td>52</td>
<td>75</td>
<td>23</td>
<td>++ ✓</td>
</tr>
<tr>
<td>Thought/Feelings</td>
<td>40</td>
<td>55</td>
<td>55</td>
<td>19</td>
<td>77</td>
<td>++ ++</td>
</tr>
<tr>
<td>Drives</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>++ ++</td>
</tr>
<tr>
<td>Multiple Feelings</td>
<td>18</td>
<td>20</td>
<td>33</td>
<td>38</td>
<td>18</td>
<td>92 ++</td>
</tr>
<tr>
<td>Inner Visual Experience</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Images</td>
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<td>3</td>
<td>53</td>
<td>15</td>
<td>25</td>
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<tr>
<td>Indetermin. Visual Exper.</td>
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<td>12</td>
<td>14</td>
<td>0</td>
<td>23</td>
<td>79</td>
</tr>
<tr>
<td>Inner Speech</td>
<td>66</td>
<td>4</td>
<td>0</td>
<td>16</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Inner Hearing</td>
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<td>12</td>
<td>0</td>
<td>11</td>
<td>8</td>
<td>0</td>
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<tr>
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<td>8</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bodily Awareness</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congruent Bodily Awareness</td>
<td>18</td>
<td>24</td>
<td>14</td>
<td>5</td>
<td>39</td>
<td>++ ✓</td>
</tr>
<tr>
<td>Incongruent Bodily Awareness</td>
<td>7</td>
<td>16</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>++ ++</td>
</tr>
</tbody>
</table>

+Previously-sampled bulimic: Ash is Ashley (Hurlburt, in press); Bet is Beth (Hebert, 1991).  
++This information was not available.  
*This and all remaining entries are percentages. Because characteristics overlap, percentages may not add to 100.  
✓Known to experience characteristic, but percentage unknown.
Multiple Inner Experience

We have described Multiple Inner Experience as a few, often several, separable, identifiable happenings, all taking place at the moment of the beep. Subjects perceived these inner events sequentially, yet somehow also simultaneously. The most striking finding in this study was that Multiple Inner Experience was a characteristic of the inner experience of all our bulimic subjects, as well as of the two bulimic subjects sampled previously. This is a sharp departure from the findings of other researchers sampling nonbulimic populations using this method—including anxious subjects (Hebert, 1991) and learning-disabled subjects (Schamanek, 1992)—where the phenomenon of multiply-experienced events at the moment of the beep was far less prevalent, if indeed it was reported at all. Inspection of Table II shows that, for our subjects, the percentage of samples containing Multiple Inner Experience is directly related to the degree of bulimic symptoms: the more actively bulimic the subject, the more multiple the inner experience. Whether this would be true in a larger, randomly-selected sample, however, remains to be seen.

The bulimic subjects experienced Multiple Inner Experience in various inner modalities. That is, many characteristics of inner experience, such as Feelings, Unsymbolized Thinkings, etc., may have been represented in a single sampled moment. Monica, for example, reported an
Unsymbolized Thinking, two distinct Experienced Feelings, an Unsymbolized Thinking verging on Wordless Inner Speech, and a two-part Sensed Unsymbolized Thinking—all at the moment of one beep. Sometimes, as was true with Christine, much of the Multiple Inner Experience was in the form of Multiple Unsymbolized Thinkings. In several samples, she was aware of numerous Unsymbolized Thinkings ongoing at the moment of the beep, perceived as being "braided together," overlapping in time but coming into her consciousness one after the other. Beth reported experiencing as many as ten Unsymbolized Thinkings at the moment of the beep (Hebert, 1991), and Ashley was aware of ten to twenty separate (but usually related) simultaneous Unsymbolized Thought processes (Hurlburt, in press).

Multiple Feelings were reported by all our subjects. Monica, for example, was aware of Sensed Feelings of stress and anxiety, an Experienced Feeling of anger, and a Thought/Feeling of disgust about eating, as well as Unsymbolized Thinking, all experienced simultaneously at the moment of the beep. Ashley reported Multiple Feelings, usually three to seven Feelings, in almost all her samples.

Sensed and Experienced Awareness

Another characteristic unique to the bulimic subjects was the phenomenon of Sensed awareness. Three of our subjects, Christine, Monica, and Heather, as well as the previously-sampled Ashley, reported Sensed Unsymbolized
Thinking or Sensed Feelings as occurring at the moment of the beep. As we have seen, Sensed Awareness was the knowledge that a thought or Feeling was ongoing, but the thought or Feeling itself was not directly being thought or felt at the moment of the beep. That is, the knowledge that the process was somehow ongoing was present, while the process itself was outside central awareness. The phenomenon of Sensed Awareness is unique to bulimics in that, to our knowledge, it has never been reported in the sampling of nonbulimic populations. Sensed awareness seemed to be relative to the degree of bulimia: only the actively bulimic subjects experienced Sensed awareness. All subjects who experienced any Sensed awareness reported both Sensed Unsymbolized Thinking and Sensed Feelings, often experienced multiply. Monica reported the largest proportion of samples containing Sensed Unsymbolized Thinking, which comprised fully half of her Unsymbolized Thinking samples.

Thought/Feelings
A third characteristic experienced by our bulimic subjects (but extremely rarely by nonbulimic subjects) was the relatively blurred distinction between thought and feeling. Our bulimics sometimes seemed to "think their feelings" or "feel their thoughts," a characteristic quite unlike other subjects, for whom the experience of thinking was distinctly different from the experience of feeling. Our language has different words for thoughts and feelings,
apparently because cognitive and affective awarenesses are, for most people, quite distinctly different. Thus, the phenomenon of thought feelings and felt thoughts led to our creating the Thought/Feeling category, describing moments where cognition and affect were experientially inseparable. Thought/Feelings were experienced by all our bulimic subjects, and apparently also by the previously-sampled subjects, Ashley and Beth, although the phenomenon was not called "Thought/Feeling" in those reports. Hurlburt (in press) described the difficulty Ashley had in describing the way that she apprehended many of her Feelings, and Hebert (1991) reported that for Beth, sometimes her Feelings "were experiences that were components of other experiences such as Unsymbolized Thinking," which appears to be describing a similar phenomenon. (This serves to demonstrate that characteristics of subjects' inner experience are not clear-cut categories with rigid labels but rather, "labels of convenience" that help us to describe more easily for the reader our subjects' reporting of their inner experience.)

The fact that bulimics (in this study, at least) often "think" their feelings, and "feel" their thoughts might explain why some subjects were a little hesitant at first to describe their Feelings, despite the fact that they all were unequivocal about experiencing Feelings. Heather, who reported the largest proportion of Thought/Feelings, stated on her first day of sampling that thinking and feeling were
not separate experiences for her. By the end of sampling, she almost never had reported a "pure" Feeling, that is, one with no "intellectual" attribute but only an emotional component. Instead, all her Feelings could be arranged on a continuum of Thought/Feelings, as her Feelings always possessed some degree of cognition. Christine, when describing a Thought/Feeling, stated that when she experienced such a Feeling, her mind became a little "fuddled."

Incongruent Bodily Awareness

We have described Bodily Awareness as the awareness of bodily sensations that do not have a particular emotional significance. This lack of an emotional component is what distinguishes Bodily Awareness from Feelings that, as we have seen, also may manifest themselves somatically. Bodily Awareness was either Congruent Bodily Awareness (reported by all our bulimic subjects, not including the previously-sampled subjects), an awareness that reflected their actual physical state at the moment of the beep, or Incongruent Bodily Awareness (reported only by Emily, Melissa, and Christine, our least-sick subjects), which did not mirror the subject's current physiological condition. Incongruent Bodily Awareness has been reported only very rarely by nonbulimic subjects (R. T. Hurlburt, personal communication, March 13, 1992); the overall frequency for our bulimic subjects was 6% (not including Ashley and Beth).
Melissa, for example, had an Incongruent Bodily Awareness of sitting sideways in front of the television set and having to turn her head to view the screen; in actuality, she was sitting facing the set, and did not have to turn her head at all. Christine and Melissa experienced Incongruent Bodily Awarenesses that consisted of a sense of "puffing up" or expansion of the body. Christine was aware of the sense of the "puffing up" of her body in two samples. In both instances, the expansion was perceived to be in the areas of her body with which she was dissatisfied: thighs, upper arms, hips, and face. In Melissa's case, she experienced an Incongruent Bodily Awareness of being uncomfortable in her own skin, making her feel that she was trapped inside her skin, unable to escape. However, Melissa's sensation was located not in her body, but in her head, although it was perceived as a "pushing out" or expansion of her body.

Other Characteristics of the Inner Experience of the Bulimic Subjects

In addition to Multiple Inner Experience, Sensed and Experienced awareness, Thought/Feelings, and Incongruent Bodily Awareness, the bulimic subjects' inner experience contained other characteristics, which we will describe and compare to our sense of the nonbulimic population.

Unsymbolized Thinking
Unsymbolized Thinking, as we have seen, is the experience of thinking the meaning of a thought without the presence of words, Images, Feelings, or other symbols. There is considerable variability in the frequency of Unsymbolized Thinking in nonbulimic subjects, ranging from very little in so-called normal populations (those not suffering from a particular psychological problem) to as much as 75% of the samples of depressed subjects (Hurlburt, 1990). Anxious subjects reported Unsymbolized Thinking in 46% of their samples (Hebert, 1991), and it was found in 36% of the samples of learning-disabled subjects (Schamanek, 1991). Bulimic subjects reported Unsymbolized Thinking in 73% of their samples—about as often as Hurlburt's depressed subjects. Interestingly, however, bulimic subjects seldom reported feeling depressed, and few of the Feelings in their samples were described as depression. They were far more likely to report Feelings of anger, annoyance, irritation, guilt, impatience, stress, anxiety, and frustration. (We will discuss more about Feelings in an upcoming section.)

As we noted earlier, all the bulimic subjects experienced multiply-occurring Unsymbolized Thinkings. Additionally, most subjects reported Unsymbolized Thinking that verged on Wordless Inner Speech, where there were no words and no sense of producing speech in a thought that was perceived nonetheless to be somehow verbal and spoken. In the case of Unsymbolized Thinking verging on Wordless Inner
Speech, subjects seemed to have difficulty making the
distinction between Unsymbolized Thinking and Wordless Inner
Speech (hence the term Unsymbolized Thinking verging on
Inner Speech); this is another example of their inability to
distinguish between two types of inner events. As we have
seen, all subjects experienced Unsymbolized Thinking and
were quite comfortable with the difficult-to-understand
knowledge that they could know about thoughts that had no
words, Images, etc. Also, all but one subject (Christine)
reported Inner Speech, and had no trouble determining that
words were present to awareness in those samples. They were
equally convinced that no words were present, yet were
understood to be spoken in samples where they experienced
what we call Unsymbolized Experience on the threshold of
Wordless Inner Speech.

For our bulimic subjects, this experience was as if the
subject had the distinct impression that she was talking to
herself without using words and without having the sense of
creating the speech. Hurlburt (1990) and Hebert (1991) have
discussed a similar phenomenon they called Wordless Speech.
The difference between Wordless Speech and the Unsymbolized
Thinking verging on Wordless Inner Speech experienced by our
subjects is that--unlike the other researchers' subjects--
our subjects did not have the sense of speaking, even though
the thought was perceived as having been spoken and was not
mentally heard.
Monica and Heather (our most actively bulimic subjects) were the only ones who reported significant occurrences of Unsymbolized Thinking on the threshold of Wordless Inner Speech. A similar phenomenon, Unsymbolized Thinking verging on Inner Hearing, was reported in a small proportion of samples by Christine, Monica, and Melissa.

Feelings

Feelings, the experiencing of emotion with or without a bodily manifestation, were reported by all our bulimic subjects, and almost all subjects at times experienced Feelings multiply. According to Hurlburt, the experience of Feeling is moderately infrequent in normal subjects, occurring in perhaps 10% to 15% of samples (R. T. Hurlburt, personal communication, March 13, 1992), although Monson (1989) reported a 50% frequency of Feelings in her young subjects. All but two of our bulimic subjects experienced Feelings in 70% or more of their samples; the average overall was 67%. Thus, Feelings were far more frequent for our bulimics than for normal subjects, and at about the same frequency as learning disabled subjects (Schamanek, 1991); anxious subjects experienced Feelings in an average 55% of their samples (Hebert, 1991).

Normal subjects experience Feelings as differentiated phenomena that are generally understood to take place in the body, particularly in the chest (Hebert, 1991). All our bulimic subjects, too, often experienced Feelings that
manifested themselves in their bodies, most often in the head and upper torso, but also in the arms, the stomach, and other areas. We called these experiences Somatically-Oriented Feelings. Our bulimic subjects also reported a number of other Feelings, which have already been discussed above: Thought/Feelings, Sensed Feelings, and Multiple Feelings. All these phenomena seem to be distinctly characteristic of the bulimic subjects.

**Inner Visual Experience**

All the bulimic subjects reported Inner Visual Experience. For them, Inner Visual Experience ranged in color and clarity, from clear, colorful Images, complete with detail, to blurry, indistinct Images that may or may not have been in color, where only some of the components could be described, to Indeterminate Visual Experience, which was understood to be inner visualization, but where, nonetheless, the characteristics of the Image were difficult or impossible to specify.

At an average frequency of 30% across bulimic subjects, the occurrence of Inner Visual experience seems to be in line with that of normal subjects. However, our subjects reported the same proportion (20%) of instances of Indeterminate Visual Experience as of Images, which sets them apart from normal subjects, who experience very little Indeterminate Visual Experience. For comparison, Hebert's (1991) anxious subjects reported that 14% of their samples
included Indeterminate Visual Experience—also a relatively high frequency, and Schamanek's (1991) learning disabled subjects reported none.

However, all of Monica's Inner Visual Experience consisted of Images. Her Images were all in color, and ranged from very clear to somewhat indistinct. Emily's Images could be arranged on a continuum of color and clarity, from very colorful to black and white, and from very clear to quite indistinct, verging on Indeterminate Visual Experience. The other subjects reported more Indeterminate Visual Experience than Images (with the exception of Melissa, who reported the same proportion of occurrences of Images and Indeterminate Visual Experience).

Christine and Emily both reported experiencing Images in which they were "scanning" a series of scenes to retrieve certain information. All the scenes were present in their awareness simultaneously, yet they were able to focus separately on each scene. A similar phenomenon was reported by Monica: Images that "switched" from one to another. Monica experienced an Image that she described as the same picture, seen from two different perspectives: as if looking at the scene with her own eyes, and as if looking at herself in the scene. That is, Monica was aware of the external, bystander's perspective, then when she saw herself in the Image, it "switched" to Monica looking at herself, after which the Image "switched" again to another, very
indistinct Image. As Monica described it, all this was happening simultaneously at the moment of the beep. Emily, too, reported that in one of the Images she was scanning, two pictures of buildings alternately "switched" so that she could make a decision about which was the one in which her meeting was scheduled.

Ashley (Hurlburt, in press) reported that sometimes her Images occurred in sequence, although they all were perceived to be in her awareness at the moment of the beep. The passing from one Image to the next was for Ashley a smooth transition, and seemed to change faster than frames in a movie. Like Christine and Emily, Ashley also experienced a sense of choice with respect to these Images, "as if there were many other Sensed Images which could have been seen...and Ashley was choosing which ones were being made explicit in this sequence."

Most of the normal subjects' Inner Visual Experience frequently was accompanied by strong emotional experiences (Feelings). This phenomenon varied widely in our bulimic subjects. On the one hand, none of the samples in which Melissa reported Images included Feelings of any kind, and on the other hand, Heather reported a visual experience that had such strong emotional overtones, we called it an Image/Feeling, rather than an Inner Visual Experience. Ashley's Inner Visual Experience—indeed, virtually all her inner experience—was accompanied by Feelings, sometimes
several; the same is true of Christine’s Inner Visual Experience. Heather had one Image in the absence of Feeling, Monica and Emily had two.

**Inner Speech and Inner Hearing**

**Inner Speech.** Inner Speech is the experience of the inner speaking of words in one’s own voice, with one’s own tone, inflection, and rate of speaking. With the exception of Emily, whose frequency was 66%, Inner Speech was a relative rarity for the bulimic subjects (overall frequency was 14%; excluding Emily but including Ashley and Beth, it was 6%). Inner Speech occurs relatively frequently in normal subjects, but there are large individual differences (R. T. Hurlburt, personal communication, March 13, 1992). Monson (1989) found 21% of her subjects’ samples included Inner Speech, Hebert’s (1991) anxious subjects experienced Inner Speech in 31% of their samples, and Schamanek’s (1991) learning disabled subjects reported the phenomenon in only 10% of their samples. Thus, bulimics are almost as devoid of Inner Speech as the learning disabled population. However, bulimics also experienced Unsymbolized Thinking verging on Wordless Inner Speech—not noted in other subjects—which might have been understood as a wordless form of Inner Speech, had the bulimic subjects been able to make the distinction between Unsymbolized Thinking and Wordless Inner Speech.
**Inner Hearing.** Inner Hearing, the experience of hearing either one's own or another voice being spoken in one's mind, was experienced even less often than Inner Speech in our bulimic subjects, occurring in only 5% of the samples. This is in keeping with the low frequency of Inner Hearing in all populations sampled so far.

**Thoughts Relating to Bulimia**

One obvious question one might have when discussing the bulimic population—considering that, whatever its etiology, bulimia is an eating disorder in which individuals are obsessed with food and their weight—is how often such subjects are thinking about food, binge eating, purging, their weight, and exercising. The answer is: it varies (at least among the subjects sampled in this study; we do not have enough information to report on the previously-sampled subjects). That is not to say, of course, that the frequency with which these thoughts occurred in their sampled moments is unequivocally representative of the bulimic subjects' actual thoughts on these matters.

All our subjects reported one or more thoughts about food at the moment of the beep. It should be noted that content categories—those that contain specific themes—usually are rare. In contrast, our bulimic subjects reported thoughts about food, etc., relatively frequently: for Emily it occurred in 4% of her samples, for Melissa 16%, for Christine 3%, for Monica 4%, and for Heather 8%. Both
Emily's samples about food were strong Feelings that we described as Drives. One of these Drives incorporated a strong need to taste the cake she was Imaging, complete with the sense of salivating (which she was not). The other, a wanting to eat yogurt, which accompanied an Image of the yogurt shop, was a strong desire for the yogurt; this Drive also involved salivation, but no taste. Melissa, in one sample, also experienced the sense of tasting food she had eaten earlier. Beth was aware of the taste of a cookie in one sample (Hebert, 1991). All Melissa's thoughts about food occurred while— or shortly after— eating in reality. Three of Monica's four thoughts about food were disgust at herself or someone else for eating; one was a wanting of food. Christine's sole thought about food was a Congruent Bodily Awareness of having a knot in her stomach because she had bolted down her lunch. Heather's only food-related thought was a dim Sensed awareness of food when she was doing her homework in the restaurant where she worked.

None of the subjects were thinking about binge eating at the moment of the beep. Monica and Heather were the only two who thought about purging. Monica had one sample in which she had the urge to vomit; this was accompanied by a Feeling of disgust. Heather, on the other hand, reported purging-related thoughts in four of her thirteen samples. In one sample, she was aware of making the decision whether to purge; in another, she had an Image/Feeling (discussed
briefly above) of the webby substance she experiences coming from her stomach when she vomits; in a third instance, she had a desire to purge; and in the fourth, she was concerned at the size of her saliva glands, swollen as a result of her frequent vomiting.

Christine was the only subject who had thoughts about her weight at the moment of the beep. Two of her samples involved a perception of "puffing up," discussed earlier in the section on Incongruent Bodily Awareness. Emily, Melissa and Monica—all of whom were working out to try to control their weight—had thoughts about exercising.

Ashley (Hurlburt, in press) was asked specifically to sample at times when she thought that she was likely to purge; she complied one day (the last day) of her sampling period. On that day, Ashley experienced Multiple Experienced Unsymbolized Thinkings—she called it a "funnel" of thoughts—that incorporated the possibility of choice over whether to vomit. Also present to her awareness were two Sensed thoughts, vestiges of thoughts that had been the explicit focus of her attention a moment before, as well as an Indeterminate Visual Experience of a hot dog. A number of Feelings, including a driving to throw up, a loneliness, and an emptiness were strong characteristics of Ashley's sampled moment. On this occasion, although the urge to vomit was strong, Ashley did not purge. Neither did she vomit on the other two occasions—both of which included
Multiple Inner Experience—on that same day when she was signalled by the beeper, although she stated that this was the first time in her recollection that she had such a strong urge to throw up and did not do so.

Summary

Anorexia nervosa (self-starvation) and bulimia nervosa (binge eating, often followed by purging) are eating disorders whose incidence seems to be increasing. In the past decade, there has been a proliferation of literature published on these distressing conditions, although bulimia was not introduced as a separate nosological entity until 1980, when it was classified in DSM-III-R. In 1987, the American Psychiatric Association renamed the disorder "bulimia nervosa" and, for the first time, provided clear-cut, unambiguous diagnostic criteria.

Researchers have speculated that individuals with bulimia form a subgroup among patients with anorexia nervosa. In fact, bulimia is quite common in anorexia (Casper, Eckert, et al, 1980; Garfinkel, Moldofsky, & Garner, 1980). Russell (1988) noted that there is a link between anorexia and bulimia and has expressed doubt as to the wisdom of attempting too precise a separation between the two disorders. We have followed this advice in including Heather, who was anorectic and exhibited bulimic behavior, among our bulimic subjects.
To date, there has been no clear-cut etiology of bulimia but broadly, the precipitation of the condition is seen as the cumulative effect of multiple predisposing factors in several areas of the individual's life: sociocultural contributions, including family factors; cognitive functioning and affective patterns; biological factors; and personality factors.

Bulimics have been found to be impulsive, prone to addictive behaviors and somatic preoccupation, emotionally turbulent, depressed, experience self-confidence deficits, and suffer from body size distortion and body dissatisfaction (Casper, Eckert, et al., 1980). However, Goode (1985) cautions against drawing conclusions based strictly on personality characteristics, as it may be difficult to distinguish between the illness-generated behaviors and compensatory response behaviors in bulimic individuals. But if, as Beck (1976) suggested, individuals with the same psychiatric diagnoses tend to have similar patterns of disordered thinking, and if the characteristics of thinking are indeed idiosyncratic, it can be expected that the characteristics of bulimics' thought content would be similar. This clearly was true of the bulimics in our study. Thus, sampling the inner experience of bulimics might provide another method of gaining insight into the mental processes of this population, providing an additional window into their psyches, perhaps helping to explain why,
regardless of the precipitating factors, some individuals develop eating disorders whereas others do not.

However, it is important to stress that the characteristics of the bulimic subjects in this study cannot be considered to be representative of bulimic individuals overall in the general population. Our sample was small and nonrandom; thus, the results cannot be generalized to the population at large.

We have seen that the most salient characteristic of our bulimic subjects was Multiple Inner Experience. This unusual characteristic was universal among our subjects, and indicates that there was a large amount of mental activity ongoing in their minds at any one moment. One might speculate that this may have contributed to the confusion subjects exhibited in differentiating certain aspects of their inner experience, such as between thoughts and Feelings, or between Unsymbolized Thinking and Wordless Inner Speech. Perhaps they simply do not have the time (or energy) to sort out their thoughts because there are just too many of them to decode at any one moment. Also, the sheer number of simultaneous thoughts may be one reason that our bulimics reported Sensed and Experienced awareness; some thoughts may have to be put "on hold" while others are being processed.

This is suggestive of a finding of Brouwers (1988), who used a rationalistic cognitive approach to identify typical
thought content among bulimic female college students. She found that, because many women with bulimia engage in an "all or nothing" type of circular thinking (Lacey, 1982; Russell, 1979), their thoughts often become jumbled, making decisions hard to make, and thus, they may suffer from chronic indecision. Multiply experienced thoughts, such as those reported by our bulimic subjects, might well be the result of such jumbled thinking, or, conversely, the jumbled thinking may be a result of the plethora of mental processes that the bulimic often experiences; further research may provide the answer. The fact that the frequency of Multiple Inner Experience was directly related to the severity of bulimic symptoms suggests that, for whatever reason, active bulimics experience more multiple mental activity than their less-active counterparts, and all bulimics experience more multiply-experienced mental activity than nonbulimics sampled using this method. One might speculate that Multiple Inner Experience could be the "third variable" theorized by Leung and Steiger (1991) that, along with other risk factors, increases an individual's vulnerability to both eating disorders and affective disturbances.

The frequency with which our bulimics experienced Feelings bears witness to the theory that bulimics are emotionally turbulent (Garner, Rockert, et al, 1985; Gordon, 1990). As we have seen, they reported Feelings far more often than the normal population, and all the bulimic
subjects reported Multiple Feelings. Among others, Casper, Eckert, et al. (1980) reported that bulimics do not overeat just to ease hunger sensations, but also to relieve distressing emotions (Elmore & de Castro, 1990). This reflects the rationale of some of our subjects—Monica was preparing to binge as soon as she arrived home after hearing that her ex-boyfriend was happy with his new girlfriend, for example.

As reflected by their reported Feelings, our bulimic subjects appeared to be somewhat out of touch with their Feelings. They often confused thinking and Feeling, sometimes thinking Feelings and feeling thoughts, and vice versa. It could be speculated that bulimics are not easily able to separate their emotions from their cognitions and thus, they find their emotions unduly distressing, which in turn cues them to binge.

All our bulimic subjects reported a considerably greater proportion of negative Feelings than of positive ones. This supports the prevailing view of bulimics as holding a more negative view of themselves and others; possessing a more helpless, hopeless world-view; and having a generally bleaker outlook on life than nonbulimic individuals (Butterfield & Leclair, 1988), as well as and having a depressogenic style of cognitive processing (Dritschel, Williams & Cooper, 1991).
Hurlburt (1990) reported high occurrences of Unsymbolized Thinking in depressed subjects. Because many researchers have concluded that bulimic individuals tend to be depressed—whether it be a primary or secondary characteristic (Garner, Garfinkel et al, 1980)—one would have expected our bulimic subjects to experience high incidences of Unsymbolized Thinking, which indeed they did. Interestingly, however, our subjects reported suffering depression rarely, and it was equally rarely noted in their inner experience (although as mentioned earlier, content areas generally have a low frequency of occurrence). Rather than depression, our bulimic subjects were more likely to report more active emotions, such as anger, frustration, tension, stress, and anxiety as Feelings in their inner experience. This is intriguing because anger was described by Lacey (1985) as the predominant clinical symptom, apart from the eating disorder, of the largest of three of her classifications of bulimics, which she described as the "neurotic group." According to Lacey, the anger experienced by the bulimics in this group is often initially denied, with patients declaring sadness or depression instead—the reverse of the reported Feelings of the bulimics in our study.

Our bulimic subjects reported experiencing more Bodily Awareness than do other populations sampled using this method. This is consistent with the findings of many
researchers that bulimics are more aware of bodily functions and have more somatic complaints than the general population (Casper, et al., 1980; Brouwers, 1988).

Bulimic subjects also reported Incongruent Bodily Awareness, an imaginal awareness of body and bodily processes that does not reflect the body's actual condition. This phenomenon has not been reported in any of our sampled nonbulimic subjects, and indeed, was far from widespread even in our bulimic subjects. Confusion and mistrust related to bodily sensations have been clinically observed in some eating-disordered patients; it has been noted that such patients may not be able to recognize and respond reliably to body sensations because these have acquired an inappropriate meaning (Garfinkel & Moldofsky, 1980). Perhaps our subjects' Incongruent Bodily Awareness reflects these deficits in perceiving bodily sensations.

Interestingly, two subjects reported experiencing a perceived expansion of their bodies; this is reminiscent of the body image distortion thought by many researchers to be prevalent among bulimics (Farley, 1986; Hsu & Sobkiewicz, 1991). Christine's "puffing up" sensation was much like that of Gordon's (1990) patient who felt victimized by a "pumping mechanism" that made her "balloon up." Whether or not it is a related phenomenon, it is further evidence that bulimics may experience distorted views of their own bodies.
Self-imposed pressure and chronic tension--fueled by falling short of one's own or others' expectations (Butterfield & LeClair, 1988); and guilt (Beck, 1976) are characteristics that have often been ascribed to bulimics. Garner & Garfinkel (1984) asserted that bulimics have an obsessive preoccupation with performance and achievement, and have perfectionistic strivings. According to these researchers, bulimics critically judge all their efforts and report a persistent sense of guilt and shame, which is all the more painful because they are desperate to gain approval and acceptance through their achievements. Emily and Christine both experienced several Thought/Feelings that incorporated an underlying sense of urgency, a need to accomplish something, (and, in Emily's case, guilt over not measuring up to her own expectations and conflict because she was not conforming). Monica, too, reported similar inner experiences, as to a lesser extent did the other bulimic subjects. (But inasmuch as self-imposed pressure and chronic tension might be considered mutually inclusive and, perhaps, an inescapable factor of modern life, it is difficult to make a case for this characteristic being restricted to the bulimic population.)

The relative frequency of the bulimic subjects' reports of eating- and weight-related thoughts compared to nonbulimic subjects sampled using this method supports similar findings. After investigating several
characteristics of the cognitions of bulimics, using an in vivo sampling procedure (described in detail in Chapter 1), Zotter and Crowther (1991) found that bulimics reported significantly greater proportions of negative affective thoughts and distorted eating- and weight-related thoughts, including thoughts of body shape, than did controls.

It goes without saying that all the above is speculation and that any comments, of course, are tentative and await further study. Additionally, the author acknowledges that there was a lapse of several months between the time some subjects' samples were collected and discussed and the subsequent transcribing of the author's notes taken at the debriefing sessions.

Certainly, however, the characteristics of our bulimic subjects' inner experience provided some interesting glimpses into their innermost self-view and world-view, and as such—particularly since most researchers attribute bulimics' specific problems to these views—merit further investigation.

Additionally, it has been often been claimed that eating-disordered individuals (and their families) do not know how to explore and share their inner experience (Gordon, 1990). When they seek help in therapy, it is the therapist's job to help the patient direct her attention to her inner experience, that is, to look inward to find out
what she is feeling. Descriptive experience sampling is one method by which this may be accomplished.
Chapter 11

The Nonbulimic Subjects

The following two chapters describe the inner experiences of our nonbulimic subjects. Both were volunteers who expressed interest in the descriptive sampling method of "tapping into" their inner experience. Both subjects continued to sample until the researcher and Dr. Hurlburt judged that we had collected sufficient samples.

Ted was a 52-year-old married businessman from the community who was known to the author. Jessica was a 25-year-old married senior at the university. Neither subject had ever experienced symptoms of bulimia, nor did they suffer from any other acknowledged diagnosable mental disorder.

These subjects were sampled simply to add to the data base of individual inner experience. They were not intended to serve as a control group. Thus, they can in no way be considered a representative sample of any normal subject pool, as was true in Hurlburt's (1990) control group. We turn now to a brief discussion of the salient characteristics of the nonbulimic subjects.
Salient Characteristics of the Inner Experience of the Nonbulimic Subjects

Table III on the following page summarizes the percentage of samples in which the nonbulimic subjects experienced salient characteristics.

Multiple Inner Experience

We have described Multiple Inner Experience as the occurrence of a few— or several—inner events, all happening simultaneously at the moment of the beep. Ted, but not Jessica, reported multiple inner events ongoing at the moment of the beep. For Ted, Multiple Inner Experience was an uncommon phenomenon; it was reported in 4 (13%) of his 30 samples. For the most part, this multiplicity consisted of two to four separate incidences of one or two characteristics in a single sampled moment.

Unsymbolized Thinking

Unsymbolized Thinking, as we have seen, is knowing the content of a thought without the presence of words, Images, Feelings, or other symbols. Unsymbolized Thinking was not prevalent in Ted's inner experience; he reported it in only 20% of his samples. Jessica, on the other hand, reported Unsymbolized Thinking in a large proportion (81%) of her samples.

For Jessica, Unsymbolized Thinking was the dominant characteristic of her inner experience. In fact, there were only four samples in which Unsymbolized Thinking did not
Table III

Frequency of Characteristics of Nonbulimic Subjects

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Ted</th>
<th>Jessica</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Samples</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>Multiple Inner Experience</td>
<td>13*</td>
<td>0</td>
</tr>
<tr>
<td>Unsymbolized Thinking</td>
<td>20</td>
<td>81</td>
</tr>
<tr>
<td>Feelings</td>
<td>40</td>
<td>29</td>
</tr>
<tr>
<td>Somatically-Oriented Feelings</td>
<td>33</td>
<td>19</td>
</tr>
<tr>
<td>Thought/Feelings</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Images</td>
<td>67</td>
<td>14</td>
</tr>
<tr>
<td>Inner Speech</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Inner Hearing</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Bodily Awareness</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

*This and all remaining entries are percentages. Multiple characteristics can be identified at a single stage, so at times percentages may not add to 100.

In a few cases, Jessica's Unsymbolized Thinking was in the form of Wordless Inner Speech or Wordless Inner Hearing, where even though no words were present to her awareness, the thought was understood to be verbal. Additionally, Jessica had the perception that she was talking to herself or hearing herself speaking. Ted reported no such phenomena.

Feelings

Both Ted and Jessica reported experiencing Feelings. Feelings occurred in 40% of Ted's samples. Most (83%) of his Feelings were Somatically-Oriented Feelings, which we
have described as emotionally-charged inner events that manifested themselves in the body. For Ted, Feelings were located most often in his chest, but sometimes were perceived to be in his head and upper body. Anger was the Feeling Ted reported most often, but he also experienced a variety of other pleasurable and not-so-pleasurable Feelings.

Jessica, who reported Feelings in 29% of her samples, also experienced Somatically-Oriented Feelings, which made up two-thirds of her Feelings samples. Jessica's Somatically-Oriented Feelings were perceived to be experienced in her chest, upper body, and stomach. Her Somatically-Oriented Feelings were always described as unpleasant experiences, such as disappointment, dread, fear, and loneliness. The two Feelings samples in which Jessica could not specify a bodily location or somatic manifestation, jealousy and irritation, also were disagreeable Feelings.

Ted, but not Jessica, also reported Thought/Feelings, which we have described as Feelings possessing both an emotional and a cognitive component, in two (17%) of his samples.

Images

Both Ted and Jessica reported experiencing clear Images. For Ted, Images were his most frequently experienced characteristics; Images were reported in 67% of
his samples. Most of his Images were perceived to be in colors congruent with reality. Ted reported that his Images were in his left visual field. In three of his samples, his Images changed quickly from one inner scene to another, although all were understood to be ongoing at the moment of the beep. Ted referred to this phenomenon as "a quick flash/flash."

Images occurred in 14% of Jessica’s samples. Her Images ranged from clear to very clear, and were in true-to-life colors.

**Inner Speech**

Ted, but not Jessica, reported experiencing Inner Speech, the sense of talking to oneself in one’s own voice, complete with the usual tone, inflection, and rate. (However, as discussed above in the section on Unsymbolized Thinking, Jessica experienced Wordless Inner Speech.) Inner Speech was not a common experience for Ted; it occurred in only 7% of his samples.

**Inner Hearing**

Jessica, but not Ted, reported one instance of Inner Hearing, in which she had the perception of hearing spoken words in her mind at the moment of the beep.

**Bodily Awareness**

Only Ted experienced Bodily Awareness, which is the awareness of one’s current bodily state. Again, it was not
a common occurrence for Ted, having been reported in only 7% of his samples.

Summary

It might be said that the inner experience of the two nonbulimic subjects was rather straightforward, consisting of inner events that in general are consistent with the inner experience of other so-called normal subjects sampled (Hurlburt, 1990; Hebert, 1990; Schamanek, 1991). Indeed, neither of these nonbulimic subjects experienced any characteristics of inner experience that have not been reported previously by other normal subjects.

The proportion of Unsymbolized Thinking reported by Jessica was extremely high compared to the incidence of this characteristic in normal populations, where one might expect to find the frequency of Unsymbolized Thinking to be low (Hurlburt, 1990). Jessica's reported samples contained Unsymbolized Thinking at a frequency more often seen in depressed subjects. Jessica, however, did not report experiencing depression at the time of sampling.

Ted's Thought/Feelings, although infrequently reported, also represented a departure from the normal population's inner experience. In fact to date, Thought/Feelings have not been reported in populations other than the bulimic subjects.
We shall have to await the results of further research in the descriptive sampling method in order to determine what to make of these divergences from the reported inner experiences of normal subjects.
Chapter 12

Ted

Ted (not his real name) was a 52-year-old businessman at the time of sampling. The only criterion for Ted to participate in the study was that he not be bulimic. After assuring us that he was not bulimic, he also informed us that, to his knowledge, he was not suffering from any psychiatric disorder. Although trained as a CPA, Ted was not working in the field of accounting at the time he participated in the study. Instead, he was self-employed, working in his own business.

Ted used the beeper on six days over a two-week period. We discussed in detail 30 samples. In the next few paragraphs, we will provide an overview of Ted's inner experience, then return to provide a complete description of his sampled moments.

The most salient characteristic of Ted's inner experience as described in his sampled moments was the occurrence of visual Images. Imaginal thinking was a feature in over two-thirds of his reported samples. He also experienced Feelings in 40% of his samples. For Ted, the vast majority of his Feelings were Somatically-Oriented Feelings, where the experience was manifested as "physical" sensations with emotional overtones. However, he also
reported Thought/Feelings possessing both "physical" and emotional components in 17% of his samples.

Unsymbolized Thinking was reported in several (20%) of Ted's samples; Inner Speech and Bodily Awareness each was represented in 7% of his samples. Ted reported Multiple Inner Experience, where several inner experiences were ongoing at the moment of the beep, in 13% of his samples.

Multiple Inner Experience

In 4 of Ted's 30 samples, he reported experiencing two or more separate events, all ongoing at the moment of the beep. Sample #6 offered an example of Multiple Inner Experience. Ted was in the warehouse of his stationery store, collating monthly date books into 12-book sets. The main focus of his inner experience at the moment of the beep was an Unsymbolized sense of having been deprived of having "a 100% good feeling, a total good feeling."

Simultaneously, he was aware of a Feeling of gladness, manifested as a little "rush" felt in his chest and head, as though his heart had fluttered (which it did not in reality).

Also simultaneously, Ted was saying to himself in Inner Speech, "I'm glad we sold out of date books, but I wish our distributor [for another product] had been better." He was thinking in words, verbalizing, as though he were saying the
words out loud in his regular inflection and rate of speed, but he did not actually utter the words aloud.

At the same time as the Feeling and the Inner Speech, or very closely thereafter—Ted referred to this interval as a nanosecond—he experienced a disappointed Feeling, which he stated was not the opposite of the glad feeling. Instead, this was more of a calm, half-wishing something (the portion of the business handled by the master distributor that had not resulted in the hoped-for percentage of sales) were different, a little better. Ted could not pinpoint the physical location of this disappointed Feeling.

Images

Images were the most frequently occurring of Ted's salient characteristics; he reported Images in 20 (67%) of the samples we discussed in detail. Almost all of Ted's Images were clear pictures and most were depicted in the true-to-life color. He noted that his Images often were located in his left visual field (he speculated that this might be because he is left-handed).

Sample #28, in which Ted's only inner experience was an Image, provided an example. He was sitting at his kitchen table, talking with his wife and his niece about moving stationery from one of his stores to his new store. At the moment of the beep, he had an Image of display cases and an
orange and black Hertz Rent-a-Truck. In comparison to the size of the display cases, the Imaged vehicle was the size of a toy truck. Ted was aware of the whole truck in his Image. The truck was perceived to be out in front and to the left of the Image, seen from behind, yielding a three-quarter view. There also were several display cases in his Image, standing in disarray, and perceived there to be more distance between himself and the truck than there was between himself and the display cases.

Another illustration of an Image, again the only inner experience reported in the sample, was Sample #2. Ted was sitting at his desk in his office, on hold on the telephone with one of his suppliers. At the moment of the beep, he was picturing the supplier in his messy office. In his Image, he saw the man sitting at his desk, seen from the perspective of the secretary's desk, as if Ted were standing at her desk and somehow seeing his Image through her telephone receiver into the supplier's office (although Ted did not perceive himself to be part of the Image). He saw the supplier clearly, sitting behind his desk, but was more aware of his head than anything else. There was no expression on the Imaged supplier's face. Ted was not aware of the rest of the Imaged supplier's body. The image was not in color, but instead was bland and grayish, "the color of corrugated shipping cartons." Ted noted that in the peripheral vision of his Image, he saw piles of corrugated
shipping cartons in the supplier's office (typical of the condition of that office in reality). Although there were no edges to Ted's Image, he described it as being like a snapshot, a still picture, with nothing moving, seen at two arm's lengths in front.

In Sample #29, Ted experienced an Image of Dr. Hurlburt. Ted [who had met Dr. Hurlburt briefly in the past, but who had forgotten the incident] described the Imaged professor as a thin, middle-aged man standing on the grass in front of a Roman-style building, wearing a suit jacket, slacks, and sandals. The Imaged building had whitish marble columns. Although Ted "knew" the scene was on the university campus, he could not say how he knew this. Additionally, he stated that the Imaged building was not like any building he had ever seen before. The Imaged Dr. Hurlburt was standing to the center of the Image, slightly to the left; the building was on the right. Both the professor and the building were perceived as though seen sideways, across Ted's line of vision.

In three of Ted's samples, he reported that his Images changed quickly from one pictured scene to another. Sample #10 illustrated this phenomenon. Ted was working at the computer in his office and looking at the small printer situated to the left of the computer, monitor, and keyboard on the desk. At the moment of the beep, he was visualizing the larger printer (located in reality in another office)
superimposed over the smaller printer that he was looking at in reality. Ted reported that the larger printer in his Image almost "blotted out" the real smaller one. The printer had no paper. The large printer was in the left of Ted's Image, but the Image did not include the computer, monitor, or keyboard, although he was aware there was space for these items in his Image.

Just after this Image of the larger printer, Ted had another "flashing Image" in which he saw a sheet of the wider paper that is used in the larger printer. He was not aware of the whole length of the paper, and the paper was not in the printer. Then, in a third Image that Ted described as being a "kind of a quick flash/flash" he visualized an 8 1/2" x 11" sheet of paper that he "knew" was the cash receipts journal, even though there were no columns of data on this Imaged paper. He did not see the whole length of the cash receipts journal. Ted reported both Imaged sheets of paper were "just there, floating." All his Images--the large printer superimposed over the small one he was actually looking at, the sheet of wider computer paper, and the cash receipts journal were all perceived to be in his left visual field.

Another example of quickly changing Images was found in Sample #13. Ted was sitting at his desk, talking on the intercom with the secretary. He was telling her he had shipped two packages, one weighing 30 lbs, the other
weighing 11 lbs. The beeper sounded just as he had finished saying "11 lbs." At the moment of the beep, Ted had an Image of the numbers 30 and 11. The numbers were hand-written in black, seen as if from arm's length. There was no background in the Image, and the numbers were seen as if suspended, with the 30 on the left and the 11 positioned below it on the right, tilted a little towards the right.

A "nanosecond" later, Ted's Image changed to one of the weight column of the UPS book. The column had the heading "LBS" in black letters, with black lines for the entries. The weight column appeared to Ted to be the same color and size as it is in reality, but there were no numbers written in the column. He was not aware of any beginning or ending of the Imaged column.

In Sample #15, Ted was out in the warehouse, collating sets of date books. He was working automatically, not paying much attention to what he was doing. He was half-listening to his son, Alex, giving instructions to two salesmen in the showroom. Alex was telling the salesmen how to sell cloth products. At the moment of the beep, Ted was visualizing a cloth bag. The bag was a little canvas travel bag, dark blue, with beige-colored ends and beige handles. The Imaged bag was somewhat rounded in shape, and was not too well stuffed, unlike bags on display in the showroom, which in reality were well stuffed to simulate how they will
look when in use. Ted stated that the Imaged bag was not like any bag he had ever seen.

Following right on the heels of the Image of the bag, Ted's Image changed to one of Alex, wearing a beige-colored turtleneck sweater with black accents (the same sweater Alex was, in fact, wearing that day). Alex was "suspended" on the left in the Image, and Ted was not aware of anything below Alex's waist. Ted stated that the Image of Alex lasted longer than the fleeting Image of the canvas bag.

Feelings

Ted reported experiencing Feelings in 12 (40%) of his samples. The majority of these were Somatically-Oriented Feelings, emotionally charged Feelings that manifested themselves as "physical" sensations, most of which were perceived to be in specific locations in Ted's body. Ted also reported two Thought/Feelings, possessing both an emotional and a cognitive quality. Ted's Feelings were perceived as sometimes pleasant, sometimes unpleasant experiences.

Somatically-Oriented Feelings

In 10 (83%) of the 12 Feelings samples, Ted reported Somatically-Oriented Feelings. The most predominant Feeling was anger, experienced in 5 (42%) of Ted's 12 Feelings samples. He also experienced Feelings of disappointment, pleasure, annoyance, anxiety, concern, gladness, tension,
and calm wishfulness. Ted's Feelings were located most often in his chest, but also manifested themselves in his head and his upper body.

Sample #16 provided an example of a Somatically-Oriented Feeling. Ted's wife had just commented on how neatly he was doing the collating of the date books, and how she had trouble doing the job in as orderly a fashion. As the beep sounded, Ted was looking down at his neat piles of little books. At the moment of the beep, he was aware of a fleeting good Feeling, which he described as a minute little "rush" in his chest area. Ted described it as a "wh-o-o-sh," as though his blood vessels had dilated a little, allowing the blood to rush faster.

In Sample #35, Ted was at the Royal Casino looking for the plumber and foreman of the construction of his new store (who had not gone to the job site that day, as they should have). He was experiencing a Feeling of anger at the moment of the beep. This was manifested as a constricted tightening in his chest and head. He described the sensation in his head as similar to that of squinting, or of furrowing his brow—neither of which he was doing in reality. The angry Feeling was perceived as being outside his forehead; however, the tightening of his chest was experienced as being inside his body. Ted likened this to something pulling from the center of his outer chest to the innermost portion of his body.
Also at the moment of the beep, Ted had an Image of the plumber and the foreman. The Imaged plumber was seen from the front, appearing in the Image as he does in reality—a "little guy" with gray bushy hair and a beard. The Imaged foreman was seen from the shoulders up, and even though the details were indistinct, Ted nevertheless "knew" it was the foreman.

In Sample #5, Ted was sitting at his desk at work, watching the bookkeeper enter cash receipts data into the computer. She had forgotten to press "SAVE" and thus the computer would not accept the data she was entering (which Ted said he knew would happen, but the bookkeeper did not). He was staring at the computer screen and planning to say to the other bookkeeper—who also was learning the new software—"Watch what happens!" when the beep sounded. At the moment of the beep, Ted was aware in Unsymbolized Thinking of the "Watch what happens!" thought, even though he was not saying the words in inner speech, and the words themselves were not part of his inner experience. Simultaneously, Ted had the sense of being "a little fiendish," like a practical joker pulling off a trick. He said he was aware a Feeling of fiendish pleasure in watching the employee (who he said was devoted and loyal but often has a know-it-all attitude) make a mistake he knew could easily be rectified. Ted described his Feeling as a physical "rush," a Feeling of elation. It was perceived to
be a pleasant Feeling located in his whole body. He stated that it was as though he were smiling inside, even though he was not, in reality, smiling.

Thought/Feelings

Thought/Feelings—possessing both an emotional and a cognitive component—were experienced in 2 (17%) of Ted's Feelings samples. Sample #11 offered an example. Ted was eating lunch at work. The intercom in the lunchroom had just buzzed, and he was saying something to someone about the buzzer sounding like the ring of the telephone when he was signalled by the beeper. Ted was chewing his food when the beeper sounded. At the moment of the beep, he had a Bodily Awareness that his "taste buds were happy." He described this as a good experience, "salivating and chomping."

Simultaneously he had a Thought/Feeling of worry that he should keep an eye on the slice of pizza he was heating in the microwave, so that it did not overcook. Ted described this as a concerned Feeling, which he described metaphorically as being "like a squinting of the forehead and a narrowing of the eyelids."

Unsymbolized Thinking

Ted reported Unsymbolized Thinking, in which he understood the content of a thought in the absence of Images, Feelings, words, or other symbols, in 6 (20%) of his
30 samples. In Sample #24, for example, he was watching "Jake and the Fat Man" on television. At the moment of the beep, he was picturing in a color Image the bulldog he had seen on the screen earlier, and observing in Unsymbolized Thinking how much the dog looked like its owner. Ted could not say how this thought presented itself in his inner experience. He reported that it was as though he were saying to himself, "So often dogs and owners look alike," but this thought was not perceived to be in words.

In Sample #17, Ted was packing boxes of books into cartons. At the moment of the beep, he had an Image of the remaining inventory in a box on the floor of the warehouse where he was working. His Image was of little blue boxes packed helter-skelter inside a corrugated carton. (In reality, the carton containing the remaining inventory was neatly packed with rows of little blue boxes.) Simultaneously, Ted was aware of wondering how many boxes of books he had left. The wondering was not in words, and was not as though he were talking to himself, or as though another person were talking to him. The thought was "just there" in his awareness. Also simultaneously, he experienced another, fleeting kind of wondering about lunch because he was hungry. This being hungry was not the feeling of pangs of hunger, but rather an Unsymbolized knowing that he was hungry and ready for lunch.
Inner Speech

Ted experienced Inner Speech in 2 (7%) of his 30 samples. An example was found in Sample #18. He had just made a count of the remaining inventory he was packing, and was thinking about the total number of sets of books left—175. As the beeper sounded, Ted was wondering how many sets he should try to sell to a customer who had ordered earlier, then canceled his order. At the moment of the beep, the customer's name, Williams, was experienced in Unsymbolized Thinking to be "just there," not heard or spoken by Ted (or anyone else) in his inner experience, but nonetheless clearly perceived to be present.

Also at the moment of the beep, Ted was saying to himself in Inner Speech, "I wonder how many of these sets of books I should make him take." Although he was confident he was talking to himself in his own voice, he did not remember the exact words. The talking was perceived by Ted to be in his brain, his head, rather than in his mouth. As he was experiencing this Inner Speech, he was wondering in Unsymbolized Thinking how many sets of books he would be satisfied with Williams buying, in view of the fact that he [Ted] still needed to keep some books.

Bodily Awareness

Bodily Awareness of his current physical state was reported in 2 (7%) of Ted's 30 samples. In Sample #19, for
example, he was eating lunch at a favorite restaurant. At the moment of the beep, he was thinking about his new business, and how badly he wanted to succeed quickly. As the beep sounded, Ted had just started to eat his chicken teriyaki, and at the moment of the beep, he was aware that his mouth was "bursting with good tastes." He was aware of the good, strong taste of the teriyaki, and his mouth felt as if his glands were salivating, which they were in reality.

Summary

Ted's inner experience in his reported samples contained several salient characteristics, experienced multiply in four samples. Images were the most prevalent aspect of Ted's inner experience, reported in 67% of his samples. Most of Ted's Images were in realistic color, and were perceived to be clear representations. In three of his samples, Ted was aware of Images that changed into different Images, all perceived at the moment of the beep.

Feelings occurred in 40% of Ted's samples. His Feelings included anger, pleasure, anxiety, disappointment, annoyance, concern, tension, and calm wishfulness. Most (83%) of Ted's Feelings were Somatically-Oriented Feelings having a "physical" manifestation in specific areas of his body. However, two of his Feelings samples were
Thought/Feelings, which had a cognitive as well as an emotional component.

Ted also experienced Unsymbolized Thinking in 20% of his samples, in which he understood the content of a thought without it being conveyed by means of symbols. He reported Inner Speech, a thought perceived to be spoken in his own voice, with his own inflection and rate of speaking, even though he did not actually utter the words, in two samples. Ted experienced a Bodily Awareness of his current physiological state in two samples.
Jessica (not her real name) was a 25-year-old college senior. She stated that she was not bulimic, nor was she suffering from any mental disorder. Jessica was married, with no children. She was a full-time student, and was not employed at the time of sampling.

Jessica used the beeper on five days over a two-week period, and we discussed 21 samples in detail. We will provide an overview of Jessica's inner experience, followed by a complete description of the salient characteristics of her sampled moments.

The most frequently experienced characteristic of Jessica's inner experience was Unsymbolized Thinking, including Wordless Inner Speech and Wordless Inner Hearing; Unsymbolized Thinking occurred in the majority (81%) of her reported samples. She also reported Feelings in 29% of the samples, two-thirds of which were Somatically-Oriented Feelings that were emotional experiences with "physical" manifestations. Jessica described Images in three samples, and Inner Hearing in one sample.

Jessica's inner experience could be described as being rather straightforward, often involving only one
characteristic, or at most incorporating no more than two. None of Jessica's inner events occurred multiply.

Unsymbolized Thinking

Jessica reported Unsymbolized Thinking, where the content of the thought was not conveyed by way of Images, words, Feelings, or other symbols, in 17 (81%) of her 21 samples. An example was found in Sample #5. Jessica was tutoring a group of football players, who were teasing her about wearing the beeper. They were telling her that they think about sex all the time, and that was what they would report at the moment of the beep. As the beeper sounded, Jessica was thinking that she herself hadn't had any sexual thoughts. She was not sure how this thought was experienced, but she knew it was not in words. In reality, Jessica was embarrassed and was hot in the face, but she was not aware of this in her inner experience.

Another example was provided in Sample #8. Jessica was watching "Funniest Home Videos" on television. When the beeper signalled, she was speculating about how much time it would take to shoot good videos of children. At the moment of the beep, Jessica was aware of wondering how she was going to fit children into her life, how would she ever have time to fit them into her busy schedule. Jessica was aware that although she was watching the show, she had also withdrawn a little. She was not aware of any feelings in
her inner experience, and could not describe how the thoughts were perceived.

In another example of Unsymbolized Thinking, Sample #19, Jessica was discussing dysfunctional families with her friend, Doug. Jessica was saying aloud, "Why don't we hear about the kids who are successful and survive in these dysfunctional families?" when the beeper sounded. The beep sounded at the end of the question. Jessica stated that at the time, she had "shut Doug out." There was a pause in the conversation and she was focused on pondering the question when signalled by the beeper. Although in reality, Jessica had been talking, in her inner experience, she was "listening" to the question she had posed, but it was not Inner Hearing. She was aware that was what she was experiencing at the moment of the beep, but did not know how this was experienced. For Jessica, the pondering of why one doesn't hear about successful survivors of dysfunctional families was perceived to be "very involved."

Sample #11 offered an example that, although it was perceived to be somehow verbal, nevertheless was not in words and was not perceived as being spoken, but rather was Unsymbolized Thinking. Jessica was at home, watching the movie "Lethal Weapon" on her VCR. In the scene, Mel Gibson wore yellow transparent safety glasses. Before the beep sounded, Jessica had thought that even in those glasses, the actor's eyes were gorgeous. At the moment of the beep, the
thought that, if expressed in words, would be, "How blue Mel's eyes are" was in Jessica's awareness "like a whisper" in her head, as if the idea were there, but not in the form of words. As Jessica described the experience, it was not her voice whispering, and it was not as if someone were speaking, even though it was basically experienced as verbal. The whole thought of how attractive the actor's eyes were was perceived to be in her awareness all at once, rather than unfolding.

Another example of a verbal-type Unsymbolized Thinking was illustrated in Sample #24. Jessica was watching the reunification of Germany on the television news. The newscasters had just posed the proposition that "In 1945 WWII stopped, and..." when the beeper signalled. At the moment of the beep, Jessica was aware of completing the sentence "...and the Cold War began." Although the thought was not in words, and she had no sense of producing the thought, Jessica perceived it to be a verbal thought, located in the middle of her head. She reported that the thought flowed like a sentence, but it was not experienced as any type of Inner Speech, but rather was as if it were directed at the television newscaster.

In 2 (18%) of Jessica's Unsymbolized Thinking Samples, she reported a phenomenon we call Wordless Inner Speech, in which the thought was perceived to be verbal even though not in words, as were the samples in the preceding two
paragraphs. However, in these samples, the thought was experienced as being more like speaking than just knowing its content. In both samples, the experience was described as being like "Jessica talking to Jessica."

Sample #18 provided an example of Wordless Inner Speech. Jessica was reading in her psychology textbook about the history of the first spinal-cord studies. At the moment of the beep, she was aware of thinking that 1822 was not that long ago. Jessica stated that the thought was not in words, but was perceived as a comment "by Jessica to Jessica," who was currently studying the history of psychology. For Jessica, it was perceived as a quiet voice, a quiet comment spoken in the back of her head. She stated that it was a nonhearing verbal experience, which she likened to the comments, directions, and so forth found in parentheses in the script of a play one is reading. The voice in Jessica's inner experience was perceived to be "intellectual," although it was without inflection.

Sample #25 offered the only example of a similar phenomenon, Wordless Inner Hearing, where the thought was not in words per se, but was perceived to have been heard. Jessica was at home figuring out her income taxes. At the moment of the beep, she was aware that she had just said (to Jessica), "Where did all that money go?" For her, the experience was as if she were listening to what she was telling herself. Although this thought was not in words,
Jessica described it as a verbal thought, located in the top of her head, on the right side at the back. (Jessica stated that is the location from which the voices in her inner experience come.) The inflection in the voice in Jessica's awareness—Jessica's voice—expressed amazement that the money was gone. Also at the moment of the beep, Jessica was aware that she felt sick, which she described as a feeling of queasiness in the pit of her stomach. As she described it, the focus of her inner experience was the questioning of where the money had gone, the inner voice talking, and the Feeling of being sick to her stomach, both experienced at the same moment.

Feelings

Jessica reported experiencing Feelings in 6 (29%) of her 21 samples. All Jessica's Feelings were perceived to be unpleasant ones. Four of her Feelings were Somatically-Oriented Feelings, in that there was a "physical" aspect—experienced in her chest, upper body, and stomach—to the emotional experience; the other two Feelings were not perceived to be manifested somatically, and Jessica could not pinpoint their location. Her Somatically-Oriented Feelings included disappointment, dread, fear, and loneliness; other Feelings were irritation and jealousy.

An example of a Somatically-Oriented Feeling was illustrated in Sample #7. Jessica was reading the comic
strip "Family Circus." In the cartoon, an old woman was looking at children's toys in the corner. Jessica was looking at the drawing of the woman and musing over how quiet it would be when the kids grew up. At the moment of the beep, Jessica was aware of a Feeling that she described as a lonely Feeling, an emptiness. It was felt in her chest and her upper body, deep inside her whole torso. As she described it, Jessica's Feeling had two components: the emptiness was "more in the picture" than in herself, whereas the loneliness was a settling feeling that was "going down" deep in her body.

Another example was provided in Sample #3. Jessica was involved in a conversation with several of the football players she was tutoring. She was listening to them and "tracking" their conversation. As the beeper sounded, Jessica was describing the time her car had skidded and she wound up driving backwards on the highway. At the moment of the beep, Jessica was reexperiencing the Feeling of fear she had felt at the time of being out of control. She reported that the Feeling was in her chest, although it was not the "frozen" Feeling she had at the time in reality.

In Sample #28, Jessica was watching "Rescue 911" on television. She was intently watching the program, on which a runaway train had just hit a car carrying two people. At the moment of the beep, she was aware of focusing on a Feeling of dread, felt as a sinking sensation in the pit of
her stomach. Jessica reported that it was not an intense Feeling, but not merely a minimal one either. She stated that she was "very aware" of this Feeling of dread, she was really concentrating on it. Also at the moment of the beep, Jessica was aware of thinking in Unsymbolized Thinking a thought that if expressed in words would be, "How could they live?" The thought was perceived to be "just there" in her awareness.

In Sample #2, Jessica's Feeling was not manifested somatically. She was talking to a fellow tutor and at the moment of the beep, the other woman was discussing getting a scholarship. Jessica wasn't really listening to her because she was thinking that she, Jessica, should be awarded a scholarship. At the moment of the beep, she was aware of thinking in Unsymbolized Thinking that she had better grades than the other tutor who had received a scholarship. Jessica also was aware of a Feeling of jealousy, experienced as a slight feeling of disappointment.

Images

Jessica reported Images, ranging from clear to very clear Images, in 3 (14%) of her 21 samples. Sample #4 offered an example. Jessica was tutoring. As the beep sounded, she was wondering in Wordless Inner Speech whether, if she were not married, she would date Joe, the student she was tutoring, whom she described as a "cute football
player." Also at the moment of the beep, Jessica experienced an Image in which she "saw" herself and Joe as a couple, with the Imaged Jessica on the right, and Joe on the left. For Jessica, it was as if the Imaged couple were looking at her and she were looking at them at the same time. Jessica stated that her Image had no edges or background, and had no movement.

Sample #23 provided another example. Jessica was a passenger in the car her husband, Jack, was driving. As the beeper signalled, she was saying to Jack, "This suit would be perfect for the conference." At the moment of the beep, Jessica was aware of being totally focused on an Image of herself dressed in the suit. In the Image, she saw herself with her hair done in her usual style, wearing a white blouse underneath the dark-blue, white-pinstriped suit jacket. According to Jessica, the Imaged jacket had a sailor-type design and was not "stuffy." The Imaged skirt was narrow, or "pegged." The coloring and style of the suit were congruous with the suit's appearance in reality.

The Imaged Jessica was standing, just starting to advance to the front of a conference room. The room in the Image was not distinct but rather was perceived to be in the background. The Image was seen from the perspective of Jessica seeing herself as if she were located in the front of the conference room, watching herself standing and advancing to the front of the room.
Jessica's Image was perceived to be like a snapshot, yet it had no edges. It was experienced as located in the middle of her head. The Image was in color, and the Imaged Jessica seemed a little bigger than the background. Jessica perceived the Image to be very clear, in spite of the indistinct conference room in the background. She stated that it was sharper, and less hazy or fuzzy than her other Images.

In Sample #16, Jessica was in a psychology class, listening to the professor lecture on Ebbinghaus and how he had studied memory. As the beeper sounded, Jessica was thinking about Ebbinghaus. Jessica speculated that she had "tuned out" the professor and was concentrating on her own knowledge of Ebbinghaus when signalled by the beep. At the moment of the beep, she was aware of the word "memory" in black letters on a white background in her inner experience—she did not know if the white background was paper. As she described it, the word "memory" was in lower case print, is it would be in a textbook.

Inner Hearing

Jessica experienced Inner Hearing in only one of her samples. She was outlining her textbook as the beeper signalled. She was thinking that what she had written in her lecture notes and the material in the textbook did not match. Jessica reported that at the moment of the beep, she
was thinking, "I have to ask my professor about the discrepancy." The beep came at the end of the sentence. According to Jessica, she perceived the whole sentence to be in those exact words. She was hearing the words spoken as if in a conversation. For Jessica, the experience was as if she, Jessica, were hearing herself talking to Jessica. However, she had no sense of producing the words herself; instead, the words were heard in her awareness.

Also at the moment of the beep, Jessica was aware of a Feeling of irritation; she could not pinpoint a location for her Feeling. She stated that it was "just there." As perceived by Jessica, the Feeling of irritation was not as intense as it would have been were she focusing on it.

Summary

Jessica's inner experience contained several salient characteristics. None of these characteristics were experienced multiply in her reported samples.

The most frequently experienced characteristic was Unsymbolized Thinking, reported in 81% of her samples. Jessica's Unsymbolized Thinking, in which she reported understanding the meaning of a thought in the absence of words, Images, or other symbols, included two instances of Wordless Inner Speech and one of Wordless Inner Hearing. These were not perceived to be in words per se, but were understood to be spoken or heard nonetheless.
Jessica also experienced Feelings, which occurred in 29% of her samples. All of her Feelings were perceived as unpleasant ones. Four of her Feelings, dread, disappointment, fear, and a lonely, empty Feeling, were Somatically-Oriented Feelings, in which the emotion was manifested as a "physical" experience. Jessica also reported Feelings of jealousy and of irritation; these Feelings had no bodily location.

Images occurred in three of Jessica's samples. They ranged from clear to very clear Images. She reported Inner Hearing in one sample.
Bibliography


