Sampling inner experience in individuals with anxiety

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SAMPLING INNER EXPERIENCE

IN INDIVIDUALS WITH

ANXIETY

by

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ABSTRACT

Sampling Inner Experience in Individuals with Anxiety

by

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The current study examines the inner experience of five individuals who report symptoms of anxiety and three control individuals. Descriptive Experience Sampling (DES) is the method that was used to examine inner (subjective) experience. Idiographic result chapters have been written for all eight of the participants involved in this study. These results include a description of an anxious participant who feels (emotionally) her way through life, another who is nearly always experiencing an acute awareness of sensory aspects of his environment or nothing at all, and another who solves problems through “rapid fire” reverse-order mental images. These results are followed by between participant nomothetic comparisons. Among the results it was found that anxious individuals are more likely than controls to be dominated by the experience of sensory awareness and experience a higher frequency of unsymbolized thought. The current study supports many of the findings of two previous DES studies on anxiety, both of which are discussed.
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CHAPTER 1

INTRODUCTION

Anxiety

In general terms, anxiety is an affective state with both physiological and subjective symptoms. The physiological symptoms of anxiety, caused by sympathetic nervous system activation, typically involve one or more of the following: sweating, flushing of the skin, difficulty breathing, increase in heart-rate, twitches, aches and/or pains, and tremor. The subjective symptoms include, but are not limited to, worry, apprehension, inability to concentrate, tension, restlessness, and a perception of fear, panic, or dread (Mennin, Heimberg, & Holt, 2000). A simpler definition of anxiety can be found in a report by the Surgeon General (2002), which defined anxiety as a pathological counterpart to common fear that may manifest itself as a disturbance of normal mood as well as thought, behavior, and physiology.

According to the National Institute of Mental Health (NIMH), the point prevalence of anxiety disorders for Americans is nearly nine percent (over 23 million) (Anxiety Disorders Association of America, 2001). This figure includes only those individuals who have been diagnosed as having a significant amount of impairment due either to the number or to the severity of anxiety symptoms. There are also many
additional individuals who suffer from noticeable distress but who are either non-diagnosed or do not meet the criteria for diagnosis. In the report of the Surgeon General (2002), a one-year prevalence of all anxiety disorders among adults in the United States is over 16 percent. Though both of the prevalence rates listed above were for the United States, research in ten different geographic locations, including New Zealand and countries in Europe, Central America, Asia, and the Middle East, indicates that worldwide prevalence rates are similar for a variety of anxiety disorders (Weissman, Bland, Canino, Faravelli, Greenwald, Hwu, et al., 1997).

Prevalence rates can be somewhat skewed by difficulties in differential diagnosis (Ballinger, Davidson, Lecrubier, Nutt, Borkovec, Rickels, et al., 2001) and issues of comorbidity (Greenberg, Sistisky, Kessler, Finkelstein, Berndt, Davidson, et al., 1999). According to Greenberg and his colleagues, 15.7 million Americans between the ages of 15 and 54 suffer from anxiety disorders each year. Another 11.7 million suffer from both one or more anxiety disorders and at least one other psychiatric disorder (Greenberg et al., 1999).

Though anxiety disorders differ in their average age of onset and the degree to which they are accompanied by secondary medical conditions (i.e. irritable bowel syndrome and headaches), they can be a financial drain for families, insurance organizations, mental health agencies, and businesses (Ballenger et al., 2001). Estimates of these costs ranged from just over 43 billion dollars a year (Greenberg et al., 1999) to just under 47 billion dollars a year (Mennin et al., 2000) for the 1990 calendar year. The distribution of costs caused by anxiety disorders (in 1990) was as follows: 54% direct
non-psychiatric medical treatments, 31% direct psychiatric treatment, 10% workplace costs, 3% mortality costs, and 2% pharmaceutical costs (Greenberg et al., 1999).

Over the past three decades a great deal of research has focused on the causes of anxiety disorders. A meta analysis of this research indicates that the development of an anxiety disorder can involve acute stressors, neurochemical and structural abnormalities, underlying conflict, learning, and cognitive processes (Surgeon General, 2002). This is such a broad description of the etiological mechanism that any explanation would surely fit into one of the etiological pathways.

The cognitive components of anxiety have been studied for approximately 30 years and have focused on different types of anxiety (Beck, Laude, & Bohnert, 1974; Szabo & Lovibond, 2002). Beck et al’s case studies of 32 individuals determined to have anxiety neurosis indicated that the severity of anxiety is related to the likelihood of danger and the anticipated severity of the dangerous event. When asked to report cognitions related to the anxiety, all individuals indicated danger, and 22 of 24 participants who were questioned reported seeing mental images of the traumatic event (Beck et al., 1974).

The likelihood of danger and anticipated severity were not found to be factors that were related to severity of anxiety in a study conducted by Szabo and Lovibond. Fifty-seven participants were selected to participate in the study because they had varying scores on three worry-proneness scales. After journaling for seven days, the participants’ journals were content-analyzed. The findings of this study indicated that over half of “worry episodes” were due to difficulties in selecting solutions and solving problems efficiently (Szabo & Lovibond, 2002).
In his work on self-focused attention, Ingram concluded that individuals with anxiety disorders display a significantly higher level of self-focus when compared to controls. Because this same degree of self-focus has been investigated for other disorders, he referred to the problem as “psychopathological attention.” There are two problems with his findings however. The first is that little work has been done on self-focused attention and anxiety. The second is that Ingram was generalizing self-focus in depression research to anxiety because they are highly comorbid (Ingram, 1990).

Subjective Experience

If Ingram’s findings are correct about the increase in self-focused attention in anxious individuals, it may prove useful to examine the experiences one can become aware of when focused on internal events. Subjective experience can be defined as the sensations, perceptions, thoughts, emotions, and so on, that make up the focus of one’s “inner life.” Each of these types of experience could be further broken down. For example, sensation includes each of the five sensory modalities. Other components of subjective experience are more difficult to examine. For example, what kind of inner experiences constitute “thought?” Is internal “self talk” thought? Is seeing an internal image a thought?

Some researchers have examined the issue of subjective experience in order to determine general types of experience that may be shared by most individuals. Klinger and Cox (1987), for example, used a method known as thought sampling (which will be discussed in more detail later in this work) to understand the types of experiences individuals have when “daydreaming.” They sampled the “consciousness” of 29
different participants 1,425 times. Through exploratory factor analysis, they determined there were a number of distinguishable experiences shared by individuals in the study. These experiences include: attention to visual details; attention to and recall of external stimulation, the specificity (or lack thereof) and control of attention; attention to auditory details; the degree of disorientation and disconnectedness of experience; and time orientation. The researchers further determined that “internal monologues” were present in a number of samples, independently of the types of experience participants were having (Klinger & Cox, 1987).

A number of cognitive factors related to perception and memory were examined in a reality-monitoring study by Johnson and Raye (1981). These authors proposed a model of the difference between internal and external memory that implies that subjective experience is a combination of perceptual, memory, and other cognitive components that are composed of temporal and spatial contextual information, semantic detail, and sensory information. Although the authors described subjective experiences such as internally re-experiencing stimuli that were once external (e.g. internally seeing something that was once seen as an external visual stimulus), their research was very specific to memory and does not explicate different types of subjective experience.

Hedges, Krantz, Contrada, & Rozanski (1990) used diaries to monitor mood, activity, and physiological functioning. Participants in this study carried pocket-sized diaries to track their daily activities and mood associated with those activities. The researchers also kept observations and ratings of the participants’ activities and what their mood was perceived to be, though the observers’ mood-tracking data was not analyzed in the study. It seems likely that the observer ratings of participant mood...
would be inaccurate because understanding the complexities of another's experience without some form of active dialog between the observer and the participant would be difficult at best.

Davidson, Robins, & Johnson (1983) pointed out that cognitive-behavioral theorists have oversimplified cognition. Thought is not covert talking, but instead it is the verbalization of complex inner processes including both words and other mental experiences.

Verbal communication can sometimes be inaccurate and misleading (try to explain what it feels like to be in love, for an example). Further complicating the verbalization of internal events, the focus of a participant may not be directed toward inner experience. Singer (1975) wrote that external stimuli may require enough attention that subjective experience can occur outside of most people's awareness. In other words, individuals may be focused so much on what is going on around them that internal processes (such as thought content) may go essentially unnoticed. A study by Cameron and Giuntoli (1972) examined "consciousness in the classroom." The researchers found that the awareness of 68 students was focused on relevant external stimuli only approximately 50% of the time, with the remainder of their attention being focused on internal thoughts. These subjective cognitions included thinking generally about the course, college, the speaker (although not what the speaker was saying or doing), how much time until class would be over, sex, religion, finances, and death and dying. Though this finding seems to contradict Singer's (1975) assessment that external stimuli may occupy most of one's attentional focus, it should be noted that Singer was
more interested in activities that may require a great deal of external focus, such as mountain climbing and driving.

In 1978 Klinger also examined the inner experience of college students during lecture. He concluded that their thought content was specific, detailed, visual (more than the other sensory modalities), realistic, in the present, related to the immediate situation, and recallable within a few seconds of the experience. He also reported that approximately 20% of thought samples were "somewhat strange or distorted." The terms "strange" and "distorted" may undermine the characteristics "realistic" and "related to the immediate situation" listed by Klinger, though it is unclear what was meant by "somewhat strange or distorted." It could be that unusual and unclear experiences reported by participants are simply not related to the situation and may, with further investigation, be quite understandable and not so "strange."

When subjective experience is examined by researchers, as a primary focus of a study or simply in passing, it appears that the most common aspects of experience considered involve emotion and thought content. Some researchers take a step further and attempt to determine such aspects of experience as the characteristics of mental imagery. One of the most complete listings of subjective experience was compiled by Hurlburt (1999). It contains both commonly examined aspects of inner experience as well as many that most researchers would probably agree exist but have never studied. Hurlburt's list of potential experiences was compiled after sampling the inner experience of various individuals using the descriptive experience sampling method (which will be discussed at length later in this work). The sixteen listed categories were not meant to encompass all potential inner experiences, but were found to be common among
participants. Included in this listing are the experience of speaking in one’s own voice internally, hearing internally, seeing an internal image, thinking without symbols, emotion, and focused awareness of aspects in external sensory stimuli. These categories represent the rich variety of human inner experience and stand in stark contrast to the poverty of experiences examined by other researchers. By way of review, the researchers discussed earlier in this section have only examined attention to perceptual stimuli, mood, and inner dialogue. Instead of examining only these few types of inner experience, Hurlurt’s list provides a glimpse at the depth of human subjective experience.

Methodological Issues in the Study of Subjective Experience

Most Introductory, History, and Cognitive Psychology textbooks pay homage to the early introspection work of Wundt in Leipzig, Germany. However, criticism of introspective methodology began immediately and can still be seen in modern literature. Two contemporary introspectionist critics, Nisbett and Wilson (1977), critically addressed modern introspection literature. Though they strongly argued against the use of introspection, their criticisms of introspective methodology can be examined in terms of methodological modifications that should be made when conducting examinations into subjective experience. First, they held that even though the literature has demonstrated difficulties in self-awareness of perceptual and memory processes, it does not mean that “higher order processes” are always going to be inaccessible to conscious awareness, though they believed it was not likely. Second, they held that it is not likely that individuals are able to answer questions about the reasons for their behavior. In the
unlikely event that somehow an individual can accurately answer such questions as well as questions about the processes involved in making evaluations, then individuals may have some awareness of certain cognitive processes. In other words, if individuals can answer questions about evaluations made prior to behavior, it is possible that they may have access to some aspects of their inner experience. Third, they held that reports of higher mental processes may sometimes inadvertently be correct. Nisbett and Wilson argued that when an individual is correct about higher mental process, it may be due to a priori theories of experience (e.g. when I behave in this manner, it is because of that). Nisbett and Wilson conducted a series of experiments to demonstrate that in many instances individuals have a priori theories about the causes of their own behavior and may not be accessing their awareness to determine more realistic causes. So, Nisbett and Wilson argue that individuals may respond to questions of inner processes with “canned” a priori responses habitually. It is this author’s contention that individuals can be trained to avoid giving a priori responses by focusing on their own experience.

In this same work, Nisbett and Wilson (1977) allowed that there might be “…ecologically meaningless but theoretically interesting procedures…” (p. 246) in which people could in fact be accurate about their own inner experience. These procedures are: interrupting an internal process while it is occurring, letting participants know that they should try to “pay attention” to their cognitive processes, teaching participants the method being used, and insuring that the time that passes between the experience and discussion of the experience is minimized. Though their criticism of the ecological validity of such studies can be questioned, their methodological procedures have been used in studies of awareness and “inner experience.”
In her re-evaluation of the “introspection controversy,” Grover concluded that verbal reports can often provide significant information about emotion and subjective experience (1982). Gibbons (1983) stated that the internal focus of self attention is the best way to assure accurate self-assessment. He went on to state that self focus can be used to assess attitudes, cognitions, somatic states, and affect.

Robinson (1976) found that memory accessibility is altered by life events, indicating that experience should be recorded as soon as possible. Following factor analyses of questionnaire data and sampling data, Hurlburt and Melancon (1987) also stated that observations of experience should be immediate, and went on to add that they should be specific to one single point in time and specific to one event (as opposed to utilizing generalizations). Klinger also emphasized the immediacy of observation, stating that thought was most reliable when recorded within a few seconds of its occurrence (1978).

A number of studies examining subjective experience have been conducted in the past two decades that use procedures described by Nisbett and Wilson’s article as “theoretically interesting.” The suggestion to interrupt internal processes while they are occurring was examined by Delespaul (1992), who wrote a chapter on what kind of device could be used in sampling to interrupt experience and how best to select an experience sampling method. Though it is important to point out that the author had a pre-existing affiliation with the experience sampling method (ESM), the information he provided on a sampling device is practical. The three issues Delespaul believed were important in selecting a device were non-reactivity, flexibility, and verifiability. A sampling device that does not reactively influence participants or the environmental
should be small, inexpensive, unpredictable (emitting tones at random intervals), and have volume control for different environments. A sampling device that can be programmed was recommended so its use can be flexible enough to permit a variety of differing studies. Finally, the time that a tone was emitted and the time when the participant’s experience was recorded should be readily accessible information to the researcher (implying the sampling device should have a chronometer).

Davis and Johnson (1983) examined the consciousness of 107 introverted and extroverted undergraduates by interrupting their experiences and giving some indication that they should attend to certain aspects of their experience. Participants carried Motorola pagers that were activated remotely approximately 20 times a day for two days. Participants recorded their thoughts, behavior, the time, what senses were active, and any relevant time orientation each time the pager sounded. Though participant’s activities were interrupted, which was one of the suggestions made by Nisbett and Wilson, it does not appear that participants were trained in the procedure or told to focus on their cognitive processes. There was also no mention of the time elapsed between being paged and discussing the randomly sampled moments (though 2 days was implied). Participants were recording aspects of their experience immediately after the pager sounded however.

Nelson, Lipinski, and Boykin (1978) examined the issues of training self-reporters as well as reactivity in self-monitoring tasks, the first issue being an explicit suggestion of Nisbett and Wilson. Though the ten participants were involved in monitoring their own external behavior and not internal processes, having a readily accessible recording device was found to increase the accuracy of self-recording.
Furthermore, they found that unobtrusive devices used in the study did not seem to produce reactivity. It must be pointed out that the sample size used in this study was quite small, but when the results are coupled with findings from studies of subjective experience they seem to add credence to the methods of immediate recording and unobtrusive sampling devices.

In summary, there are a number of issues that need to be considered when attempting to explore the subjective experience of individuals. Participants should be trained in the procedure that is used to gain access to subjective experience. Though a device is not necessary, it can be helpful in the process if the device is unpredictable and unobtrusive. There should be little delay between the time of the experience to be examined and its examination. Finally, whichever method is used to examine an experience should interrupt the process of the experience so that it is as clear as possible.

Methods Used in Sampling Subjective Experience

At least seven methods have been used over the past three decades to examine subjective experience. Each of the methods examines one or more aspects of subjective experience, and all of them have come to incorporate methodological suggestions that have been made for examining subjective experience. The first five methods to be examined are methods that have either apparently been abandoned or have evolved into more complex sampling methodologies. These will be followed by more enduring (though potentially still evolving) methodologies.

The earliest modern sampling methodology used to understand subjective experience appeared in an article by Locke and Jensen in 1974. The researchers referred
to the procedure as "Thought Sampling"; appropriately enough the goal of this method was to elucidate the cognitions of individuals who were being sampled. Similar (though more sophisticated) research was later referred to as "cognition sampling," "cognitive sampling," and even "thought sampling." In Locke and Jensen's (1974) thought sampling study, 82 participants in four gym classes were exposed to a freon-activated horn on random days, at pre-determined times, over a 15 week period. When the horn sounded, participants were supposed to move quickly to clipboards that had pencils and response forms to fill out the thoughts that were present just before the horn was activated. Participants also recorded the level of concentration to the task they were performing prior to the horn. The data were then examined to determine how attentive the participants were to instruction in a variety of athletic activities such as tumbling and badminton. The only significant finding reported in this study was that males were more attentive to the teacher's instructions than were females.

The second modern sampling method was reported four years later by Hurlburt and Sipprelle (1978). This method, though similar to the method used by Locke and Jensen, is a much more sophisticated method for examining cognitions of participants. Hurlburt and Sipprelle referred to the method as "cognition sampling," which had the goal of obtaining samples of thought content. The researchers had chosen their methodology in order to obtain estimates of the cognitive frequencies of thought contents in order to understand the reasons for the patient's anxiety attacks. The participant was given a portable signal generator small enough to fit in a shirt-pocket. A tone emitted by the signal generator through an earphone, at random intervals averaging 45 minutes, interrupted the participant's behavior to notify him to write down the
thought(s) he was having just prior to the onset of the tone. Analysis of the thoughts showed that many expressed irritation or anger toward his children. This characterization allowed the participant insight into a potential contributing causal influence on his behavior of panic attacks, and his anxiety diminished dramatically.

In 1979 Hurlburt published an article about the potential uses of cognition sampling in behavior analysis. Five male and five female participants carried the same shirt-pocket sized device as in his 1978 work and a 3” X 5” spiral notebook for recording their cognitions when a tone was randomly emitted at the average interval of 30 minutes. Participants were asked to carry the signal generator from waking to bedtime on three consecutive days, taking note and recording their cognitions, what they were doing, and the time of day for each tone. The final data included 778 reported thoughts that were then rated by the researcher on six rating scales. Among other observations, Hurlburt showed that there was one male participant who reported having as many as five thoughts at a given moment. These thoughts, though all present simultaneously, were not necessarily related to each other. Hurlburt also observed that individuals who partook in the study were not good estimators of the relative frequency of different types of thoughts, even if they themselves defined the “types” of thoughts to be considered.

The third modern method of sampling subjective experience is closely related to Hurlburt and Sipprelle’s cognition sampling Method. In 1980, Hurlburt compared his “thought sampling” technique to retrospective self-report methods being used by other researchers to define idiographic descriptions of “mental life.” The tone emitted from the “random-interval generator” was still 400 Hz but was now sounding on average
every 25 minutes. When sampling-based thought-content categories were correlated to apparently similar items from Singer's Imaginal Processes Inventory (IFI), it was demonstrated that the sampling category frequencies correlated between -.41 and +.40 with items on the retrospective measure (IFI). This indicated that retrospective reports are not necessarily accurate descriptions of actual experience.

Hurlburt, Lech, and Saltman (1984) used the same “random-interval generator” used in previously reviewed studies in two studies that sampled thought and mood of participants. In the first study, participants were asked to rate their immediate experience on 42 different scales when the sampling device sounded. The data from this study was then factor analyzed, identifying six factor structures. In the other study participants were asked to rate their experience on the 42 scales to beeps that occurred while watching the movie Annie Hall. Participants either rated their experiences immediately after the beep (while the movie paused) or at the conclusion of the movie some minutes later, thus producing a lag between the time of an experience and the reporting of that experience. The data from this study was also factor analyzed and compared to the factor structures found in the initial study. The results from these studies indicate that ratings of experience may change significantly over a relatively short period of time. One must then wonder what happens to the accuracy of ratings that occur over days, weeks, or even months.

The work of Hurlburt and his colleagues, as listed above, sets forth a methodology that not only meets the suggestions for sampling subjective experience set forth by Nisbett and Wilson (1977), but also those of other researchers as reviewed in the sections on subjective experience and the methodology of subjective experience.
The fourth modern methodology for sampling subjective experience was described by Prescott and Csikzentmihalyi (1981). The methodology the researchers used was referred to as “The Experiential Time Sampling Approach,” and was created to examine personality in ecologically valid settings while advancing personality research through new methodology. Twenty academic hospital employee participants (in 1975 and 1976) were given a “pager” device that would “randomly intervene” (sound at quasi-random intervals) over the course of a week. Participants received an average of 42 beeps between the hours of 8 a.m. and 11 p.m., and were asked to record their locations and activities as thoroughly and specifically as possible. Participants were then asked to answer seven Likert-type questions created to examine mood, activity level, motivation, and control. These responses were examined to compare location (i.e. home vs. work) and activity (i.e. work vs. leisure). From this data the researchers wrote a “profile” of the experience of professionals. Approximately two years after this research was published, one of the authors (Csikszentmihalyi) began publishing research using a similar method referred to as the Experience Sampling Method (ESM), which will be discussed below.

The fifth method used to sample subjective experience was called “consciousness sampling” and appeared in the literature three years after Prescott and Csikzentmihalyi’s Experiential Time Sampling Approach (Klinger, 1984). This consciousness-sampling study examined the relationship between test anxiety and the sampled experience of 82 students. Each of the students was given a “Pocket Programmer” device to use during a psychology examination. The device emitted a tone randomly with the average time between tones set at approximately 20 minutes. When the device sounded, students
were asked to stop working on the exam and write the last thought(s) that occurred prior to the sound of the tone, without altering the thought or expanding upon the thought. After the samples were collected for each participant, the kinds of thoughts that participants experienced were compared to measures previously taken for state anxiety to determine if specific thought content was related to anxiety. Klinger found that thoughts related to answering specific questions were negatively correlated with anxiety.

There are two methods (modern methods six and seven) that have been gaining momentum over the past 20 years and are now at the forefront of sampling subjective experience. The work done in cultivating these methods began with researchers who had worked with the sampling methods reviewed above. The methods are the Experience Sampling Method (ESM) and Descriptive Experience Sampling (DES).

Experience Sampling Method (ESM) work began in 1978 (Larson & Csikszentmihalyi, 1983). This method has its roots in the Experiential Time Sampling Approach (Prescott & Csikzentmihalyi, 1981), though the scope of ESM is much wider than the examination of personality characteristics. The goal of ESM, as set forth by its early pioneers, was to obtain both behavioral and “intrapsychic” information about the daily activity and subjective experience of individuals while minimizing the effects of reliance on memory. They suggest sampling from as many individuals as possible in order to get an idea of what experience is like for different groups of individuals; examining how time is spent, with whom it is spent, and what one’s experience is like in these different situations. The original research, done on bulimics and individuals who spend time alone, used pagers that alerted participants to fill out self-report questionnaires on their immediate experience. The pager would sound once for every
two-hour block of time at random points in that block. The questionnaires sought such information as location, activity, other individuals present, thought content, cognitive state, emotional state, motivational state, and the perception of their social situation. Each of the items on the self-report form required Likert-like responses. The researchers appear to have taken Nisbett and Wilson’s suggestions seriously and work with participants to help them understand the procedure and what is expected of them while attempting to minimize the time between experience and reporting of that experience.

ESM has been used with a variety of populations and in a variety of settings. Some of the uses have been to compare the subjective experience of individuals who are watching television, working, and taking part in leisure activities (Csikszentmihalyi & Kubey, 1981), to examine how self-awareness affects subjective experience (Csikszentmihalyi & Figurski, 1982; Franzoi & Brewer, 1984), to sample the daily lives of elderly persons (Hnatiuk, 1991), to determine how ESM can be used in organizational settings (Kubey, Larson, & Csikszentmihalyi, 1996), to examine subjective experience and aggression (Hillbrand, Waite, Miller, Spitz, & Lingswiler, 2000), and to examine the subjective experience of anxiety (Dijkman & Devries, 1987, 1991, 1992; Fave & Massimini, 1992). Experience Sampling Method research conducted with anxious participants will be discussed in the following section.

In 1986 Hormuth discussed methodological issues related to ESM while reviewing variations in the way the method had been used and what other sampling researchers had done. He pointed out the importance of the ecological validity claimed by ESM researchers and discussed areas in which ESM research could best be used; among them were personality research, naturalistically extending laboratory findings,
studying constant behavior, and studying naturally occurring events. He recommended two considerations when the ESM method is being used. The first was to use a known “call schedule” of the beeper in order to compare the latency between the beeper and filling out the self-report data. The second was either to use a smaller sample size (smaller than the standard 5,000 to 15,000 samples) or continuing to use questionnaire data to avoid difficulty in data organization and analysis.

The validity and reliability of ESM have been examined over a handful of studies and meta-analyses, and the methodology has been reviewed numerous times as well (Csikszentmihalyi & Larson, 1987; 1992). The researchers determined the method to be reliable as participants in ESM studies have had consistent affect, motivation, and cognitions over time, from one sampling period to another, with consistent changes in any of these factors across situations being easily explainable and/or understandable (face validity). The researchers also evaluated the validity of the method by comparing physiological data (i.e. measures of heart rate), and measures of mood, pleasure, and personality to the self report data. The method has also been used to compare different groups (bulimics, schizophrenics, individuals with mood disorders, etc.) for results that appear to have validity.

Reviews of ESM (Csikszentmihalyi & Larson, 1987; 1992) indicate that there are minor differences in the way the data has been sampled. The differences include the type of sampling device, which ranges from the original pager used in these studies to programmable pocket calculators and “wrist watch terminals”; and the type of self-report data used. The researchers suggested a variant of their “Experience-Sampling Form” or ESF, which takes approximately two minutes to complete and has a number of open-
ended questions (about the immediate situation) as well as the same Likert-like scales that are typically used in ESM studies.

Other researchers have discussed the issues of adapting the ESM methodology to the research question being examined (Stone, Kessler, & Haythornthwaite, 1991). These researchers suggested developing checklists specific to the research question in mind, sampling specific types of events only, summarizing the data in an appropriate way, and the handling of attrition, missing items, and other issues. While Van Meter and colleagues (Van Meter, DeVries, Kaplan, & Dijkman-Caes, 1992) suggested statistical strategies for examining the data, they also suggested that data should initially be summarized through descriptive statistics, and then analyzed with many different methods in order to look for a convergence in the results. The suggestion for using multiple methods was explained by stating that the statistical procedures used are a means and not an end.

The other method at the forefront of sampling subjective experience is the Descriptive Experience Sampling (DES) method. DES has its origins in the Thought / Cognition Sampling Methods (Hurlburt and Sipprelle, 1978; Hurlburt, 1979, 1980, 1984) that were discussed earlier in this section. The method and the focus of the method have changed a great deal because the thought and cognition sampling methods were used primarily to identify cognition content and were focused on nomothetic across-participant issues. The DES method has a much wider focus, examining every aspect of an individual's inner experience; including but not limited to the sixteen categories listed in the Descriptive Experience Sampling Manual of Terminology (Hurlburt & Heavey, 1999). The DES method is primarily idiographic, not nomothetic,
and therefore has at its core a focus on the idiosyncratic nature of the participants. The DES method tries to answer the question “What is your inner experience, and what is it like to experience things the way you do?”

In answering this question, participants are given and trained to use a random interval generator (“beeper”) similar to those used in cognition sampling (Hurlburt & Sipprelle, 1978) and Thought Sampling (Hurlburt, 1980). Participants then schedule a sampling meeting with the researcher(s) and are asked to turn on the random interval generator within 24 hours of the sampling meeting. Participants are given the option of using the beeper in a variety of their own natural settings and are asked to take note of their experience for each of six sampled moments (approximately three hours worth of using the beeper). During the expositional interview(s) participants and researchers discuss the inner experience that was occurring just prior to the moment of the beep for each of the sampled moments in order to uncover and elaborate the samples’ characteristics. Over the course of four to ten sampling meetings the participant becomes better able to describe the inner experience(s) sampled, and researchers are able to see patterns of experience that are characteristic of the participant.

Among other populations, the DES method has been used to examine the inner experience of individuals with schizophrenia (Hurlburt, 1990), learning disabilities (Schamanek, 1991), bulimia (Doucette, 1992), disturbed affect (Hurlburt, 1993), Asperger’s syndrome (Hurlburt, Happe, & Frith, 1994), as well as anxiety (Hebert, 1991; Hugelshofer, 1997; Hurlburt, 1993). Traditional methods of psychological evaluation are not likely to capture the richness of experience that can become available through DES. Though all studies conducted using the DES method to date demonstrate this
depth, some examples of the types of information that can be gained using this method are in order.

When sampling individuals with schizophrenia, Hurlburt (1990) found that the schizophrenics’ internal emotional experience was often extremely clear, even hyper-clear. Blunted affect is often said to be a characteristic of schizophrenia. Hurlburt found that it was not the experience of affect that was blunted, but its display or externalization that often appeared blunted. Blunted affect has been identified as one potential criterion for the diagnosis of schizophrenia (American Psychiatric Association, 2000), but an observer of emotional behavior would not have access to the rich inner emotional world that can be found using DES. Some of the other preliminary findings from this study include the clarity of images, the acute attention to color in images, and aspects of mental imagery that were identified as not being true to life by participants.

When sampling individuals with bulimia, Doucette (1992) encountered a number of aspects of inner experience emerged that would be difficult, if not impossible, to examine through traditional psychological methods. Bulimic participants were much more likely than controls to have multiple simultaneous experiences in their awareness for any given sample. For example, bulimics often reported multiple simultaneous thoughts containing seemingly unconnected content. Multiple awareness could be any two or more types of experience that seem to be unrelated in one’s experience. It is unlikely that multiple simultaneous internal processes would be discovered using any method other than DES. The diagnostic criteria for bulimia do not mention anything about multiple experiences, or, for that matter, anything at all about the experience of bulimia (American Psychiatric Association, 2000).
When sampling individuals with Asperger's syndrome (Hurlburt, Happe, & Frith, 1994), the researchers found that the primary, and essentially the only, salient characteristic found in the experience of individuals with Asperger's syndrome were images. Though this study did not report control data, other DES studies have demonstrated that individuals who do not meet the criteria for any psychological disorder experience many different phenomenon (Doucette, 1992; Hebert, 1991; Hugelshofer, 1997; Hurlburt 1990, 1991, 1993). It is apparent that traditional psychological approaches would not be able to capture the internal experience of those with Asperger's syndrome. The diagnostic criteria (American Psychiatric Association, 2000) for Asperger's syndrome include difficulties in social interactions as well as restricted and repetitive behavior. There is no mention of internal experience, let alone a rich visual inner life.

The depth of knowledge that can be attained using the DES method, in contrast to other methodologies, does not stop with the examples described above. In the following section on sampling anxiety and throughout following chapters, more examples will be described that help to understand the experience of individuals with anxiety.

DES may examine aspects of inner experience that psychology often overlooks, but how sound is the method? To date there has only been one study examining the psychometric properties of DES. An examination of the DES inter-rater reliability determined that the five most frequently occurring characteristics of experience (images, inner speech, unsymbolized thinking, feelings, and sensory awareness) have individual sample kappa values ranging from .52 to .92. The other eleven “types” of inner experience...
experience were observed with such a low frequency in participants that reliability statistics of these categories would have been unstable. Spearman-Brown adjustments were computed demonstrating inter-rater reliabilities ranging from .92 to .98 for 19-sample averages more typical of DES sampling (Hurlburt & Heavey, 2002). Despite the fact that there is little literature examining the psychometric properties of the DES method, the reported kappa values appear to be quite promising, and the face-validity of the method should be apparent.

Computerized Sampling, as proposed by Barrett and Barrett (2001), may be compatible with any of the seven methods used to sample the subjective experience of individuals. Computerized Sampling is a set of technological tools (software and personal data assistants) that can be used in sampling research to precisely control timing, track compliance, track response time, and reduce human error in data entry. These tools could prove to be useful in social, behavioral, and clinical research, though there is a paucity of literature currently available on the efficacy of computerized sampling. Depending on the flexibility of the software used, it is likely that computerized sampling may be more effective when obtaining quantitative nomothetic data, and difficult at best when obtaining qualitative idiographic data.

**Sampling and Anxiety**

Ingram wrote that those individuals who suffer from anxiety disorders experience a higher degree of self-focus when compared to controls (1990). Regardless of the validity of this claim, sampling the experience of individuals with symptoms of anxiety should be a useful and interesting undertaking. If Ingram is correct, it should also be an
easy undertaking since they may have an increased ability to recognize their internal experiences. If Ingram is not correct, then sampling may be able to demonstrate that fact. The two sampling methods that seem to hold the most promise in sampling would be the Experience Sampling Method (ESM) and Descriptive Experience Sampling (DES).

ESM has been used to examine the lives of individuals who present with symptoms of anxiety. Some examples include examining the number of samples an anxious individual is alone and under what circumstances (Dijkman & DeVries, 1987; 1991), the relationship between an anxious individual’s symptoms and her environment (Fave & Massimini, 1992), and the relationship between contextual (as well as environmental) stimuli and anxious symptomatology (Dijkman-Caes & deVries, 1992).

These studies are ecologically valid, examining many domains of an individual’s experience (work, recreation, home life, etc.) depending on the research question being asked. For example, Dijkman and DeVries (1987) sampled a 38-year-old woman who complained of infrequent panic attacks. A “wrist terminal watch” set to a random schedule would alert the participant to fill out an “individualized fear questionnaire,” a rating of avoidance, and a rating of mood 10 times a day between the hours of 7:30 a.m. and 11:00 p.m. When the researchers examined the relationship of anxiety and setting, they found that their participant was often alone at home and engaged in little social interaction when ratings of anxiety were high. They devised a behavioral treatment wherein the participant would increase her social interactions with neighbors.

However, the ESM method does not contribute much to our knowledge about how anxiety is experienced by individuals. Furthermore, psychologists have known for
some time that context and environment play a large role in the frequency and severity
of symptoms for a number of disorders. Therefore, ESM contributes very little to our
understanding of the experience of anxiety.

Three studies using DES have examined symptoms of anxiety (Hebert, 1991; Hugelshofer, 1997; Hurlburt, 1993). Though DES participants do not necessarily have
samples of experience taken from every domain of their lives, more information about
the experience of anxiety can be gained by using this method.

Hebert (1991) used the DES method to examine the inner experience of five
anxious individuals and three control participants. The anxious individuals reported a
variety of anxiety symptoms, ranging from test anxiety to post-traumatic stress, panic
attacks, and agoraphobia. Hebert found that the anxious individuals had fewer samples
containing feelings, and those sampled moments that did have feelings were most
commonly negative in valence and difficult for the participants to describe during the
sampling meetings.

The anxious participants in Hebert’s study experienced “indeterminate” images
at a higher frequency than did controls. Indeterminate images are those internal
visualizations that may lack clarity, color, or defined edges. Hebert wrote that all of the
anxious individuals predicted that images were a common part of their inner experience
before sampling began, and seemed to be frustrated when it became clear that images
were neither common nor clear, in color, nor well defined.

Hebert described two aspects of the inner experience of anxious individuals as
the “doing of hearing” and the “happening of speaking,” both of which were more
common, though were experienced more or less frequently, in anxious participants. The
doing of hearing was described by Hebert as a process of being an active participant in the process of hearing. Control participants were able to listen successfully to speech with little perceived effort in doing so. The anxious individuals who were sampled in this study, however, perceived themselves as somehow actively taking part in the listening process; listening was more an active endeavor than a passive one. The happening of speaking, on the other hand, was a process wherein the anxious individuals would occasionally be surprised by verbalizations that they themselves made with essentially no awareness they were going to say anything. The process of speaking in control participants was the way most would consider speech to occur. Controls were simultaneously consciously aware they would be speaking while actively engaged in doing so.

Hebert also found that anxious individuals experienced inner speech, unsymbolized thinking, rumination, and criticalness of self and others at higher frequencies than did controls. Anxious individuals were also more likely to experience aspects of their awareness as being located in specific locations inside their heads. Whereas inner speech, unsymbolized thinking, and criticalness of self and others are self-explanatory in the context of this work, rumination may require more detail. Hebert found that some of her anxious participants experienced a process of rapid repetition of the same thought was in awareness at the moment of the beep. These thoughts were rapidly repeating, seemingly outside of the control of the participants.

Hugelshofer (1997) examined the inner experience of three individuals with symptoms of obsessive-compulsive disorder and one control individual with an apparent lack of anxiety symptomatology. Participants with obsessive-compulsive symptoms
experienced unsymbolized thought and feelings more frequently than did the control participant. Though the feelings varied in their intensity, there was some difficulty in expressing the nature of the feeling; more so when the feelings were experienced as mental rather than physical. Feelings were experienced as being located in the body or both in the body and the mind roughly two-thirds of the time.

Feelings were not the only aspects of experience that were identified as being located in a specific location inside the head. In fact, Hugelshofer found that 29% of the obsessive-compulsive participants experienced various aspects of their awareness as being located somewhere inside the head. She then pointed out that such localization does not indicate that the experience is actually occurring in a specific location, simply that it is perceived as being located there.

Hugelshofer found that two of her three participants suffering from obsessive-compulsive symptoms had clear and colorful inner imagery, some of which were experienced as having full motion and sound. However, the other obsessive-compulsive participant did not experience images in any of her sampled moments.

There is knowledge to be gained about the nature of anxiety and how it is experienced. It seems that a very powerful way to get at this knowledge is by using the DES method. Since this method has been used very little with individuals reporting anxiety symptoms, the current study is a pilot designed to examine the experience of anxiety, with no formal hypotheses or expectations about what will be found.
CHAPTER 2

METHOD

This study had three phases, which will be called the screening phase, the sampling phase, and the analysis phase. Each will be described separately.

Screening Phase

Participants

Psychology students from introductory psychology courses at the University of Nevada, Las Vegas participated in the screening phase. There were 207 students involved, though specific demographic information is unavailable. Each participant was given one hour of psychology-course research credit for the screening.

Measures

Symptoms Checklist 90 – Revised (SCL-90-R; Derogatis, 1975): The SCL-90-R is a 90-item self-report questionnaire that asks respondents to indicate how characteristic certain behaviors are for them on a five-point scale. Response choices range from 0 – Not at all distressed by... to 4 – Extremely distressed by... All items begin with the stem “How much were you distressed by...” Examples include “Crying easily,” “Nausea or upset stomach,” “Overeating,” and “The feeling that something bad is going to happen to you.” Significant distress is indicated when a sub-scale T-score is greater than 70.
The four scales of the SCL-90-R used in this study are anxiety, obsessive-compulsive, phobic anxiety, and depression. The anxiety scale is composed of ten items that deal with general signs of anxiety, panic attacks, and somatic correlates of anxiety. The obsessive-compulsive scale is composed of ten items focused on thoughts, impulses, and actions that are unwanted. The phobic anxiety scale is composed of seven items primarily involving fear and avoidance of social situations. Finally, the depression scale is composed of 13 items that reflect a range of symptoms common in clinical depression.

**Procedure**

Participants in the screening phase were self-selected. If they needed or wanted to participate in a research project, they signed their names to a sign-up sheet on a psychology research bulletin board. Once students arrived for screening, they were told that the SCL-90-R is most commonly used as a screening device, that their responses were confidential, and that if they were chosen to participate in the next phase of the study based on their responses they could decline to continue. Participants then signed an informed consent form and completed both the SCL-90-R as well as a contact information sheet.

Individuals who had high scores (T-score > 70) on one or more of the SCL-90-R scales obsessive-compulsive, anxiety, or phobia were advanced to a participant pool for the sampling phase as anxiety participants. A similar pool of participants with relatively low scores on the obsessive-compulsive, anxiety, phobia, and depression scales were advanced to the sampling phase as potential controls.
Sampling Phase

Participants

Eight of the participants (5 anxious and 3 controls) selected in the Screening Phase served as participants. Anxious individuals had obsessive-compulsive T-scores ranging from 64 to 76, anxiety T-scores ranging from 66 to 81, and phobia T-scores ranging from 66 to 71. All five of the anxious participants had SCL-90-R depression T-scores less than 70. The control participants all had T-scores for the obsessive-compulsive, anxiety, phobia, and depression subscales ranging from 40 to 54.

Participants received one hour of credit for the introductory meeting and one hour of credit and $10 for each sampling session, with a bonus of $10 for completion. The number of sampling sessions per participant ranged from four to nine.

Measures

Beck Depression Inventory – II (BDI-II; Beck, 1996): The BDI-II is a 21-item self-report questionnaire asking individuals to rate the presence of a characteristic or symptom of depression during the two weeks prior to its completion. Responses to each item are given on four-point scales ranging from a response of “0” indicating a lack of a characteristic or symptom to “3”, which indicates strong endorsement of an item. An example is “Crying,” with responses ranging from 0 – I don’t cry anymore than I used to, to 3 – I feel like crying, but I can’t.

Beck Anxiety Inventory (BAI; Beck, 1990): The BAI is a 21-item self-report questionnaire used to assess the presence of anxiety symptoms during the two weeks prior to its completion. Each symptom, such as “Nervousness,” can be responded to
with either, Not at all, Mildly: it did not bother me much, Moderately: it was very unpleasant, but I could stand it, or Severely: I could barely stand it.

**Apparatus and Procedure**

Both the anxious individuals and the controls were assessed using the Beck Depression Inventory BDI-II and the Beck Anxiety Inventory before the first sampling session and following the last sampling session.

Participants in the sampling phase engaged in the standard DES procedure with interviews conducted jointly by the author and his advisor. Participants were given a portable "beeper" approximately 4 ½ inches high by 2 ½ inches wide by ¾ inches deep. At random intervals ranging from one minute to one hour the beeper emitted a 700 Hz beep through a radio-type earphone. Participants were to determine what was in their experience at the instant the beep begins. Each participant was provided with a notebook to write down what they would need in order to be able to discuss the moment during a sampling session. Participants could use other recording devices if they desired, so a mini-cassette recorder or other recording device would be acceptable, but none chose these options. Participants collected six such samples in preparation for a sampling meeting with the researchers. Within 24 hours of collecting these six samples, participants participated in an intensive expositional interview aimed at eliciting the details of the sampled moments, including any cognitive, emotional, and sensory aspects of experience. Once enough samples have been examined so that salient characteristics seem to emerge, they were finished with the sampling phase of the study.
Analysis Phase

Participants

The same participants who completed the sampling phase served as participants in the analysis phase.

Procedure

The researchers wrote a description of the participants' inner experiences. Descriptions initially included a detailed account of every aspect of inner experience that occurred during each sampled moment. The researchers then discussed all samples for each participant separately. This was done by reviewing every sample description for a participant, examining the characteristics of their inner experience that were frequently occurring, and discussing aspects of their inner experience that seemed to be central to their inner experience. These central experiences included awareness of specific locations of experience, the strength of the experience, and focus of awareness. Other aspects that were central to participant awareness will be discussed in the following chapters. Once the researchers agreed on the salient characteristics for each participant, result chapters were written for each. The participant then reviewed this chapter in order to resolve any discrepancies that may exist between the researchers' interpretations of the participants' experiences. It may then be possible to explain what kinds of experiences are shared, and to what degree, by the anxious individuals who participated in the study.
Beginning in this chapter and ending in Chapter 7, idiographic accounts will be given of each of the anxious participants. One individual chapter has been devoted to each participant. These accounts will be followed by three chapters that will contain the idiographic accounts of the control participants (Chapter 8 through Chapter 10). Chapter 11 and Chapter 12 will contain the nomothetic group comparisons and a comparison of these findings to other DES anxiety studies respectively.

Rick (not his real name) was a 20-year-old undergraduate at the University of Nevada, Las Vegas. He was selected to participate in the sampling phase after scoring high on the anxiety and phobic anxiety sub-scales of the SCL-90-R (T-Scores of 81 and 71 respectively) during the screening phase. His baseline BAI and BDI-II scores were 20 and 19, respectively, which would be categorized as moderate to severe symptoms.

Rick completed five sampling sessions over a 20 day period. These sessions yielded 24 usable samples. From these samples, six salient characteristics of Rick’s inner experience seemed to emerge. Ten (42%) of his samples contained sensory awareness; inner speech occurred in seven (29%) samples; nothing (a complete lack of awareness of inner experiences) occurred in six (25%) samples; unsymbolized thinking occurred in five (21%) samples; feeling occurred in five (21%) samples; and self
criticism occurred in three (13%) samples. Each of these salient characteristics will be described and exemplified in the following sections beginning with the most frequently occurring.

Sensory Awareness

Rick experienced some form of sensory awareness in 10 (42%) samples. In six of these samples he was aware, to varying degrees, of being intently focused on external visual stimuli. In Sample #14 Rick was acutely aware of staring at the hands of a wall-clock trying to determine what time it was. This staring was more than an intent gaze, however. It was as if by examining the hands of the clock, Rick would somehow be enlightened and given the time by focusing his attention on the clock’s hands. While focusing on the clock hands, Rick also heard a song by Ozzy Osbourne accurately replaying in his head (an example of inner hearing). Furthermore, he was anxious at the moment of the beep, though it was outside of his awareness at that moment (an example of Feeling Fact of Body).

In Sample #16 Rick was staring at the bottles of vitamins on his dresser, which he had been doing for some time. At the moment of the beep he was aware of staring at one specific vitamin bottle. He also was in the process of wondering what other vitamins he needed to take, an example of unsymbolized thinking. This wondering did not involve Rick asking himself a question, however.

The other four of Rick’s sensory awareness experiences involved Rick experiencing tactile sensations or tasting something. Sample #5 was one such sample; and was a particularly strong sensory awareness experience for Rick. At the moment of
the beep Rick was driving around town with his car window down. Rick experienced both the sensation of the sun hitting his face and the sensation of wind blowing on him as he drove. Not only was he acutely aware of these stimuli, but they transported him back to his “carefree” high-school days. This particular moment was not merely similar to, or a reminder of, a time when he was driving around, instead Rick was actually experiencing this time again. Because of the strong emphasis on the sensory aspects of the present experience and the re-experiencing of the same kinds of sensory aspects as if imported from his high-school days, this sample is one of two samples of “pure sensory awareness” experienced by Rick. “Pure sensory awareness” is discussed in Chapter 12.

Inner Speech

Seven (29%) of Rick’s samples contained inner speech. In all but one of these samples Rick was speaking in his inner voice maintaining the speech characteristics he would have used were he speaking aloud. In Sample #1 Rick was at his girlfriend’s house looking in the refrigerator for something to eat. One of Rick’s friends had told Rick that he should eat French-toast leftovers. At the moment of the beep Rick was in the process of saying aloud, “Man, you’re always trying to get me to eat this kind of stuff,” while simultaneously saying in his inner voice, “You eat it.” This statement was in preparation of what Rick would have said were it not for the beep.

In Sample #11 Rick was looking out of his kitchen window at his car. At the moment of the beep Rick was in the process of speaking in his inner voice saying, “I wonder how much gas I have?”

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The one instance of Rick speaking in an inner voice that differed slightly from his external voice occurred in Sample #13. Rick had been watching a news story about a school shooting in California. At the moment of the beep, Rick was imitating the inflection and the high pitch of the newscaster in his inner voice. The speech, were it spoken aloud, would have sounded like Rick with some inflection and pitch change. This was the only thing in Rick’s awareness at the moment of the beep. Rick was no longer attending to the television.

Nothing

In six (25%) of Rick’s samples he was not aware of any type of experience at the moment of the beep. There were also two samples that Rick chose not to include in sampling after the second session. He reported that these samples were similar to other “nothing” responses that had occurred previously and he did not consider them to be important. He did record this type of sample after researchers told Rick that a lack of inner experience was just as interesting as the occurrence of inner experience. The two samples omitted by Rick were not used in determining the number of nothing samples.

In Sample #7 Rick had just stood up from his couch. At the moment of the beep his experience was completely empty. Though Rick was uncertain why he stood up, this thought was not in his awareness. Furthermore, his eyes were aimed in the general direction of his stove and laundry room, but he was not aware of seeing anything.

In Sample #15 Rick was walking toward his bedroom to go to sleep for the night. Some moments earlier he had wondered if it were going to rain, but at the moment of the
beep this thought was no longer in his awareness. Though he was walking toward his room, this process was happening automatically and completely out of Rick’s awareness.

In Samples #24 Rick was walking toward his front door. Before he began walking for the door he had thought about checking the mail. At the moment of the beep, however, he was simply walking with nothing in his awareness.

Unsymbolized Thinking

Rick experienced unsymbolized thinking in five (21%) samples. In Sample #9 Rick was sitting in a room with one of his friends. His friend was on the phone and Rick was looking at the phone wondering who was on the other end of the telephone line. This wondering was not in the form of a question, but rather was just a knowing that he was curious about who was on the other end of the telephone.

In Sample #10 Rick was eating a cheeseburger and staring at a pool of catsup that had dripped from the backside of his food. He had thought to himself that if he had been leaning over the table, then the catsup would have fallen on his clothes. This thought took the form of just knowing that the catsup would have fallen on him. Also at the moment of the beep, Rick’s eyes were intently focused on the drip of catsup (an example of sensory awareness).

In Sample #12 Rick was in his living-room. The microwave had just made a dingiing sound, which Rick reacted to by turning his head in the direction of the microwave. At the moment of the beep he was wondering who was cooking and what was being cooked. This wondering was not accompanied by words, images, or any other form of inner experience.
Feelings

Feelings occurred in five (21%) of Rick’s samples. In four of the five samples Rick was experiencing anger at himself or others. This anger was experienced as being located in his head. There were also samples in which Rick reported being angry, but the anger was not in his awareness at the moment of the beep. In Sample #22 Rick was standing in his bedroom visually attending to the clothes that were lying on his bedroom floor. At the same moment he was feeling a strong sense of anger directed at himself about the disarray of his room. He explained this feeling as “another fault in myself that is recognized.”

In Sample #23 Rick was staring at a form from Gold’s Gym. His bank had been paying the gym $200.00 each month for approximately five months. When Rick realized he was still paying the gym he notified the bank, and then had been procrastinating filling out the forms they had sent to him. At the moment of the beep he was staring intently at the form and was feeling extremely angry in his head. This anger also manifested itself as the string of profanity, “Stupid fucking assholes making me do this shit,” spoken in his inner voice, an example of inner speech.

Sample #19 is the example of a feeling in which anger is not present. Rick was in his kitchen eating an apple. At the moment of the beep he was aware of tasting the sweetness of the apple. Rick felt enjoyment from the taste, which took the form of waves of pleasure that flowed through Rick’s entire body. He was eating the apple progressively faster and believed this was a result of the pleasure he was taking in the apple’s taste.
Self Criticism

Three (13%) of Rick's samples contained self-criticism as a portion of Rick's inner experience. In all three samples Rick experienced anger directed toward himself. As was stated above in the section on feelings, Rick's anger is experienced primarily in his head. In Sample #8 Rick was sitting on his couch looking at his shoes. He was saying to himself in his inner voice, "I need a new pair of shoes." He was feeling anger in his head and directed toward himself for the condition of his shoes. He was also thinking that he should have taken better care of them, though he may not have been aware of this thought at the moment of the beep.

In Sample #22 (a sample discussed above in the feelings section) Rick was standing in his bedroom considering his laundry, though his thoughts were not in his awareness. He was aware of looking at the clothes on his floor at the moment of the beep. At the same time Rick was feeling anger in his head that he had not kept his room cleaner. Part of the anger was described as feeling that another inherent fault within Rick had been recognized.

Sample #25 also took place in Rick's bedroom while he was looking at the clothes on his floor. Rick had just said in his inner voice with the same characteristics of speech he would use to speak aloud, "You are a slob." Though the vocal characteristics of his inner speech were the same as they would have been had he been speaking aloud, Rick reported that it was more serious than if he had spoken aloud. This was due to the fact that he had a negative feeling in his head that was directed toward his habits and knowledge that he was finding more faults in himself.
ANXIETY PARTICIPANT IDIOGRAPHIC RESULTS: STACY

Stacy (not her real name) was a 23-year-old international student attending the University of Nevada, Las Vegas. She was selected to participate in the sampling phase after scoring high on the obsessive-compulsive and phobic anxiety sub-scales of the SCL-90-R (with T-Scores of 76 and 70 respectively) during the screening phase. Her baseline BAI score was 15 (mild to moderate symptoms), and her BDI-II score was 19 (moderate to severe symptoms).

Stacy participated in nine sampling sessions over a 16 day period during the sampling phase. These sessions yielded 47 usable samples. There were seven samples that were not used because they were “no comments” by Stacy. The moment of the beep for each of these samples occurred when she was engaged in personal activities. From her 47 usable samples, a number of salient characteristics emerged. Feelings occurred in 28 (60%) of her samples [seven (15%) of those involved multiple simultaneous feelings]; sensory awareness occurred in 22 (47%) samples; unsymbolized thinking occurred in 21 (45%) samples; images occurred in 12 (26%) samples; inner speech occurred in 4 (9%) samples; and feeling-thinking occurred in 4 (9%) samples. Each of these salient characteristics will be described and exemplified in the following sections beginning with the most frequently occurring.
Feelings occurred in 28 (60%) of Stacy’s samples. Seven (25%) of these feeling samples included multiple simultaneous feelings. Stacy’s feelings typically were experienced in her head and upper chest and ranged from barely perceivable to extremely intense. There were also a number of feelings that seemed to be a part of a larger phenomenon that included both emotional and thought components; these samples will be discussed in the section of this chapter called “Feeling-Thinking” below.

A feeling with a low level of intensity occurred in Sample #23. Stacy was walking to the grocery store to purchase a gallon of milk. At the moment of the beep she was aware of the sensation that the wind made as it touched her face. This sensory awareness of the wind aroused an annoyed feeling which manifested itself as pressure in her chest and head. At the same moment, she was seeing two alternating visual images, the first was a gallon of milk, and the other was the word “milk” printed in gray letters.

A more intense feeling occurred in Sample #36. At the moment of the beep Stacy was in a pet store petting a “pug” puppy with a black face. She was bent down and running her hands on the underside of its neck. Most of her attention was focused on the sensory awarenesses associated with petting the dog, but she also had feelings of caring and desire to own the puppy. These feelings manifested themselves as tension in her teeth and jaws. This tension not only included a clenching of her teeth, but was also experienced as a high frequency humming in her teeth, and an urge to bite the puppy, in a chomping, nibbling manner.

One of the most intense feelings experienced by Stacy occurred in Sample #28. Stacy was watching a documentary on individuals living in the Congo who eat gorillas.
At the moment of the beep she was no longer attending to the television program, but was focused on an intense feeling of anger in her head, brain, and chest, which was directed at the journalists for involving themselves in foreign cultures (Stacy stated that she did not think it was right for journalists to pass judgments on practices of foreign cultures). Stacy experienced this feeling as being overwhelmingly powerful; her attention was focused solely on this feeling of anger.

Multiple Simultaneous Feelings

Seven of Stacy's samples included multiple, sometimes incongruent, feelings that occurred simultaneously. In Sample #34 Stacy was at the mall food court eating a "hotdog on a stick." At the moment of the beep she was feeling happy about eating her food and her surroundings including the air-conditioning, the other people in the food court, and the décor. This happiness manifested itself as a relaxed feeling in her chest primarily, but in the rest of her body as well. In the same moment Stacy was experiencing a second feeling of being sexy and about the way in which she was dressed. This sexiness was a mental and physical tingly or "sparkly" feeling of being attractive to men; it was located in her chest and to a lesser degree in her head. Most of her attention at the moment of the beep was focused on the taste (sensory awareness) of her food.

In Sample #49 Stacy was in an elevator on campus. She was experiencing a general happiness in both her chest and her head. At the same time she was experiencing a second separate feeling of nostalgia as the smell of the elevator reminded her of her favorite elevator in Lausanne, Switzerland. She also saw an image of herself

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Standing in the Swiss elevator, as if viewed from directly behind herself. In the image she could see that her imagined self was wearing a blue, beige, and white dress that looked like the one she had actually worn when she was in Switzerland. She knew that the image was set in the summer.

At the moment of Sample #15 Stacy was in her bedroom listening to a “techno” song on her stereo. She was crying and feeling sad in both her body and her head. Stacy attributed this sadness to the sad mood of the song she was hearing. At the same moment she was also feeling joy, which was separate from but related to her experience of sadness. The joy feeling was co-located in her body and head along with the feelings of sadness, but the two feelings were distinctly separate. She was also somewhat aware of a pain in the front and inside of her right shoulder (a sensory awareness) at the moment of the beep.

Sensory Awareness

Twenty-two (47%) of Stacy’s samples contained sensory awareness. They ranged in complexity from a mere sensory noticing to a higher degree of sensory focus. The noteworthy aspects of Stacy’s sensory experiences are the frequency with which they were present in her awareness during sampling and the variability and richness of their content.

An example of mere sensory noticing occurred in Sample #9. Just prior to the moment of the beep Stacy had asked herself the question “Should I check the mail now or later?” At the moment of the beep she was visually attending to the gray carpet she was sitting on. Her eyes were not merely directed toward the carpet, but rather she was
examining it—absorbing its characteristics. She was also thinking that she would not go to the mailbox due to the way she had been feeling physically. This thinking was an unsymbolized knowing that she did not want to check the mailbox.

A higher degree of sensory focus can be seen in Sample #37, when Stacy was walking to the University while eating a sandwich. Most of her awareness at the moment of the beep was focused on the way the cheese tasted in her mouth and the warmth of the bread on her fingers. At the same time in her awareness she was feeling rushed—that she needed to hurry in order to get to school on time. This feeling was manifested as an urge to increase the speed at which she was walking.

Another sample containing a higher degree of sensory focus is Sample #52. At the moment of the beep Stacy was in a 7-11 store squeezing a loaf of bread. Since there were no prices listed for the bread, she was attempting to determine the quality of the bread based on how soft it was and what the packaging looked like. So, she was experiencing the bread through her sense of touch and visually examining the characteristics of the packaging. She also was experiencing a knowing that somehow nice packaging meant quality and deliciousness.

At the moment of the beep for three of Stacy's samples she was aware only of sensory experiencing; Sample 25 is one such example. At the moment of the beep she was dozing off and was aware of doing so. She was aware of a physical and mental tiredness. She had noted that the physical aspect of this tiredness was a heavy feeling primarily in her legs while the mental aspect was primarily a sluggish feeling in her head. She was also monitoring a lecture in class, but did not comprehend the words. The issue of "pure sensory awareness" will be addressed in Chapter 12.
Unsymbolized Thinking

Unsymbolized thinking occurred in 21 (45%) of Stacy’s samples. In Sample #22 Stacy was making a call to her bank’s automated phone service. At the moment of the beep she was picking up the receiver and thinking to herself that she wanted to speak to a “real” operator. This thinking took the form of knowing that her problem hadn’t been solved and that she wanted to speak to a live person.

In Sample #47 Stacy was walking to her refrigerator. She was experiencing hunger which included a growling and the sensation of emptiness in her stomach. Accompanying her feelings of hunger was a knowing that she would be able to find something to eat in the refrigerator.

In Sample #52 (which was described above in the Sensory Awareness section), Stacy was in a 7-11 convenience store picking out bread. In her awareness at the moment of the beep was a knowing that soft bread and visually “nice” packaging meant quality and deliciousness. In the same moment she was aware of the tactile sensation of the bread and the visual characteristics of the packaging.

At the moment of the beep in Sample #26 Stacy was in a computer lab and had just clicked on a link to a Presidential pardons web site. She was focused on the thinking process itself, which seemed to take place in her eyes and her forehead, though she was unaware of the content of her thoughts. This experience was extremely intense for Stacy, and was experienced as some kind of knowing that she was thinking as well as an awareness of where the thinking was taking place.
Images

Twelve (26%) of Stacy’s samples contained images. In Sample #1 Stacy was calculating her monthly budget on a calculator. She was adding numbers; at the moment of the beep was looking at the number 1,450 on her calculator display. As she was seeing the number 1,450 on the calculator she was also experiencing an inner image of the number 1,450 in black type-written or calculator digits moving from approximately 45-degrees left to 45-degrees right across her visual field.

In Sample #16 Stacy was laying on her right side on her bed staring at her window blinds. She was listening to “trance” music, and saw an image of herself as if she were one foot tall. In the image, the miniature Stacy was dancing to the music. The imaged Stacy was outlined in pink and filled with black, the color white was also present in the image as both a light source, and some white spots on the imaged Stacy. Stacy’s perspective was from behind the dancer, although the imaged Stacy did turn to either profile while dancing. There were also other miniature individuals in the image, but her focus was not on any of them. She also had an understanding that the imaged Stacy was happy.

Before the beep for Sample #39 Stacy was picking up her textbooks preparing to leave class, and was attempting to determine whether she would attend her next class or not. At the moment of the beep, she was still trying to decide, which was accompanied by a feeling of guilt that was experienced from her waist up to the top of her head. At the same moment she saw two images, one of the classroom she was considering not going to, the other of the professor who taught that course. In the first image, Stacy could see the classroom as if standing in the open doorway. In the second image she
could see her professor as if she were standing in front of Stacy and to her left. The decision making process was separate from both of the images.

Inner Speech

Inner speech occurred in 4 (9%) of Stacy’s samples. Though the voice Stacy spoke in was always her own, there were variations ranging from the way she would speak aloud to changes in tone, volume, cadence, and urgency. In Sample #14 Stacy was walking home from school hearing a “techno” song that had been playing in her head. She was in the middle of an internal discussion that she was having with herself. Just prior to the moment of the beep she had asked herself “Do I miss Lausanne?” (Switzerland). The beep came just after she asked the question and prior to the answer, though the question was still in her awareness at the moment of the beep. Furthermore, Stacy was also aware of a longing feeling growing stronger in her head and chest.

In Sample #19 Stacy was sitting in the University Student Union staring at a beige colored table, which she was not attending to at the moment of the beep. She was however aware of saying to herself “I don’t know,” in reference to a question she had asked herself moments before. Her voice was the same as if she had spoken aloud except the tone of her voice was much softer.

In Sample #30 Stacy was walking and saying in her inner voice, “Hmmm, maybe I should do that for my next assignment” (referring to the journalist reports that certain inhabitants of the Congo eat gorillas). Her voice was in a deeper tone, of a lower volume, slower cadence, and more calm than if she would have spoken aloud, although it was her own voice. She had been angry about the topic earlier (see the section on
Feelings), but this anger now felt like a productive or creative insight or revelation about her possible course project. This revelation took the form of an intense feeling in her head.

Feeling – Thinking

In four (9%) of Stacy’s samples there was a process that had both a feeling and a thinking component. These processes were not separate (thinking about dinner and feeling eager about eating), but instead were integrated. The following examples exemplify the phenomenon.

In Sample #24 Stacy was lying down staring at her teddy bear and thinking about her father’s “condition.” At the moment of the beep she could see an image of her father’s shoulders and head; in this image he was smiling at her. She was missing him in her heart, which was an intense, focused, and sharp feeling in her chest. In the same moment she was worried for her father, which was both a thought and a feeling simultaneously. This worry was experienced by Stacy as some kind of a knowing hope; it was not experienced as a separate knowing about his condition and feeling hope, but rather as one single aspect of her awareness.

In Sample #43 Stacy was in her house talking with a male friend about what they should do for the day. At the moment of the beep she was listening to him speak as well as looking at him. A majority of her attention was focused on a worrying that was both a thought and a feeling. This thought-feeling manifested itself as an acceleration of the pounding of her heart and thoughts revolving primarily around her essays. Though peripherally there were also thoughts including fear, profanity, failure, and her
professors' reaction to the work she had been doing. The pounding of Stacy's heart and the thoughts about the essays were experienced as one unified aspect of her inner awareness. She did not simply experience pounding in her heart and thoughts about essays as two distinct inner experiences.

Sample #44 was a continuation and intensification of the thought-feelings of worry that had occurred in Sample #43. Stacy was sitting down. Her thought-feelings of worry that had been experienced in Sample #43 were still occurring at the moment of the beep. This aspect of her experience now involved summer work and family, on top of the original racing heart and worry over essays. At the same moment Stacy also felt as if her tongue was being held in place, thus preventing words from being thought or spoken. Her hands were cold and clammy and her right leg was bouncing with her heel connected to the floor, but she was not really aware of these characteristics at the moment of the beep.
Amy (not her real name) was a 21-year-old undergraduate at the University of Nevada, Las Vegas. She was selected to participate in the sampling phase after scoring high (T-score of 70) on the anxiety scale of the SCL-90-R during the screening phase. Her baseline BAI and BDI-II scores were 22 and 19, respectively, which would be categorized as moderate to severe symptoms. Amy completed six sampling sessions over a 12 day period. These sessions yielded 30 usable samples. From these samples, six salient characteristics of Amy’s inner experience seemed to emerge. Sensory awareness occurred in ten (33%) of her samples; unsymbolized thinking occurred in eight (27%) samples; images occurred in seven (23%) samples; feeling occurred in five (17%) samples; just doing occurred in five (17%) samples; and inner speech occurred in three (10%) samples. Each of these salient characteristics will be described and exemplified in the following sections beginning with the most frequently occurring.

Sensory Awareness

Ten (33%) of Amy’s samples contained sensory awareness. In six of these samples Amy was focused on bodily sensations such as an ache, itch, pain, or tickle, whereas in the other four samples Amy was seeing or hearing external stimuli. An
example of Amy’s sensory awareness focused on a bodily sensation occurred in Sample #20. Amy was sitting in front of her computer monitor paying some visual attention to skimming her email. Most of her awareness, however, was focused on an itching sensation inside of her nose. She was wiggling her nose in response, though she was not attending to this wiggling action at the moment of the beep. Because Amy’s experience included only sensory awareness, and no other form of inner experience, this is a “pure sensory awareness” sample, one of six such samples for Amy.

Another example of pure sensory awareness focused on bodily sensation occurred in Sample #23. At the moment of the beep Amy was laying on her back stretching. The only thing in her awareness was a “good sensation” in her upper right shoulder. This sensory awareness was a warm and relaxed feeling in her shoulder.

An example of Amy’s focusing on an external stimulus, and another example of pure sensory awareness occurred in Sample #7. At the moment of the beep Amy was visually attending to the pattern of salt crystals on a Pringles Ranch potato chip that she was holding in her hand. Though she was also chewing another potato chip at the moment, it was not in her awareness at the moment of the beep.

Unsymbolized Thinking

Unsymbolized thinking occurred in 8 (27%) of Amy’s samples. These experiences involve thinking that did not include images, inner speech, inner hearing, or any other type of symbolization. These thoughts are a “just knowing” of the thought content. In Sample #22 Amy was about to swallow a Tylenol that was already in her mouth. In her left hand she was holding a drink which was almost to her mouth. She
was thinking about how much she hated to swallow pills, which, if put into words, may have been something like, “I hate to take pills.” This sample did not contain words however, and simply took the form of simply knowing without symbols that she did not like to take pills.

In Sample #14 Amy was dipping her pizza in garlic sauce. She was attempting to dip the pizza without any of the mushrooms or cheese falling into the sauce. This act was accompanied by a cognitive understanding, that if put into words may have sounded something like, “I need to keep the toppings on my pizza” or “I don’t want to make a mess.”

A more complex example of unsymbolized thinking occurred in Sample #28. Amy was sitting in front of her computer visually skimming through a research methods paper on psychological testing which she had written. This visual skimming was not in her awareness at the moment of the beep. Instead she was experiencing a number of thoughts about the paper, which if put into words may have been “this paper is really boring” and “I am so glad to be done writing it.” No one thought was focused in her awareness at the moment of the beep, but each of them was present.

Images

Seven (23%) of Amy’s samples contained images. At the moment of the beep in Sample #10, Amy was seeing a clear image of the word “Capriotti’s” [a local restaurant] in script as if it were on a menu. Amy was also holding a tissue up to her nose and was in the process of saying aloud, “Capriotti’s closed at 7:00, so it is too late.” She was not attending to the tissue or her verbalization, however.
In Sample #13 Amy was somewhat aware of looking at a male friend who was eating pizza in her living room. At the moment of the beep she was thinking about getting napkins, which took the form of a clear and colorful image of her kitchen countertop where the napkin holder was, as well as a container that sat in front of it and cookbooks that sat to its right. The image was an accurate re-creation of the way her kitchen counter actually looked except that the intricate pattern of pink and blue swirls on the real napkins was actually different from those in the image.

In Sample #26 Amy was talking on the phone with her sister, who had just returned from the fast food restaurant “Sonic,” where her sister had eaten with her friends. At the moment of the beep Amy saw an image of six people sitting around a round table. She saw the individuals in the image as if she were at a distance of approximately 50 feet away, and though she did not see the sign, she knew the location was an outdoor eating area at Sonic. The details of the restaurant in the image were not accurate; instead of the Sonic near her sister’s house (with which Amy was unfamiliar) Amy was seeing the Sonic near her own home. The people sitting were not completely clear, as if viewed from a distance. She knew one of these individuals was her sister and the other people sitting around the table were males. Furthermore, she was aware of hearing her sister speak to her on the telephone at the moment of the beep.

Feelings

Five (17%) of Amy’s samples contained feelings. One example occurred in Sample #8. Amy was in the process of pushing the “1” button on her television remote control. Her male roommate had asked her to change the channel to watch sports, which
she was doing reluctantly. A portion of her awareness was focused on a mad, exasperated feeling in her head.

In Sample #29 Amy was in the process of feeding paper one piece at a time into her printer, which was located on a shelf high off the ground. She was wondering why the printer wasn’t on a different part of the desk so that she could fill the paper more comfortably. This wondering is an example of unsymbolized thinking. Amy also experienced some discomfort in her right arm from feeding paper into the printer. This discomfort is an example of sensory awareness. In the same moment Amy was feeling annoyed over the discomfort in her arm and the awkward place in which the printer was located. This feeling was located in her head.

In Sample #30 Amy was watching “Friends” on television. She was looking at actress Jennifer Aniston’s hair and was aware of doing so. While actively watching the program on television, Amy had a feeling of liking Jennifer Aniston’s hair. This feeling was also located in Amy’s head.

Just Doing

In five (17%) samples Amy was simply in the act of doing something at the moment of the beep, the first instance occurred in Sample #4. At the moment of the beep Amy was focused on a solitaire game she was playing on her computer.

Another instance of just doing occurred in Sample #16. Amy was clearing off her coffee table. At the moment of the beep she was picking up a napkin that had pizza sauce on it. She was grabbing the end of the napkin and lifting it off of the coffee table.
Though she had thought about the sauce on the napkin earlier, the act of picking up the napkin was the only thing in her awareness at the moment of the beep.

A final example occurred in Sample #24. Amy was in the process of shaking out a shirt to place in the washing machine. This was the only thing in her awareness.

Amy was aware of being actively engaged in playing solitaire, picking up a napkin, and shaking a shirt out in the aforementioned samples. It is possible, however, that one could engage in these activities automatically and without awareness.

Inner Speech

Inner speech occurred in three (10%) of Amy’s samples. In Sample #2 Amy was on-line looking at the library’s web page. She was going to renew her library books and was in the process of counting the number of days her books were overdue. She was counting the days on her left fingers while speaking in her inner voice saying “9, 10, 11, 12.”

In Sample #19 Amy was in the middle of a yawn, which she was not aware of. She was saying to herself, “My head hurts.” This inner saying was as if Amy were speaking aloud, though it was an internal experience. Furthermore, she was aware of headache pain located behind her forehead (an example of sensory awareness).

At Sample #31, Amy was at the stove stirring Hamburger Helper. At the moment of the beep she was using a wooden spoon trying to get a carrot out of the pan without taking meat out with it. In her inner voice she was saying “Come on carrot!” as if she were calling a dog. Her inner speech was in her own voice with the same
characteristics as if the statement were made aloud. She was also aware of steering the spoon away from the hamburger in the pan.
ANXIETY PARTICIPANT IDIOGRAPHIC RESULTS: APRIL

April (not her real name) was an 18-year-old undergraduate in her first year at the University of Nevada, Las Vegas. April was selected to participate in the sampling phase after scoring high (T-score of 71) on the obsessive-compulsive scale of the SCL-90-R during the screening phase. Her baseline BAI score was 25 (moderate to severe symptoms), and her BDI-II score was 34 (severe symptoms).

April completed six sampling sessions over a period of 12 days. These sessions yielded 36 usable samples. From these samples, five salient characteristics of April’s inner experience seemed to emerge. Sensory awareness occurred in 28 (78%) samples; feelings occurred in 7 (19%) samples; inner speech occurred in 6 (17%) samples; images occurred in 6 (17%) samples; and processing without awareness occurred in 2 (6%) samples. Each of these salient characteristics will be described and exemplified in the following sections beginning with the most frequently occurring.

Sensory Awareness

Nearly all (78%) of April’s samples contained sensory awareness, where some or all of April’s awareness was focused on hearing, seeing, or feeling some aspect of the external environment. Sensory awareness involves awareness of the sensory
characteristics of an experience, not simply the existence of sensation. For example, one could be aware of seeing the blue carpet (not sensory awareness) or she could be focused on the particular light shadowy blueness of the carpet (sensory awareness). The amount of attention April focused on the sensory aspects of her experience fell on a continuum ranging from a mere taking note of seeing, hearing, or feeling something to an intense focus on some aspect(s) of her surroundings. Not only was sensory awareness a frequent characteristic of April's experience, but she was able to focus on multiple stimuli or selectively attend to stimuli, to a high degree.

At the moment of the beep for Sample #11, April was standing with her back to the television looking at a newspaper on the floor. Her eyes were directed toward a headline. She was attending to the visual characteristics of the headline—the shape and spacing of the letters—but she had no comprehension of said headline's content.

Another example from the less focused end of the sensory awareness continuum occurred in Sample #20. April was stepping into her closet while folding a sweater when static build-up shocked her left pointer and middle fingers. At the moment of the beep her attention was focused on those two fingers and the slight pain she could feel in them. Because April's experience included only sensory awareness, and no other form of inner experience, this is a "pure sensory awareness" sample, one of 12 such samples for April.

Other sampled moments of April's experience include more complex and focused sensory awareness. At Sample #6, April was standing outside listening to her General Manager speak to her. The General Manager was criticizing her, and had just finished asking, "What am I doing to be negative around you?" At the moment of the
beep April was looking at and attending to her manager's irritated face, more for its visual characteristics than for its implied criticism. She was also aware of the wind blowing around her, the sensation caused by her arms being folded across her chest, and the noisy cars driving by. Her manager's face, the wind, her folded arms, and the noise of the passing automobiles were all aspects of sensory awarenesses that were occurring simultaneously at the moment of the beep. In fact, her focus on these sensations was so intense that she was paying little attention to what her supervisor was saying. This sample is another of April's pure sensory awareness experiences.

Another example of complex sensory awareness occurred in Sample #21. April was at Wal-Mart looking at a "vegetable doll." At the moment of the beep she was visually examining and attending to the eyes of the doll (sensory awareness) and thinking to herself (unsymbolized thinking) how funny they looked. A large portion of her awareness was focused on monitoring other shoppers, at whom she was looking in her periphery. Furthermore, she felt a scared feeling which manifested itself as shaking in her body and a mental alertness at the possibility that the people around her may be looking at, and making judgments about, her. Visually examining the eyes of the doll, looking at other shoppers in her periphery, and feeling her body quiver were all aspects of April's awareness at the moment of the beep.

It was possible for April to pay attention to a number of sensations at any given moment; it was also possible for April skillfully to avoid sensory input. Sample #4 is an example of focused sensory awareness wherein April was actively blocking out stimuli. April was standing with her arms folded in front of the General Manager at her place of employment. At the moment of the beep she was not attending to what was being said.
to her by her manager, but instead was visually attending to the feet of two co-workers. Not only was she blocking out her manager, but she was also blocking out her co-workers’ conversation, though she did hear an occasional word. Words she was aware of from her co-workers’ conversation included “over-spending” and “pizza.”

Sensory awareness occurred in April’s experience nearly 80% of the time. In some samples she was focused on one aspect of her environment while in others she was attending to multiple sensations. Still in other instances April was focused on blocking out stimuli while attending to others. Both her level of skill at sensing and not sensing stimuli combined with the sheer number of samples makes this a very powerful characteristic of April’s experience.

Feelings

Feelings occurred in seven (19%) of April’s sampled experiences. Although feelings were not experienced often by April, when they were experienced they were extremely powerful and salient.

At Sample #21, which was discussed above in the section called “Sensory Awareness”, April was examining the eyes of a “vegetable doll” while seeing the other shoppers in Wal-Mart in her peripheral vision. April was feeling fearful about being in public, and more specifically about the possibility that the people around her were looking at and possibly making negative judgments about her. This feeling manifested itself as a trembling in her body and vigilance of those around her.

At Sample #22, April was looking at the lines for checkout counters. While scanning the lines April was acutely aware of feeling frustrated, which manifested itself
as a pressure in her chest that felt as if something were trying to push through her ribcage to escape. At the same time she was mildly aware of the pain in her finger caused by a splinter she had gotten earlier while looking at Easter baskets.

At Sample #36, April was in a computer lab. She was remembering an interaction she had with an acquaintance. She was in the process of saying, “He hates me” under her breath. At the same time April had a strong feeling in her upper chest just below her neck. This feeling was experienced by April as a “hurt” feeling and manifested itself as a literal “caving in” of her chest. Her shoulders were drawing together and her head was beginning to droop, and this movement was not only a physical action, but also represented the way she was feeling inside. She was also reaching into her hand-bag with her left hand and was aware of the tactile sensation of the items contained therein.

Inner Speech

Six (17%) of April’s inner experiences included inner speech. In Sample #14 April was sitting on the floor rocking back and forth with her hands and arms inside of her sweater. She was reading a textbook and was repeating and emphasizing the word “proportion.” This word was not spoken aloud, but was experienced as if it had been. April was also aware of a tingling feeling in the foot she was sitting upon.

Inner speech also occurred in Sample #29. April had been standing on the floorboard inside a car door, and when she jumped down onto the pavement she rolled her ankle. At the moment of the beep she thought to herself, “I look stupid.”
statement was spoken in April’s inner voice and was spoken as if she were making fun of herself.

A third example of inner speech occurred in Sample #31. April was driving behind a car that had “LAK” as part of the license plate designation. At the moment of the beep she was saying to herself with her inner-voice, “Lack.” This inner speech was part of her preparation to use the word in a variety of sentences, though the beep interrupted this process. At the moment of the beep she was also aware of “acid jazz” music playing on her car stereo.

Images

Images were present in 6 (17%) of April’s sampled moments. At the moment of Sample #23 April’s eyes were directed toward a rack of sunglasses, though she was not attending to them. Instead, she was imagining an earlier interaction with a female shopper whom April had bumped into and apparently annoyed. The image was an accurate re-creation from April’s perspective of what had transpired. She could see the woman from the torso up, and both internally heard and saw her say, “Excuse me” sarcastically.

At Sample #24, April was driving away from Wal-Mart and was following a white Budget Car Rental truck. There was also another truck driving behind her, which had changed into the lane she wanted to be in. At the moment of the beep April was visually attending to the truck in her rear-view mirror. She was feeling frustration over not being able to see in front of the white truck ahead of her and over not being able to change lanes due to the truck that was now behind and slightly to the side of her car. At
the same moment she had an image of the woman she had bumped into earlier in Wal-Mart. This was the same image she had experienced in Sample #23 (above). Though she was somewhat focused on the image, it was now somewhat faded because most of her attention was focused on driving.

Moments before the beep for Sample #35, April’s professor had asked her class, “What do you remember about the 1920s?” At the moment of the beep April saw an animated color image of a flapper wearing a green dress and dancing the Charleston.

Processing Without Awareness

Two (6%) of April’s inner experiences included processing without awareness. In these samples April knew that she had some kind of thought processes working on something, and that once that something was articulated, she would be provided an answer. This type of experience is not an idle waiting for information. On the contrary, April was acutely aware that a process was taking place, but was not aware of the information being processed. The first example of this occurred in Sample #16. April was nearly ready to read a textbook. She had a pencil in her right hand that she was prepared to write notes with. At the moment she was visually scanning her textbook without awareness and had her hand poised to write with awareness. April knew she would be aware of what she was going to write once her eyes found it for her. She did not know that her eyes were looking for something, but at the moment of the beep she did not know what information was being sought.

At Sample #17, April had diverted her eyes from her computer monitor to her fingers on the keyboard. Though her eyes were fixed on her fingers, she was not
attending to them. Instead she was waiting for information about how to restructure a sentence. This knowledge would arrive from an internal source, and she would know what it was once it was in her awareness. Again, April was aware of the processing, but not aware of the information as it was being processed.
CHAPTER 7

ANXIETY PARTICIPANT IDIOGRAPHIC RESULTS: KELLY

Kelly (not her real name) was a 20-year-old hotel employee and non-admitted college freshman. She was selected to participate in the sampling phase after scoring highly (T-score of 75) on the obsessive-compulsive scale of the SCL-90-R during the screening phase. Her baseline BAI score was 9 (no or minimal symptoms), and her BDI-II score was 14 (mild to moderate symptoms).

Kelly completed seven sampling sessions over a period of 29 days. These sessions yielded 40 usable samples. There were four times during sampling when she was either too busy to respond to the beeps or could not record her inner experience promptly following the beep. Kelly and the researchers agreed that these samples should not be used due to the possible lack of clarity in content caused by the latency between the beep and recording of her inner experience. Though most participants choose to write their experiences in a small notebook, Kelly preferred a small micro-cassette recorder.

Kelly's salient characteristics include location of experience occurring in 27 (68%) of her samples; images in 19 (48%) of her samples; musical experience in 17 (43%) samples; inner speech in 15 (38%) samples; feelings in 10 (25%) samples; the doing of remembering in seven (18%) samples; and awareness of processing without
content for two (5%) samples. Each of these salient characteristics will be described and exemplified in the following sections beginning with the most frequently occurring.

The Location of Kelly’s Experience

Kelly experienced most of her sampled awarenesses as occurring in one of four general regions in the interior of her cranium. The first region was the area in the front half of her brain, extending from just behind her temples forward. She referred to this area as her “conscious,” as she seemed to have the most control of the experiences that were perceived there. Kelly could start, stop, suspend, and otherwise manipulate these experiences in a variety of ways. When she described an experience as being “in my conscious,” as she often did, she meant that an experience was perceived as taking place in the front portion inside of her head. It is important to note that Kelly did not mean to imply anything about the functioning of her brain. Often she referred to her conscious as “cottony,” which indicated the malleable and changeable nature of this region of her experience. Thus she used “cotton” purely as a metaphor, and was not describing the existence of white fluffy stuff in her awareness.

Kelly referred to the second region as the “glass slate.” This region was a flat vertical plate located behind her conscious. In other words, the glass slate was perceived to be similar to a vertical sheet of plate glass extending from one side of her head to the other just behind her temples. The glass slate was primarily experienced as an area where images were viewed. These images were experienced as being automatic unless Kelly wanted to manipulate them herself, which she was able to do.
The third region occupied the space from behind the glass slate to the back of her skull. Kelly referred to this region as her "subconscious." The experiences that Kelly had in this region seemed to happen automatically, outside of her direct control. In general, these experiences were not as clearly defined as those in the front (conscious) portion of her head.

The fourth and final region was a thin strip approximately one-half inch wide that extended down the middle of the back of her cranium. Kelly referred to this region as the "emotional strip," and perceived it to be similar in dimension to a strip of VHS videotape: a half inch or so wide and three to four inches long. This strip was experienced as extending vertically down the middle-back of her subconscious.

Throughout the following sections of her other salient characteristics, examples will be given of each of these different locations. Following her salient characteristics the reader will find a more detailed review of the way in which Kelly experienced various characteristics to be located inside of her head.

Images

Kelly's inner experience was rich with images. There were 19 (48%) samples that involved some form of visual image or images. The term image, as used in this work, is a creation or re-creation of a sensory event that can include auditory as well as visual images. Though most of the examples are of visual stimuli, there are exceptions in the form of auditory images.

In Sample #11, Kelly was listening to the "Spirit" CD. Kelly was actively listening to a track called "Welcome to the freak-out frog." In her inner voice in her
conscious she was saying, “Wow, what a weird song this is” while seeing an image on the glass slate of Kermit the frog. This image followed a portion of the song where Kermit’s voice was heard saying, “Hi-ho, this is Kermit the frog here.” The first image was immediately followed by another image (also on the glass slate) of “the Count.” Both images were static, in color, and seemed accurately to recreate scenes she had seen on Sesame Street. Though these images were apprehended as existing simultaneously on the glass slate, they may have been temporally separated. At the same time she was experiencing feelings of excitement in the emotional strip at the back of her brain.

The image in Sample #37 was apprehended as existing in Kelly’s conscious. At the moment of the beep Kelly was cleaning out her hamster’s cage. However, her awareness was focused entirely on a clear image of her then fiancée and an unidentified man. The image was seen as if her fiancée were standing directly ahead of her and to her left, facing her. The other man was standing in front of her and to her right. The men were separated by a couple of feet, and the second man was not articulated due to Kelly’s focus on her fiancée. Though her fiancée was having a conversation with the other man, he was facing her. The other man stated to her fiancée, “Why do you let your wife work?” The response was, “If she wants to work, I am not going to stop her.”

Sample #9 contained both two auditory images in the region of the glass slate as well as a visual image in one of two cotton balls in her conscious (front region of her head). Kelly was sitting on her living room floor amidst bills and statements listening to “Spirit.” At the moment of the beep she was somewhat aware of humming along with the music in her subconscious (the region in the back of her head). In her conscious, Kelly was aware of writing checks. To a lesser degree in her conscious was an image
from her own first-person perspective using a telephone in an attempt to straighten out her credit history. She could see the phone as well as the name “Credit reporters” in a Courier font and the “Target” logo in black and white. At the same time on the glass slate she was hearing two simultaneous auditory experiences: a conversation she had with a Target credit representative as well as what her fiancée had said to her in a recent conversation. These auditory images were located side-by-side (the target conversation was on her right side) and though occurring simultaneously, the conversations did not interfere with one another; both conversations could be heard clearly as if heard independently. Thus, both images were clear and understandable. Furthermore, she was feeling “bad” in the back of the conscious (front) region of her brain (she used the term “the large cotton ball”) about someone else ruining her credit history. She was also feeling “butterflies” in her stomach, a racing heart, and anticipation of seeing her boyfriend later.

The image in Sample #7 occurred in the subconscious (back) of Kelly’s brain. In this sample Kelly was at work changing the volume and station on a radio. She was both focused on this task and aware of it in her conscious (front) region. She was also partially aware of the fact that her shift would be over soon and that she needed to finish tallying her cash drawer before leaving. Her awareness of being close to the end of her workday took the form of an image of herself sitting in a recliner in her living room. This image was seen from her own first-person perspective. In the image everything (television, CDs, stove, etc.) was exactly as she had actually left it. This experience also involved her saying in her inner voice with her own natural vocal characteristics, “I hope Hope gets here so I can go home.” Furthermore, this sample also captured an emotional

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excitement and feeling of being "twitterpatted" in the back of her head since she would soon see her fiancée.

Problem Solving Images

Some of Kelly’s images were part of problem-solving attempts. Problem-solving images were experienced by Kelly in six (15%) of the samples. This phenomenon took the form of a rapid progression of images that seemed to present alternate solutions to solve a problem or presented the sequence she would use when accomplishing a task. The samples involving problem-solving images took many forms. In some of images, Kelly would see an image of the completed task or finished product; in others, the images were seen in reverse order of how they would occur (with the goal image seen first); in others the images were in the order they would normally happen.

At Sample #8 Kelly was riding her bicycle. She had recently moved to a new apartment and had just visited the old apartment to pick up her mail. Now she was carrying the accumulated mail to her new apartment, propping the large box of mail on her left leg while she rode. At the moment of beep she was pressing the handbrake with her right hand, though both the actual riding of the bicycle and the braking were “on auto-pilot” (she was not attending to them). She was thinking about how she was going to get the bike through the gate, how to get off the bike without dumping either the box of mail or the bike, and (at the moment of the beep) which she should take inside first (the bike or the box of mail). This thinking about which to take inside first was a series of visual images, all viewed from Kelly’s own perspective. The first image was of her on the bike holding the box, the next image was of the bike in the yard, next was an
image of the box in the house, followed by an image of the box in the yard, and finally an image of the bike in the house. Thus this image sequence represented the decision to take the bike in first and leave the mail in the yard temporarily. These images took place rapidly one after another in a very short period of time. Kelly also simultaneously had a fear of falling off of her bicycle in her subconscious (back region of her head), though it was not a primary feature in her awareness at the moment of the beep.

Sample #15 took place when Kelly was standing on the transit bus traveling toward the University, which was her destination. She was making this trip partially by bicycle and partially by bus with her bike being transported in a rack on the front of the bus. At the moment of the beep she was aware of holding the upper rail with her left hand in order to maintain her balance. In attempting to determine how she would get her bicycle off of the bus she had a series of “rapid-fire” images on the glass slate starting at the end of the desired sequence and moving backward. The first of these reverse-ordered images was of Kelly riding her bike away from the bus headed toward the University. Next she saw herself taking her bicycle off of the bus’ front rack. Next (and at the moment of the beep) Kelly had just finished with the second image and was preparing an image of herself stepping off of the bus to her right while looking left to say “thank you” to the bus driver.

Images Available for Reference

Two of Kelly’s images were, at the moment of the beep, occupying only a small portion of her awareness, but were apparently being maintained as active existing images because Kelly wanted or needed to refer to them. At Sample #31, Kelly was in the
process of sorting paperwork, separating out letters from her ex-boyfriend so that she could give them back to him. This active sorting was in her subconscious (back portion of her head) and she was paying only a little attention to it. At the same time she was singing along with a CD rendition of Bach’s Christmas Oratorio, a piece she would be performing soon. This singing was a form of practice, making sure she knew which parts were hers to sing. She had an image of the soprano sheet music (Kelly’s part). This image remained on the glass slate while she sang, occupying only a small portion of her experience at the moment of the beep. Throughout her practice, the imagined sheet music was there on the glass slate, available if she needed to reference it but most often occupying only a small portion of her awareness. The center of her awareness was in her conscious (front of her head), attending to the music as she was trying to blend her voice into the choir.

At Sample #17 Kelly was re-hearing a conversation she had just finished having with one of her friends about a car with racing spoilers. While she was re-hearing this conversation, an image of the car was on the glass slate, though she was not specifically attending to it. The image was present for referencing on the glass slate in the event that Kelly had needed to examine certain portions of her previous conversation.

Musical Experience

Seventeen (43%) of Kelly’s samples contained some form of musical experience. These forms included the inner hearing of music in six (15%) samples; internal humming or singing in four (10%) samples; and external humming or singing in seven (18%) samples. Though each of these types of musical experience could occur in
isolation, there were also a number of instances in which two or even all three occurred simultaneously.

There were times when Kelly’s musical experience was simple. At Sample #18, Kelly was examining sewing kits at Walgreen’s. At the moment of the beep she was both visually attending to the sewing kits and experiencing a decision-making process in her conscious (front of her head) about which prices were fair for the perceived quality. Kelly believed there may have been other thoughts taking place in her conscious as well as in her subconscious (back of her head), but she was not attending to these portions of her inner experience and was not certain what the contents of these thoughts were. At the same time she was aware of herself humming aloud along with a song playing over the sound system at Walgreen’s.

In Sample #40, Kelly’s inner experience contained both an inner hearing of music and an inner singing along with the music she was hearing internally. Kelly was sitting at a piano playing from sheet music with her left hand, while swishing mouthwash around in her mouth. She was internally hearing the bass and tenor lines as they “should” be played while comparing them to what she was actually playing. At the same time she was singing the melody in her head. She had never heard the bass and tenor lines played alone before, and was hearing them as if removed from the rest of the piece. Kelly was also visually attending to the sheet music. Furthermore, she was feeling excitement about seeing her fiancée later in the evening. She was unclear as to what form the emotion took in her experience, though she was aware of its presence.

In Sample #36, all three forms (inner hearing of music, internal humming or singing, and external humming or singing) of musical experience were taking place in
Kelly’s inner experience. Kelly was in the process of making dinner and had just wiped off the top of the electric can opener. Kelly was internally hearing Handel’s “Hail the Conquering Hero” as it would be played on the piano. At the same time she was singing along in her head while consciously thinking what the words to the song were. Furthermore, she was humming aloud along with the music she was singing internally. At the same time as she was experiencing the musical aspects of this moment, she was also telling herself in her own inner voice how strange it was that she had sung three different pieces from this oratorio with three different choirs.

Inner Speech

Fifteen (38%) of Kelly’s samples included some form of inner speech in which she spoke in her own naturally inflected voice. Discussion of these samples typically produced hesitant and uncertain quotes about the exact words used in her inner speech. Many individuals who have been sampled are able not only to recall an exact quote in many samples, but they are also able to determine during which word the beep occurred. It is possible that some aspect of the sampling process or the language used to discuss individual samples was inadequate in determining how Kelly’s inner speech occurred.

With that being said, there are two samples that can be called, with a high degree of certainty, true inner speech. In Sample #7 Kelly was changing the volume and radio station of a radio at work, both of which she was aware of in her conscious (front of her head). At the moment of the beep she was thinking about leaving work for the day. This thought process took the form of an image of her living room as seen from her own first person perspective. At the same time she was stating in her inner voice in the same
characteristics as if she had spoken aloud, “I hope Hope gets here so I can go home.” This moment also captured an emotional excitement and feeling of excitement since she would soon see her fiancée.

Sample #35 also captured true inner speech. Prior to the moment of the beep Kelly was in the process of moving clothes from one drawer to another. She had just seen a T-shirt on which was printed, “I can’t because I have rehearsal.” At the moment of the beep she was saying, “At least today anyways” in her inner voice while attending to the T-shirt, though she was uncertain what the speech referred to specifically. She was also humming the soprano line of the “Hallelujah Chorus” aloud to music that was being played in her subconscious (back of her head). At that moment music was playing in the room, but that she was not attending to it.

Sample #41 was characteristic of most of Kelly’s inner speech. At the moment of the beep Kelly was putting on make-up for her hamster “Pattycakes’” funeral. She was putting the make-up on darker than usual due to the funeral, and was internally speaking about this process. She was unable to pinpoint what she was saying, however, as the words were forgotten before she could record the moment.

Feelings

Feelings were present in 10 (25%) of Kelly’s samples. Of these feelings, three (30%) occurred in her emotional strip, three (30%) occurred in the subconscious (back of her head) and not in the emotional strip, two occurred in her body (20%), one (10%) in one of the small cotton balls in her conscious (front of her head), and one (10%) with unclear location.
An emotional-strip feeling occurred in Sample #26. Kelly was in the process of writing church choir information in her day planner. At the moment of the beep she was in the process of writing “patriotic program,” and had just written “pa.” She knew what she was going to write, and was doing so without having accompanying thoughts. Due to the fact that she was nearly done with work for the day, Kelly felt an excitement in the emotion strip at the back of her brain. This feeling was a cognitive emotion that manifested itself as some kind of “knowing” that she would be leaving soon.

In Sample #9, an emotion occurred in one of the small cottony conscious regions in Kelly’s head, in addition to another emotion expressed in her body. While writing checks, hearing two conversations in the area of the glass slate, and seeing an image of the text “Credit Reporters” and “Target” in one of the small cottony areas of her conscious, Kelly had two separate emotions. One was “feeling bad” about her credit history, which was perceived as taking place in the back of the large cotton ball in her front conscious region. The researchers were unable to obtain more clarification on Kelly’s “feeling bad” for this particular sample. At the same moment she was feeling an excited anticipation about seeing her fiancée later. This excited feeling was located in her stomach (“butterflies”) and her heart (which was perceived to be beating faster).

Another of Kelly’s bodily emotions was in Sample #33. In this sample Kelly was seeing an image of her ex-boyfriend from a half-right profile. In this very clear and accurate image she was yelling at him for things he had done while they were dating. Kelly could see her church’s gymnasium in the image, which seemed to be decorated for some kind of awards party. At the same time she was aware of a general frustration that
took the form of tension in her fists and her jaw (which was clenched). Furthermore, though outside of her awareness, she was separating Lisa Frank stickers.

The Doing of Remembering

In seven (18%) of Kelly’s samples she was actively creating an image for the purpose of recalling something that was occurring. This is a phenomenon that will be referred to as the doing of remembering. It was as if Kelly did not believe that she would remember something that was happening if she merely observed it directly. Instead she believed that she needed to create actively an image of an ongoing activity so that the image could be recalled even when the ongoing experience itself could not.

When Kelly was engaged in a conversation with another person, she echoed in her own inner voice the words that were being said by her partner a second or so after they were said, maintaining the pronouns, accents, and tone of the speaker. During breaks in the conversation such as the end of sentences or long pauses, Kelly would internally re-hear what the speaker had said in their voice, maintaining the pitch, timbre, tone, inflection, volume, and speed of said speaker. The following samples will demonstrate various phases of this complex process.

In Sample #16 Kelly was speaking on the telephone with her boyfriend about peacefulness vs. happiness. She was not certain who was speaking at the onset of the beep, though she did state that she was consciously aware of repeating everything that he was saying in her inner voice, and then “recording it” (by re-hearing) in his voice for later recall. The reason she was unable to identify the individual who was speaking at the moment of the beep was due to the fact that she was not only maintaining an external
conversation, but at the same time was also re-speaking and re-hearing the conversation. It is quite likely that this process retarded conversational awareness to some extent. This process was automatic and was located in the conscious (front) of her brain. Thus Kelly felt she needed to repeat a conversation in order to remember it for later reference. It is as if she did not have the confidence that something she had heard would be retained were it not for consciously utilizing this process. Also in her conscious was an awareness of putting her dry cleaning away. Furthermore, in her subconscious (back of her brain) she was thinking about her life and how she had been happy for a long time, but how peace had only been in her life for a couple of months.

Sample #17 is an example of the later part of the doing of remembering process. In this sample Kelly was riding in a car with a friend. They had just finished having a conversation about the spoilers on a car that they had just seen, and how that was “cool” only if the car was used for racing. Kelly had finished re-speaking the conversation in her own voice and at the moment of the beep she was in the process of listening to the conversation again in her head in her own voice but with her friend’s vocal characteristics the way they were at the time of the original conversation. This portion of her experience was located in her conscious (front of her head), and an image of the car with the spoilers was on the glass slate. However, she was not paying attention to the glass-slate image at the moment of the beep.

Sample #12 captured visual cataloging. Kelly was placing bus tokens in a heart-shaped dish while visually noticing a heart shaped basket close by. Not only was she visually attending to these objects, but she was experiencing an exact duplicate image of the scene on the glass slate. Kelly understood this image as being created by her in order
to be stored for future recall as if the original observation itself could not be remembered. At the same time she was saying in her own voice in the cottony portion in her conscious (front of her head), “I should get more things like this.” Furthermore, there may have been something occurring in the back of her brain (what she refers to as her subconscious), but Kelly was not paying enough attention to know the content.

Nonspecific Awareness of Processing

Awareness without processing occurred in two (5%) of Kelly’s samples. This process appears to be some kind of awareness or knowing that something was happening somewhere in her awareness even though what was happening was not clear.

The first occurrence of awareness of processing was in Sample #12. In this sample Kelly was making an image that was an exact duplicate of a heart shaped box and a heart shaped basket she was looking at. At the same moment she was saying in her inner voice, “I should get more things like this.” At the moment of the beep Kelly was also aware that something was being processed in the back of her brain (which she refers to as her subconscious). She was aware of this processing, but was unable to determine the content of this portion of her experience.

The other sample involving awareness without processing can be found in Sample #18. In this sample Kelly was looking at sewing kits in Walgreen’s and humming aloud with music playing on the store radio. There may have been something other than the sewing kits in the front of her head (what she refers to as her conscious), and there may have been some form of experience in the back of her head (what she
refers to as her subconscious), though without trying to attend to them, she did not know the content of these experiences.

Summary

Throughout sampling with Kelly, her inner experiences occurred in four general areas of her head. The samples were discussed at length in order to provide an understanding of Kelly's perceptions of the experiences, including where it seemed the experiences existed in her awareness at the moment of any given beep. The location of Kelly’s experiences will be discussed as perceptual and metaphorical phenomena. Her samples do not include physiological accounts as neither Kelly nor the researchers are qualified or have adequate information regarding her neurological composition or functioning to produce such accounts.

She referred to these areas in her brain as her “conscious,” the “glass slate,” her “subconscious,” and “the emotional strip.” Kelly’s conscious is composed of three balls of cotton in the front of her brain. The first of these cotton balls is the largest and is positioned behind her forehead. The other two cotton balls sit beside one another directly behind the first cotton ball. However, the cotton balls could at times form different numbers and configurations of cotton balls, depending on the nature of any given experience. The inner experiences that Kelly has in her conscious are those things that she has not yet done or that are currently being done. These experiences can be touched, seen, and felt, and can include memories if they are transferred to her conscious to see what would have happened if something were done differently. Collaborative discussions about the nature of the cotton have led to the conclusion that the cotton is a
metaphor used to describe the tangible nature of her experiences. Cotton was used because it is a tangible, malleable, and substantive; whereas clay would be too heavy and hard to mold, marble would not be movable, etc. The location of these experiences, however, is not a metaphor to indicate the amount of attention being paid to these experiences, but rather where some of her experiences seem to occur.

The glass slate is located behind the two smaller cotton balls of her conscious. It is located in front of her ears and runs parallel to the front of her face. Discussions between Kelly and the researchers have revealed that the experiences occurring on the slate are visual in nature, though other experiences can occur in the area of the slate that are not visual. The slate can be divided into two, four, eight, sixteen, or any number of sections needed for her experiences. For example, if Kelly had two images, the images would appear on the glass slate side by side or one above the other. A number of collaborative discussions between Kelly and the researchers indicated that when she experiences an image on the glass slate she sees it as if she were looking about two feet ahead of her eyes and down at nearly a 45-degree angle. Furthermore, speaking of seeing an image as being outside of her head was difficult for Kelly, as she knew that the images were somehow located inside of her cranium.

Located in the back of her brain are Kelly's subconscious and the emotional strip. Lengthy discussions aimed at determining the nature of her subconscious indicate that it is experienced as a gas bubble where some of her inner experiences take place. The emotional strip is a strip of tape that is approximately as wide as VHS tape that hangs down behind her subconscious at the back of her brain. Similar to the cotton in her conscious, the emotional strip is a metaphor to describe the way this part of her
awareness is experienced. Most of the experiences that occur in this part of her brain are emotions that she may not be aware of at any given moment, but that she is aware of when attempting to translate emotional experiences into words for discussion. Though the emotional strip is separate from her subconscious where components of inner experience are concerned, they seem to be co-located.
CHAPTER 8

CONTROL PARTICIPANT IDIOGRAPHIC RESULTS: BRENT

The preceding five chapters have contained idiographic accounts of the anxious participants. Chapters 8 through 10 will contain the idiographic accounts of the control participants. Chapters 11 and 12 will contain the results, nomothetic group comparisons, and a discussion, comparing the findings of the present study to other DES anxiety studies, respectively.

Brent was a 24-year-old upperclassman. He had completed two years at a Western University prior to moving to Las Vegas and was in his first year at the University of Nevada, Las Vegas. Brent was selected to participate as a control participant in the sampling phase after obtaining approximately average scores on each of the SCL-90-R sub-scales of anxiety (T = 40), obsessive-compulsive (T = 52), phobia (T = 47), and depression (T = 49) during the screening phase. His baseline BAI and BDI-II scores were 1 and 0, respectively, which are categorized as no or minimal symptoms. Brent’s participation in the study was voluntary, and he was given both credit for research participation as part of a psychology course requirement and $10 per session for each of his four sampling sessions. Brent was also paid an additional $10 for completing the study.
Brent completed four sampling sessions over a period of 15 days. These sessions yielded 24 usable samples. From these samples, four salient characteristics of Brent's inner experience emerged. Eleven (46%) of his samples contained images; feelings occurred in nine (38%) samples; inner speech occurred in 9 (38%) samples; and self-referent experience occurred in five (21%) samples. Each of these salient characteristics will be described and exemplified in the following sections beginning with the most frequently occurring.

Images

Brent experienced images in 11 (46%) samples. Some of Brent’s images were highly articulated. In Sample #12 Brent had been studying “putting meaning to life” for one of his liberal arts courses, while at the same time wondering what would add meaning to his life. Just before the beep, Brent had thought about giving his girlfriend a glass monkey that he had seen in a department store. At the moment of the beep Brent saw an image of the glass monkey directly in front of him. It appeared to be floating and light was being refracted from the cuts in the crystal against a black background. At the same moment there existed in Brent’s head a neuromuscular excitement, although Brent was not aware of this at the moment of the beep--the feeling of excitement that accompanied this musculature came into focus only by the beep. In that sample, he felt a tenseness in his muscles related to the image that he only became aware of after the moment of the beep.

Sample #9 is an example of an image that had at one time been visually elaborated. Prior to the beep Brent was sitting in the library studying when another
student noisily took off his coat and backpack. Just after taking note of the student, but before the moment of the beep, Brent had an image of a student his roommate had told him about. This individual had been breathing so loud, Brent’s roommate could not concentrate. At the time of the beep, however, the visual aspect of the image was gone and all that remained was the sound of heavy breathing. Brent was angry with the noisy student, but only a small portion of his awareness was focused on this aspect of his anger.

Even though Brent can have highly articulated images or images that are not articulated, some of the images that he experienced were unelaborated in part. An example of a partially unelaborated image occurred in Sample #18. Brent was on the telephone, and had been listening to Julie’s story about a party she had been at. A portion of the story dealt with the fact that she had sat on a couch with two men, and that neither she nor the men were wearing shirts. At the moment of the beep Brent saw Julie sitting on a couch between two males. None of the three were wearing shirts in the image. Brent viewed the image from slightly above and in front of the couch, and noted that the image was in dull color or black and white. In the image, Julie was wearing a brassiere, which was contrasted against her skin, though it did not particularly stand out. The males in the image were articulated enough for Brent to know they were males, though they could have been any males due to the lack of facial definition or other defining characteristics. This image has elaborated components such as his friend Julie and the contrast of her brassiere against her skin. At the same time, the males are not elaborated and could be any males.
From these samples it is clear that Brent is capable of visualizing clearly and constructing elaborate images. Brent has the ability to elaborate images as fits his purposes. If Brent was concerned with the details of an object it would be elaborated in the image. On the other hand, if the image represented undefined or non-specific objects such as the shirtless men sitting on either side of Julie in Sample #18, he could leave an image unelaborated.

Feelings

Nine (38%) of Brent’s samples contained feelings. In seven of these nine samples, Brent was aware of having feelings at the moment of the beep. In the other two samples, it is likely that Brent would not have become aware of the emotional component(s) of his experience were it not for the beep. In essence, the process of examining his inner experience, when cued by the beep, actually brought portions of his experience into awareness. Were it not for the beep, some aspects of his experience would have gone unnoticed, and it is likely that Brent would not know that these aspects existed. In other words, after the beep sounded, Brent determined that he was feeling something, but only was aware of this feeling because the beep caused him to take notice.

In Sample #6 Brent was experiencing feelings at the time of the beep. Before the beep Brent had been making a sandwich and talking to his roommate about spring break. His roommate had told Brent that he was planning on being gone for the entire break. As the beep began to sound, Brent felt a sensation like a release of pressure and a subsequent light feeling in his chest. Relief and a thought about his roommate being
gone over spring break accompanied this feeling. Brent was unable to elaborate on the
type of experience the thought was, though it was in his awareness at the moment of the
beep.

Another example of feelings occurred in Sample #4. Brent was in class, his
professor was going over test questions, and Brent was attempting to determine which
order the questions should be answered in. At the moment of the beep Brent thought
that the professor might be paying more attention to him than usual due to the beeper
ear-piece. This resulted in Brent's feeling a nervous bodily discomfort. Furthermore, a
portion of his awareness involved considering the length of the "Zimmerman study"
(research that the professor had discussed in lecture).

In Sample #10 there was a feeling process ongoing in Brent's body that he was
not aware of at the beep. Brent was in class trying to listen to his professor's lecture.
There were two students sitting behind Brent making it difficult for him to attend to the
professor. At the moment of the beep Brent saw an image of himself from behind, as if
viewed from a couple of feet behind himself. In the image, Brent turns to his left and
says, "Shut up!" to the noisy individuals. Brent could not see the individuals for whom
the message was intended, though he knew they were in the direction the imaged Brent
was facing. Accompanying this image was an irritation or aggravation in his body,
which took the form of tenseness in his muscles. This aggravated tenseness was in fact
present in his body at the moment of the beep, although it was not in his awareness until
brought into focus by the beep itself. Thus the muscular reaction was present at the
moment of the beep, but its affective awareness was not present until after the moment
of the beep.
Inner Speech

Inner Speech occurred in 9 (38%) of Brent’s samples. In each of Brent’s samples containing inner speech, the characteristics of this experience were the same as they would have been if he would have spoken aloud. The tone, inflection, pitch, timbre, frequency, etc. are the same as if Brent were speaking aloud, though the speech is experienced internally, and the words stated are stated to himself.

In Sample #13 Brent was walking on a sidewalk past a store. In the window of the store was a sign that read “value.” At the moment of the beep Brent was saying “Not a value” in his inner voice. It was as if he were stating “Not a value” to someone else, though this audience was not defined. The beep came on the word “value.” Brent was visually attending to the sidewalk with a portion of his awareness.

Inner speech also occurred in Sample #20. The beep came as Brent was walking into a University computer lab where his friend Anne worked. At the moment of the beep he was seeing a static image of his right profile. The image had a dark background and although he knew he was speaking to Anne in the image, she was not present. At the same time Brent was saying jokingly in his inner voice, “Could I get some help?”

A final example is Sample #2. Brent was in the restroom throwing away a paper towel. Prior to his trip to the restroom, Brent had been studying social norms and social acceptance. At the moment of the beep he was considering the acceptance of individuals who do not conform to social norms and feeling disgusted toward these individuals. At the same time he was considering his acceptance and stated the query, “Am I accepted?” in his inner voice to himself.
Self-Referent Experience

Brent related external events directly to himself in a focused and concentrated manner in five (21%) samples. Three of these samples involved Brent's experiencing some form of self-deprecating experience. Two of the samples are self-deprecating inner speech while another is a self-deprecating feeling accompanying inner speech. The other two appear to be more thoughtful experiences related to information that Brent was considering prior to the moment of the beep.

An example of the more self-deprecating referent experience was Sample #19. Brent was riding his bicycle to school. At the moment of the beep he was in the process of saying in his inner voice, in a slighting angry tone, "I just need a new crank system." This statement was not simply being said, but was accompanied by anger in the form of tenseness in his muscles. The anger was directed at himself for not fixing or replacing the crank system. Brent had problems with his crank system on numerous occasions, and was upset with himself for not taking care of it sooner.

Sample #23 is a similar self-referent experience. Brent had just taken a swing on a computer golf game at the moment of the beep. He was in the process of saying, "that was terrible" in his inner voice (the beep came on "terrible"). At the same moment Brent was aware of feeling disappointed in himself, which took the form of a general bad feeling manifested as muscle tension in his chest. Brent only became aware of this feeling when the beep occurred, and may not have been aware of it were it not for the beep.

An example of the thoughtful self-referent experience can be seen in Sample #12, the sample that included the image of the crystal monkey described above in the
“Images” section. In this sample Brent was studying “putting meaning to life.” He related the material he was studying to himself by attempting to determine what would put meaning in his life. Brent had considered buying a crystal monkey for his girlfriend, and thought that following through and buying the monkey would add meaning to his life. Sample #2 also demonstrates this same type of experience. Brent had been studying social norms and acceptance, and then went into the restroom. At the moment of the beep he was in the restroom throwing away a paper towel. Brent was examining his own position according to social norms and acceptance. At the moment of the beep he was asking himself in his inner speech, “Am I accepted?” This experience was the way in which Brent was considering his own societal acceptance. At that same moment, part of his inner experience was focused on the acceptance of other people. This portion of Brent’s experience was a general feeling of disgust and lack of acceptance directed toward individuals who do not wash their hands after using the toilet or throw trash on the ground.
CHAPTER 9

CONTROL PARTICIPANT IDIOGRAPHIC RESULTS: BILL

Bill (not his real name) was a 21-year-old senior at the University of Nevada, Las Vegas. He had transferred to UNLV after completing a year at Buffalo State College. Bill was selected to participate as a control participant in the sampling phase after obtaining approximately average scores on each of the SCL-90-R sub-scales of anxiety (T = 48), obsessive-compulsive (T = 54), phobia (T = 47), and depression (T = 54) during the screening phase. His baseline BAI and BDI-II scores were 6 and 8, respectively, which are categorized as no or minimal symptoms. Bill’s participation in the study was voluntary, and he was given both credit for research participation as part of a psychology course requirement and $10 per session for each of his five sampling sessions. Bill was also paid an additional $10 for completing the study.

Bill completed five sampling sessions over a period of 12 days. These sessions yielded 30 usable samples. From these samples, four salient characteristics of Bill’s experience emerged. Fourteen (47%) of his samples contained inner speech; feelings occurred in 13 (43%) samples; images occurred in seven (23%) samples; and sensory awareness occurred in five (17%) samples. Each of these salient characteristics will be described and exemplified in the following sections beginning with the most frequently occurring.
Inner Speech

Fourteen (47%) of Bill’s samples contained inner speech. In these samples, Bill’s inner speech characteristics (inflection, pitch, timbre, etc.) were experienced to be identical to what they would have been had he spoken aloud. Nonetheless, the speech was experienced internally as if he were speaking to himself.

In Sample #11 Bill was watching a television commercial for the “Eco Challenge.” At the moment of the beep he was visually attending to a television portrayal of one of the teams climbing a sheer rock face. He was also aware of stating, “That has to be tough” in his inner voice. This comment was in his own naturally inflected voice, and was understood by Bill to mean that the activity he was viewing must be difficult both mentally and physically.

Inner speech also occurred in Sample #23. Bill had begun typing a cover letter for a job application. At the moment of the beep Bill was in the process of saying, “Please accept this letter as a form of request for this position” in his inner voice. The characteristics of this inner speech were the same as if he would have spoken aloud. These words were transmitted through his fingers and onto the typewriter keys. At the same moment, Bill was also experiencing a positive physical energy boost that may have been akin to an “adrenaline rush” (a feeling).

Another example of inner speech occurred in Sample #28. One of Bill’s coworkers had just called to him. At the moment of the beep, Bill was in the process of speaking in his inner voice saying, “What?” Though he was in the process of physically directing his attention toward his co-worker, he was aware of nothing other than the inner speech.
Feelings

Thirteen (43%) of Bill’s samples contained feelings. The samples that contained feelings could loosely be classified as low-level positive feelings and more powerful negative feelings. Though nearly half of the samples are positive and half negative, Bill was much more aware of negative somatic accompaniments to his negative emotions.

Aside from the positive feeling Bill experienced while he was writing a cover letter (Sample #23 above), the strongest example of a positive feeling was in Sample #22. Bill was watching a computer monitor waiting for an email to appear. At the moment of the beep he was experiencing happiness and excitement about an upcoming visit from a friend. These feelings took the form of some mental process and could not be elaborated further.

By way of contrast, Bill’s most powerful negative feeling occurred in Sample #13. Bill’s professor had just given an exam back to Bill’s class. At the moment of the beep he was feeling “extremely pissed,” which took the form of a pounding in his heart, a physical tenseness in his entire body, a sharp pain between and behind his eyes, and an intense pressure located primarily in his chest as if he were going to explode. This was accompanied by inner speech in an angry tone stating, “I wish I could do it over again!” This was Bill’s most powerful and vivid example of a negative feeling. He stated during the sampling meeting that it was the most angry he had been in “…a long time.”

Another example of a negative feeling occurred in Sample #16. At the moment of the beep Bill was saying, “Man, this day is never going to end!” in his inner voice. The statement was said as if he were tired and was accompanied by a feeling of mental
frustration that was best described as a desire to block out all sensory information, which he was not doing at that specific moment.

Images

Seven (23%) of Bill’s samples contained images. These images seemed to be very clear and it seemed to Bill that he played an active role in the construction of many of them. That is not to say all participants aren’t active in the creation of images, but rather that Bill’s images are put together piece by piece until a complete image is constructed.

For example, in Sample #20 Bill had just finished watching the news on television about a car accident in Utah. At the moment of the beep he saw an image somewhere in his head that was composed of video clips he had seen on the news as well as events he had reconstructed based on various verbal accounts of the accident. He was imaginally compiling, taking different accounts, constructing, and reconstructing the image as the latest account was received. This image was a clear colored full-motion video image seen from a perspective slightly above the accident. Furthermore, he was still listening to the television, though he was no aware of what the new news clip was about.

In Sample #7, Bill was trying to determine where he was going to park at the Mayor’s office. At the moment of the beep, he was seeing an image of 4th street. This seemed to be an accurate color recreation of 4th street except there were no cars parked in the image, and the actual street would have had many parked cars. He was focused on where the parking metered spaces and where the road was in the image.
In Sample #26 Bill was trying to remember the name of someone who had sent a form to his place of employment. At the moment of the beep he could see a clear image of the form, though the name in the name box was blurry. He was going through the alphabet one letter at a time trying to recreate the name, though after the beep Bill was unable to determine if this process was part of the image or not. He also felt that if the beep would not have interrupted the process, when the name “came to him” it would appear in the image.

Sensory Awareness

Five (17%) of Bill’s samples contained sensory awareness. Bill’s sensory awareness samples were approximately equal parts somatic (headaches, hunger, fatigue), visual, and auditory awareness.

Sample #30 was a typical example of somatic sensory awareness. Bill had opened a fax cover document on a computer and was going to type the name “Jeff.” He was saying the name “Jeff” in his inner voice at the moment of the beep. He was also aware of headache pain in the center of his head.

Sample #19 was one of Bill’s visual sensory awareness samples (another is the Eco Challenge sample above (Sample #11)). At the moment of the beep Bill was visually attending to a loaf of bread in an attempt to determine how fresh it was (though this evaluative process was not in his awareness). He was also hearing one verse of a song that had been repeating over and over in his head. The song was not accompanied by instrumentation, though it was the last song he had heard in his truck and did have
instrumentation when it was heard being played externally to himself. This hearing experience would not be considered sensory awareness, but instead inner hearing.

None of Bill's samples were "pure sensory awareness" experiences. The issue of "pure sensory awareness" will be addressed in Chapter 12.
Jerrí (not her real name) was an 18-year-old undergraduate at the University of Nevada, Las Vegas. She was selected to participate as a control participant in the sampling phase after obtaining an average total symptom score and approximately average scores on each of the SCL-90-R sub-scales of anxiety (T = 49), obsessive-compulsive (T = 52), phobia (T = 44), and depression (T = 48) during the screening phase. Her baseline BDI-II score was 2, which is categorized as no or minimal symptoms. There was no baseline BAI data available for Jerrí because of an administrative error. Jerrí’s participation in the study was voluntary, and she was given both credit for research participation as part of a psychology course requirement and $10 per session for each of her four sampling sessions. Jerrí was also paid an additional $10 for completing the study.

Jerrí completed four sampling sessions over a period of five days. These sessions yielded 24 usable samples. From these samples, five salient characteristics of Jerrí’s experience emerged. Ten (42%) of her samples contained images; feelings occurred in 10 (42%) samples; sensory awareness occurred in 10 (42%) samples; inner speech occurred in five (21%) samples; and unsymbolized thinking occurred in three
(13%) samples. Each of these salient characteristics will be described and exemplified in the following sections beginning with the most frequently occurring.

Images

Ten (42%) of Jerri’s samples contained images. Though Jerri had images that were replicas of things that she had seen in the past (e.g. the cover of a VHS cassette or a photograph), a number of her images were more fanciful or imaginative. One such example occurred in Sample #8. Jerri was driving in her car with the radio turned up "loud." She was singing along with a song that was playing on her car stereo, for which she had never seen a music video. At the moment of the beep Jerri had a color motion image in her awareness. The image was actively and literally being created by Jerri from the song’s lyrics. In the image an African American man was singing to an African American woman while making overly dramatic gestures with his hands and arms. The woman in the image was batting her eyelashes and responding to his vocalizations in an overly dramatic way by rocking her shoulders left to right and by clasping her hands together while shying to one side.

In Sample #10 Jerri was sitting in one of her classes listening to a lecture on the death penalty. At the moment of the beep she had a repulsed feeling in her body that manifested itself as “chills” and a grimace on her face. At the same time she saw a static image of an execution chamber, as if viewed from within the chamber itself. She could see a man strapped to a chair, an executioner facing a wall preparing something for the execution, and the viewing window. On the other side of the window she could see a reporter in a 1920’s style press hat with a powder-flash camera.
In Sample #20 Jerri was sitting at her desk trying to type a paper, but she was having problems concentrating. At the moment of the beep she saw a still image of a cartoon-like woman pulling her hair straight out to either side with both hands. The woman in the image also had clenched teeth. Furthermore, Jerri was aware of tightness in her legs and feet and the way she was sitting on the edge of her chair and bouncing her legs.

Feelings

There were feelings in 10 (42%) of Jerri’s samples. In Sample #4 Jerri was in a classroom where she had just received positive feedback about the introduction to a paper she had written. At the moment of the beep Jerri was feeling “on top of the world” which was manifested as a racing feeling in her chest and a thought that she was ready to do her paper. This thought was not an image and was not symbolized by specific words.

In Sample #21 Jerri was having a series of images involving her roommate and her roommate’s boyfriend driving around while Jerri waited at home for them. These images were negative in nature due to the fact that they were long overdue, and she had been waiting for them. At the moment of the beep she saw her laughing roommate from behind her boyfriend’s turned head as if she were looking through the driver’s side window (the boyfriend was looking at Jerri’s roommate in the image). Jerri was also aware of a squeezing feeling in her chest as if pressure were being held in. She reported that this feeling was a “rage of anger.”

In Sample #23 Jerri had just finished telling her roommate’s boyfriend that she had borrowed a baseball glove. Though they had been planning on going to a movie,
Jem agreed to the suggestion that they go to batting cages instead of the movies. At the moment of the beep she was disappointed (which was a frowning of her facial muscles) about missing the movie, but she was feeling excited about going to the batting cages, though the location of this excitement was unclear.

Sensory Awareness

Sensory awareness occurred in 10 (42%) of Jerri’s samples. Though a majority of Jerri’s sensory awareness experiences involved attending to the qualities of external stimuli, she also had samples that were limited to somatic experiences that she was aware of.

One of her somatic sensory awareness experiences occurred in Sample #6. Jerri was just walking out of a classroom with her backpack over one shoulder. At the moment of the beep she was aware of an empty feeling in her stomach. She was also viewing an image from the first person perspective of her hands holding the sandwich she had brought to eat for lunch. The only difference between the image sandwich and the real sandwich was that the sandwich in the image was much larger than the real one.

In Sample #13 Jerri was attending to the qualities of a painting she was looking at in a specialty store. At the moment of the beep Jerri was in the process of trying to make her roommate aware of the painting. This attempted communication took the form of expressing shock with her facial expression. Jerri was also still focused on the “adult” aspects of the painting, which she was unwilling to discuss during the sampling meeting.

In Sample #24 Jerri was at the batting cage waiting for a ball to come through the pitching machine toward her. At the moment of the beep she was visually focused on
the ball, tracking it as it left the machine as well as saying to herself in inner speech, “Watch the ball.”

None of Jerri’s samples were “pure sensory awareness” experiences. The issue of “pure sensory awareness” will be addressed in the “Discussion” of this work.

**Inner Speech**

Five (21%) of Jerri’s samples contained inner speech. In each of her samples containing inner speech, the characteristics of this experience were the same as they would have been had she spoken aloud. The tone, inflection, pitch, timbre, frequency, etc. are the same as if Jerri was speaking aloud, though the speech is experienced internally and the words stated are stated to herself.

In Sample #9 Jerri had just dropped the beeper device on the floor during a lecture. At the moment of the beep she had stated to herself in her inner voice that people “probably are thinking I am listening to the radio.” She also made an apologetic gesture toward the instructor, though she may not have been aware of it until the beeper led her to examine her experience.

In Sample #12 Jerri was listening to a classmate give a talk about Marilyn Monroe. The speaker had discussed the fact that Marilyn had a speech impediment, and that one of the reasons she spoke in a slow and sexy manner was to avoid stuttering. At the moment of the beep Jerri saw a clear, in-motion image of a television commercial in which Marilyn Monroe was singing “Happy Birthday, Mr. President.” She was also asking herself in her inner voice, “What if she would have stuttered?” Though her
classmate was still talking, Jerri did not believe she was attending to his talk at the moment of the beep.

Unsymbolized Thinking

Three (13%) of Jerri’s samples contained unsymbolized thinking. Samples taken from the first sampling session with participants are viewed as training by the researchers. The first sampling session is the first time that the researchers and any given participant are able to discuss inner experience, and typically participants are reluctant or uncertain about disclosing experiences that they cannot readily explain. For this reason, samples from the first day of sampling are not used as exemplars unless the sample(s) are very clear and tend to be supported by similar types of experience in later sampling sessions. Even though Jerri had five samples containing unsymbolized thinking over the course of four sampling sessions, only one of them came from a session after the first session. It is therefore possible that Jerri was not used to wearing the beeping device and reporting accurately on her experience in that first day, therefore inadequately discriminated the experiences of unsymbolized thinking from, for example, inner speech. For this reason, only one example will be given for unsymbolized thinking, namely the sample that came from the third sampling session.

In Sample #16 Jerri was on her way home from a gas station where she had purchased a cappuccino. At the moment of the beep she had just walked out of the gas station and was thinking to herself that once the cappuccino cooled down, she could drink it. This thinking about the cappuccino cooling down was not represented with words, images, or any other type of experience, but rather it was a knowing-in-
awareness that she would be able to drink her beverage once it cooled down. At the same time she was feeling anxious about being able to drink the cappuccino in order to warm up. This suspenseful anticipation may have been augmented by the smell of the beverage, though she only became aware of this when the beep itself brought her experience into focus. Furthermore, she could feel the warmth of the cappuccino on her hands, though again, only after the beep made her aware of her experience.
CHAPTER 11

ACROSS-PARTICIPANT RESULTS

Chapter 3 through Chapter 7 discussed the idiographic accounts of anxious participants. Chapter 8 through Chapter 11 contained the idiographic accounts of control participants. This chapter will discuss across-participant nomothetic results.

Preceding chapters have viewed the richly complex inner experience of eight individuals. Those individual participant chapters discussed participants idiographically; now group differences will be discussed. Table 1 provides a summary of the percentage of the nine common aspects of experience for each of the participants. They include Inner Speech, Images, Unsymbolized Thinking, Inner Hearing, Feeling, Sensory Awareness, Just Doing, Just Doing, Multiple Awareness, and Feeling Fact of Body. Table 1 also contains the percentage of samples in which no aspect of inner awareness was present at the moment of the beep ("Nothing" samples) and the number of samples that were not used for each participant.

There are three differences between anxious individuals and controls from this table that bear discussion: unsymbolized thinking, sensory awareness, and nothing.

First, the anxious individuals in this study experienced more unsymbolized thinking than did the control participants. Anxious individuals each reported having experienced unsymbolized thinking in a at least 15 percent of their samples, whereas all
control participants experienced unsymbolized thinking in at most 13% of their samples. Two participants in the anxiety group experience unsymbolized thinking very frequently: Amy experienced unsymbolized thought in nearly one-third of her samples, while Stacy experienced unsymbolized thought in nearly one-half of her samples.

Although the higher frequency of unsymbolized thinking in anxious participants is of interest in its own right, there is also an important difference in the way in which individual participants experience unsymbolized thinking. Some individuals, both control and anxious, experienced unsymbolized thought as "just knowing" something without any form of symbolic representation. Some participants (again in both groups) experienced unsymbolized thought as a wondering or questioning without words, that could be put into words if asked to do so. However, for the two anxious individuals who experienced a high proportion of sensory awareness, unsymbolized thinking was experienced almost exclusively in direct connection to a present or upcoming sensory awareness. The most striking examples come from April and include such experiences as knowing that she was looking for a pain reaction in a co-worker who was complaining of physical ailment, knowing that she was experiencing vibrations in her hands from the bass in her neighbor’s music, knowing that the aftertaste left in her mouth from chocolate milk was unsavory, knowing that people in the store might be looking at her while attempting to visually scan her periphery, and knowing that she was going to touch a door-knob.

Anxious individuals experienced sensory awareness in more samples overall than did controls. There was some overlap between the anxious and control groups when examining sensory awareness, however. One control participant experienced sensory
awareness in 42 percent of her samples, which appears to be more characteristic of the anxious group overall. Further, one anxious individual experienced sensory awareness in only 15 percent of her samples, which is comparable to two of the control participants.

The higher frequency of sensory awareness in anxious participants is of interest in its own right, but there is also an important difference in the way in which individual participants experience sensory awareness. Anxious individuals were more dominated by sensory awareness, whereas non-anxious individuals experienced sensory awareness along with other forms of experience. To demonstrate, only those phenomena experienced in 33 percent or more samples were included in Table 2. Any percentage lower than 33 percent is not included in Table 2 to make the high frequency experiences stand out to the reader. Rows representing types of experience have also been removed from Table 2 if no participant experienced it 33 percent of the time or more. Four participants (Stacy, Kelly, Brent, and Jerri) had three types of experiences after less frequent experiences were removed, while one participant (Bill) had two. Three of the anxious individuals (Rick, Amy, and April) did not have more than one type of high frequency experience when using 33 percent as the cutoff, and, in each case, the high frequency experience was sensory awareness. Raising and lowering the cutoff does not alter this pattern of observations. If the cutoff is lowered below 30 these participants begin to gain data in the cells of other types of experience, while raising the cutoff eventually begins to drop all of the data out of these participants’ cells.

A further examination into the domination of sensory awareness in the anxious participants is seen by considering “pure sensory awareness,” in which a sample is called “pure sensory awareness” if only sensory awareness, but no other form of inner
experience, is experienced. Table 3 lists the percentage of samples containing sensory awareness for each individual. Anxious participants experienced “pure sensory awareness” from two times (Rick and Kelly) to 12 times (April) compared to controls who did not experience “pure sensory awareness” in any of their sampled moments.

Samples in which the participants reported experiencing nothing occurred more frequently overall for anxious individuals when compared to controls. Only one anxious individual reported having zero experiences with nothing occurring, and the remainder of the anxious individuals experienced nothing in at least four percent of their samples. Rick reported that there was nothing in his awareness in one quarter of his samples. Two control individuals reported experiencing nothing in zero of their samples while one reported experiencing nothing in three percent of his samples.

Rick’s samples were not only high in “Nothing” experiences, but he was also a participant who experienced unsymbolized thinking in direct connection to sensory awareness, and he was also one of the anxious individuals who experienced a substantial amount of sensory awareness with little variability in the types of experience. Sixty-seven percent of Rick’s samples contained either “pure sensory awareness” or nothing, indicating that he could typically be found attending to sensory stimuli or not experiencing anything whatsoever.

Comparisons between anxious individuals and controls were also done using the Beck Depression Inventory - II (BDI-II), and the Beck Anxiety Inventory BAI. This data can be seen in Table 4.

The BAI and BDI-II scores from time one (before sampling began) to time two (after sampling was completed) in Table 4 appear to demonstrate an improvement in
anxious participants' self-reported anxiety and affective symptoms from before sampling to after sampling in nearly all anxious participants. The largest decrease in self reported anxiety symptoms from time one to time two can be seen with Rick's decrease from a BAI score of 20 to a BAI score of 10. Rick also demonstrated the largest decrease in depressive symptoms from time one to time two, with BDI-II scores decreasing from 19 to 12. There are exceptions to this overall decrease in self reported symptoms however; Stacy had a 10 point increase in BAI scores from time one to time two, and April's BAI score remained unchanged from time one to time two. There was little change in BAI and BDI-II scores from time one to time two for controls. A BAI comparison for Jerri is not possible, however, since there is no time one BAI score available for her.

Table 5 presents the correlations of the nine commonly experienced categories used in this study (inner speech (IS), image (I), unsymbolized thinking (U), inner hearing (IH), feeling (F), sensory awareness (SA), just doing (JD), multiple awareness (M), feeling fact of body (FFoB)), and samples in which participants were aware of nothing at the moment of the beep (None). The matrix was calculated across participants using all 267 samples. 

Since the matrix displays the correlations of independent constructs, even significant correlations should be small. With this being stated, there are five significant correlations that are worthy of mention. Feeling and unsymbolized thinking are significantly positively correlated. There is a significant positive correlation between multiple awareness and images, multiple awareness and unsymbolized thinking, and multiple awareness and feeling. The last useful significant correlations in the matrix are
the negative correlations between sensory awareness and inner speech and between sensory awareness and images.
CHAPTER 12

DISCUSSION

It is important to make three points at the onset of a discussion of Descriptive Experience Sampling (DES) and anxiety. First, acquiring a large sample is very time intensive. One of the benefits to using DES over the Experience Sampling Method (ESM), as well as other methods that use questionnaire data, is the amount of detail that is gathered on the experience of any given participant. The time required to sample with each participant could be decreased significantly, and sample sizes could therefore be increased dramatically, if the researcher were not interested in the depth and breadth that can be found in human experience.

Second, the importance of this study is to continue to add to the knowledge base of the descriptive experience of individuals, both anxious and not. In doing so, the data observed in previous chapters is organized as far as is convenient using the categories set forth in the Descriptive Experience Sampling Manual of Terminology (Hurlburt & Heavey, 1999), though attempts were made to discuss individual participants in such a way as to emphasize their uniqueness. Future DES studies with larger samples may use traditional statistical methods and more classification. However, it must be recognized that simply stating that participants in group X have a significantly higher proportion of experience type A than do participants in group Y can strip away the idiographic nature
of the samples collected. Every attempt has been made to keep individual sampled moments and participants in mind when examining group differences.

Third, the current study is one of three preliminary DES investigations into the inner experience of anxiety (Hebert, 1991; Hugelshofer, 1997; Hurlburt, 1993). As such, there were no formal hypotheses, predictions, or expectations as to what the inner experience of anxious individuals would be like. The researchers went into this study with open minds and a true curiosity and interest in the experience of those who participated in the research.

Sensory Awareness in Anxiety

The anxious individuals sampled for this study varied dramatically in their inner experience. Rick experienced either nothing or focused sensory awareness in nearly three-quarters of his samples, and experienced self-criticism in a number of other samples. Stacy seemed to experience the world almost exclusively through her emotions. She experienced feelings in well over half of her samples, and sometimes here feelings were exceptionally intense, even when compared to those of other anxious participants. Amy’s experiences were quite varied. However, she did have a fairly high frequency of samples in which she was doing something automatically without thought (Just Doing), in which she was not aware of any inner experience (Nothing), and in which sensory awareness was the only aspect of her inner experience (“Pure Sensory Awareness”). April sensed her way through the world. Over three-quarters of her experiences involved an intense sensory focus on, or an expenditure of energy to avoid experiencing, some external sensory stimuli. Kelly was acutely aware of the location of
her experiences. Sampled moments frequently included a detailed description of where experiences seemed to be located inside of her head. Chapter 7 has devoted a number of pages to the clarification of these locations, but for sake of review there was a “cottony” conscious part inside her head (behind the forehead), a “glass slate” behind the cottony area used primarily to view images, a gaseous unconscious area behind the glass slate, and a small emotional strip at the back of her unconscious (along the back, and inside of, her skull) for feelings. Kelly also frequently experienced images in reverse order for problem solving and created images (both visual and auditory) to aid in later recall.

Though the experiences that are characteristic of these anxious individuals seem to be so different that little room would be left for similarity, there are some shared features of their experiences. Consider the frequently occurring types of experience that emerged over the course of sampling the anxious participants (Table 2). The inner experience of Rick, Stacy, Amy, and April frequently involved sensory awareness. For Rick, Amy, and April, sensory awareness was the only frequently occurring aspect of their experience. This fact stands in stark contrast to the frequently occurring experiences of the control participants. Jerri was the only non-anxious individual who experienced sensory awareness frequently, and even then she also frequently experienced Images and Feeling.

All anxious individuals differ in one aspect of sensory awareness when compared to control participants, namely in the presence of “pure sensory awareness.”

Frequencies of samples that contain only sensory awareness and no other aspect of inner experience, range from two (Rick and Kelly) to 12 (April) for anxious participants.
Controls, on the other hand, experience no pure sensory awareness—no sensations in isolation from other types of experience.

Clearly the size of this sample prevents any definitive statements about the relationship between sensory awareness and anxiety, but the current findings may be a stepping-off point for further investigations into this issue. Even if there is a connection between anxiety and sensory awareness, there is no telling, based on this study, whether experiencing the world through an intense focus on sensory stimuli leads to anxiety, whether anxiety somehow causes one to focus on sensory stimuli, or if focused attention on sensory stimuli is an aspect of psychological distress, which includes anxiety.

A Comparison of Studies

Hebert (1991) used the DES method to examine the inner experience of five anxious individuals and three control participants. The anxious individuals experienced a variety of anxiety symptoms, ranging from test anxiety to post-traumatic stress, panic attacks, and agoraphobia. Whereas there were differences in the experience of her anxious participants, there were a number of similarities as well. The anxious participants used in Hebert's study had fewer samples containing feelings when compared to controls, and when they did experience emotion, these experiences were typically negative and difficult to describe during sampling meetings.

These same participants also experienced "indeterminate" images at a higher frequency than did controls. By way of review, indeterminate images are less clear, lacking color, poorly defined, and often static in nature. The "doing of hearing" (actively focused on paying attention to listening) and the "happening of speaking"
(speaking aloud without planning on doing so), inner speech, unsymbolized thinking, and criticalness of self and others were also more frequently occurring for anxious individuals than for controls.

Hebert also found that anxious individuals were more likely to identify experiences as taking place in specific areas within the head. She noted that this did not indicate the experiences were actually taking place in these locations, but rather that they were perceived as being located in these locations.

The current study found three of the same differences between anxious individuals and controls. The anxious participants experienced unsymbolized thinking more frequently than did controls. Stacy, one of the anxious participants, experienced unsymbolized thinking in nearly one-half of her samples. The other anxious participants experienced unsymbolized thought less frequently. Nonetheless, the lowest frequency for anxious participants was 15 percent of the time, compared to the highest control frequency of 13 percent.

Similar to Hebert's study, criticalness of self and others was determined to be a salient characteristic of one of the anxious participants in the current study. This does not mean that being critical was experienced only by one anxious participant, but instead that it was only a recurring or salient aspect of experience for one participant.

A final similarity between Hebert's findings and those of the present study involved the location of experience. Though all of the participants in the current study had some awareness about the location of experience, both in the head and in the body, Kelly clearly stood out as a participant who was aware of the location of her experience in her head. Chapter Seven discussed at length the "cottony" areas of her conscious, her
"glass slate" that was primarily used for viewing and manipulating imagery, her gaseous "subconscious," and the emotional strip at the back (and on the inside of) her skull.

There were four findings in Hebert’s study that were not supported in the current work. Participants in this study did not experience feelings less frequently than controls. Stacy’s experience in the world was primarily that of emotional experience; feelings occurred in 60 percent of her samples. Some of her feelings were exceptionally strong and vivid, even when compared to all of the other participants in this study. It should be noted, however, that the other anxious participants who sampled for this study experienced feelings at a lower frequency than did any of the controls. Were it not for Stacy, this study would have had similar findings to those of Hebert.

Hebert also discussed the relative lack of clarity, color, definition, and motion in many of the images sampled from her anxious participants. This finding was not supported in the current study as the frequency of sampled imagery ranged from four percent in Rick’s samples to 48 percent in Kelly’s samples, both of whom were anxious participants. The images varied in clarity, color, definition, and motion across participants. Neither group seemed to experience images more or less frequently, and there were no substantial qualitative differences between the images of the groups.

The “doing of hearing” and “happening of speaking” phenomenon discussed by Hebert as being common to her anxious participants in her study was not supported in the current study. It also does not appear that this study confirms her finding that anxious individuals experience inner speech with a higher frequency than do controls. It is difficult to say why these findings were not confirmed. It is possible that if a different sample were collected, anxious individuals may have been found to share these same
characteristics. As was the case with sampling Stacy and her feelings, her inclusion in this study altered the results, this may be an artifact of having a small sample.

Hugelshofer (1997) examined the inner experience of three individuals suffering from obsessive-compulsive symptoms and one control. Hugelshofer found that her obsessive-compulsive participants experienced unsymbolized thinking and feelings more frequently than did her control participant. She did state that the feelings were sometimes difficult for the obsessive-compulsive participants to describe, more-so when they were experienced as “mental” rather than physical. Hugelshofer noted that 29% of her obsessive-compulsive participants’ experiences were perceived as being located in their heads. Finally, she described the clear and vivid imagery that was commonplace in two of her obsessive-compulsive participants and completely absent in the third participant.

There were four similarities between the current findings and those of Hugelshofer. Unsymbolized thinking occurred with a higher frequency for anxious individuals than did controls. This finding was discussed earlier in this section. It should be noted that Hebert also found higher unsymbolized thought in anxious individuals than controls.

Feeling was found to be a high frequency occurrence for one anxious individual in the current study. This finding was also discussed earlier in this section. It should be noted that while feelings were found to be more common in Hugelshofer’s obsessive-compulsive participants, Hebert found them to be less frequent with her anxious participants. Again, if Stacy would not have participated in the current study, our
findings would be similar to those of Hebert. The differences in findings among studies could be due to the small samples used.

Hugelshofer found that obsessive-compulsive participants perceived their experiences to be located in their heads in 29 percent of samples. All of the anxious and control participants in the present study perceived experiences as being located in their heads. Again, Kelly had the most salient location of experience samples collected.

Hugelshofer found clear and vivid imagery to be common in two of the three obsessive-compulsive participants, and no imagery in the third. The current study is similar in that all individuals who sampled, both anxious and control, experienced imagery. It is possible that individuals who report symptoms of anxiety fall into three categories, imagers, partial imagers, and non-imagers. Hugelshofer sampled one individual who had no imagery, Hebert found that her anxious participants experienced "indeterminate" images more frequently than did controls, and the present study found varying degrees of imaging ability. It is also possible that individuals in general fall into these same categories of imaging ability.

The only finding in Hugelshofer's study that was not supported in the current study was that of the nature of feeling experiences. Hugelshofer's and Hebert's studies were not similar in findings of feeling frequency, Hugelshofer found these to be higher while Hebert found higher frequencies in controls. Both studies agreed that anxious participants had more difficulty in expressing their emotional experiences. The participants varied in ability to express their emotional experiences from sample to sample and participant to participant, with apparently no differences between groups.
Anxious Samples

Nine of the 189 samples collected from the anxious individuals who participated in this study contained “anxious moments.” Two anxious participants, Amy and Kelly, did not experience anxious moments, Rick experienced one, April experienced two, and Stacy experienced six anxious moments. Anxious moments are defined here as those moments that contain worry, “nervousness,” future-oriented insecurity, or anxiety as otherwise described by participants. One of April’s anxious samples was not described as being an anxious moment by the participant, but clearly contained what most would think of as anxiety.

Four of the nine anxious samples, all of which were sampled moments for Stacy, contain future-oriented task-performance-related anxiety. One example of this task-related anxiety occurred in Sample #31. At the moment of the beep she was sitting down and feeling worry about term papers and failure. This feeling was experienced as immobility in her tongue at the back of her mouth. It was almost as if something were holding her tongue in place, preventing her from turning her thoughts into physical, or even mental, words. At the same time she was having “highly focused” feelings in her head that were related to profanity that she would have been uttering if she would have been able.

Sample #43 and Sample #44 were two more examples of Stacy’s task related anxiety. At the moment of the beep for Sample #43 Stacy was listening to and watching a friend speak. A majority of her attention was focused on a thought / feeling of “worry” about essays that she needed to write. While this worry contained thoughts about her essays, fear, profanity, failure, and a potential reaction by her professor about the work
that she had been doing, it was simultaneously a pounding feeling in her chest. These
different aspects of Stacy's experience were experienced as being one experience, not
many different experiences. Sample #44 is a continuation and intensification of what
was expressed in Sample #43.

Three of the anxious samples contained more immediate fear or concern. All
three of these samples contained attention to peripheral visual stimuli. One example of
this kind anxious experience occurred in Stacy's Sample #53. At the moment of the beep
she was preparing to cross an intersection. A portion of her awareness was focused on
the blinking red palm on the crosswalk sign. A majority of her awareness, however, was
focused on the visual stimuli in her left peripheral vision. More specifically, she was
watching for approaching vehicles coming from her left. This visual attending was
experienced by Stacy as a fear of being struck by automobiles, which she stated is an
ongoing fear.

The other two samples containing immediate fear or concern, both of which
demonstrate "periphery anxiety," were experienced by April. One of these samples is
Sample #21, which was discussed in Chapter 6 in the section on feelings. In this sample
April was looking at a "vegetable doll" in Wal-Mart, and while she was laughing inside
her head, she was also acutely aware and afraid that other people in the store might be
looking at her. In this moment April was visually attending to other Wal-Mart patrons in
her periphery.

In Sample #1 April was at work waiting for a meeting. At the moment of the
beep she was visually attending to another manager looking for a physical pain reaction
based on the story that was being told. In the same moment she was experiencing
nervousness that others may see her in her “street clothes” and not her manager’s uniform. This anxiety was experienced as a trembling in her entire body as well as a hyper-awareness of the activity of other individuals in her periphery to determine if they were passing judgments on her attire.

Nine of 189 samples may not seem like many anxious samples for a population reporting anxiety. It is important to note that each sample contains the experience of an individual for a mere fraction of a second, and all participants used in this study sampled for 60 or less such moments. Examining randomly selected moments totaling less than one minute of an individual’s life introduces sampling error. Were different moments sampled, it is possible that participants would be in the process of experiencing anxiety more frequently. It is also possible that these samples represent the actual frequency anxiety is experience in anxious individuals. It could be that these moments are so salient for participants that they inaccurately consider themselves to experience anxiety more frequently than is the case.

While the anxious moments discussed in this section were divided into future-oriented anxiety and immediate worry, it is important to note that samples identified as containing the experience of anxiety differed from sample to sample. Anxious samples could have been classified based on whether other people were present or not, by the salience of the experience, or in any number of other ways. The samples do seem, however, to naturally fall into categories of temporal orientation.
Recommendations

There are a number of steps a researcher could take in order to investigate further the tentative findings of the current study. The sample of individuals suffering from anxiety symptoms as well as controls should be increased. While the total number of samples was large (267 samples), there were not enough participants to make any definitive conclusions. While the strength of the DES method is the idiographic nature of the results, a larger sample would also allow one to make quantitative comparisons with more confidence.

Another recommendation for future research in this area involves making predictions and formulating precise hypotheses. Hypotheses could be made about the high proportion of sensory awareness experiences found in individuals who report anxious symptoms, the unsymbolized thinking experiences that precede sensory awareness, the relationship between sensory awareness and inner speech and imagery, the relationship between feeling and unsymbolized thought, and the therapeutic value of the DES method as measured by BAI and BDI-II scores. A larger sample would potentially help support any of these hypotheses.

Future researchers studying anxiety with the DES method may also benefit from requiring that participants draw samples from each domain of their lives (i.e. work, recreation, school, etc.). In the current study, participants were asked to sample from a variety of domains, though they were not required to do so. If participants were to sample from every domain of their lives, it would be possible to claim a greater degree of ecological validity in the DES results. It is possible that such information would
provide more insight into the individual participants, as they may experience markedly different internal events in different settings.
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APPENDIX A

TABLES REFERENCED IN TEXT
Table 1

Percentage of the nine common aspects of inner experience

<table>
<thead>
<tr>
<th>Experience (%)</th>
<th>Rick</th>
<th>Stacy</th>
<th>Amy</th>
<th>April</th>
<th>Kelly</th>
<th>Brent</th>
<th>Bill</th>
<th>Jerri</th>
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<td>9</td>
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<td>17</td>
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Table 2

*Phenomenon experienced in more than 33 percent of samples*

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<th>April</th>
<th>Kelly</th>
<th>Brent</th>
<th>Bill</th>
<th>Jerri</th>
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Table 3

*Percentage of samples containing sensory awareness*

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<th>Kelly</th>
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Table 4

**BAI and BDI-II scores for time 1 and time 2**

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Correlations of the nine common aspects of inner experience

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