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AN EXPLORATORY INVESTIGATION INTO THE EFFICACY
OF POSTHYPNOTICALLY SUGGESTED SLEEP TALKING
AS A PARADIGM FOR ELICITING VERBAL DESCRIPTIONS
OF NOCTURNAL DREAMS IN PROCESS

By

Robert Pritam Dave

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ABSTRACT

AN EXPLORATORY INVESTIGATION INTO THE EFFICACY OF POSTHYPNOTICALLY SUGGESTED SLEEP TALKING AS A PARADIGM FOR ELICITING VERBAL DESCRIPTIONS OF NOCTURNAL DREAMS IN PROCESS

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Despite the advent of sophisticated sleep/dream research technology, which has led to the discoveries of the ninety minute sleep cycle and the close relationship between REM sleep and dreaming, a number of scientists today have reached similar conclusions regarding the nature of nocturnal dream content to those reached before the turn of the century. These conclusions, which assert that the majority of dreams are prosaic and that dreaming consciousness, in the words of one investigator, "constitutes a remarkably faithful replica of waking life," run counter to the phenomenological dreaming experiences of many other scientists and lay persons alike.

It was hypothesized in the present investigation that the basis of the predominantly prosaic nature of reported dream content lies in the procedures that have been developed to elicit dream reports, procedures which rely upon waking descriptions of dream recall and which create circumstances of observation that are conducive to the activation of intrapsychic defenses that are unconsciously invoked by subjects to counteract anxiety that would be experienced if they reported uncensored dream content to the experimenters, content which would run a high risk of being perceived by the experimenters disparagingly.

The purpose of the present investigation was to develop and pilot test new procedures designed to elicit verbal descriptions of nocturnal dreams in process, as they occur during sleep through the use of posthypnotic suggestions and to compare the content of these in-process dream reports with the content of dream reports elicited under three more conventional conditions, or circumstances of observation, in which the subjects' dream reports are derived from waking dream memories.

Over the course of twelve nights apiece, three Michigan State University undergraduates, each of whom originally had been assessed to be highly susceptible to hypnosis after having each scored a perfect twelve on the Harvard Group Scale of Hypnotic Susceptibility, were administered a series of experimental posthypnotic suggestions to verbalize their nocturnal dreams as they occurred during sleep within a time-series (or single subject) methodological design. All three subjects manifested a variety of nocturnal verbal descriptions of imagery and thought in response to the experimental treatments that were speculatively analyzed to have been the in-process descriptions of NREM dreams, REM dreams, and hypnogogic fantasy. However, important individual differences between subjects in response to the treatments were also observed, differences that were conceptualized in each case to have been a function of the treatments (which were modified several times in response to incoming data), the subjects' personalities, the interpersonal relationship that developed between the subjects and the experimenter, and/or demand characteristics. Differences

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which were in support of the experimental hypotheses were also observed between the content of the dream reports elicited under the four conditions, or circumstances of observation, employed by this investigation. The implications of our findings as they pertain to dreaming consciousness and methodological issues in dream research were discussed, and recommendations were offered regarding future replicative and developmental research of this nature.

DEDICATION

Dedicated to Vito Cicarelli and the Bayonne Bleeders
(pro set, wide left; 79 blast--preferably to daylight*--on
"Go!").

*Lombardi, V. Holistic Football. Chico, Calif.: Environmental Press, 1973.

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Good God, it's finally over. Can it be possible? I half expect the Wicked Witch of the Midwest to fly overhead and penalize me three 999's and a comprehensive exam for failure to deliver the German translation of the manuscript to Vienna before Independence Day.

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INTRODUCTION

In 1952, the scientific study of sleep entered an exciting new era, when Eugene Aserinsky, a graduate student in physiology working with Dr. Nathaniel Kleitman at the University of Chicago, unexpectedly discovered episodic bursts of rapid eye movements in sleeping subjects he was monitoring with the aid of a polygraph (Aserinsky and Kleitman, 1953; Aserinsky and Kleitman, 1955). Aserinsky originally had been given the assignment of monitoring eye movements by Kleitman, who was interested at the time in studying the relationship between the slow, rolling eye movements that accompany sleep onset and the depth or quality of sleep.

So stunning was Aserinsky's discovery that William Dement, who joined the research effort as a sophomore medical student under Kleitman, later recalled:

It was not until we directly observed these movements in sleeping subjects that we could believe the spectacular inked out (polygraphic) deviations. It would be difficult today to understand how skeptical we were. These eye movements, which had all the attributes of waking eye movements, had absolutely no business appearing in sleep. In those days, sleep was conceived as a state of neural depression or inhibition--quiescence, rest. It was definitely not a condition in which the brain could be generating highly coordinated eye movements that were, in many instances, faster and sharper than the subject could execute while awake. This was the breakthrough (Dement, 1976, pg. 25).

Research progressed as Dement undertook the arduous task of monitoring several physiological measures obtained from night-long polygraphic recordings of sleeping subjects. After sifting through the massive accumulation of data, Dement determined that rapid eye movements are always accompanied by very distinctive

electroencephlographic (EEG or brain wave) patterns and by a number of other physiological correlates. Clearly, these discoveries demonstrated that sleep could no longer be viewed as a unitary phenomenon. Accordingly, Dement coined the terms REM (rapid eye movement) sleep and NREM (non-REM) sleep to mark the distinction between two phenomena which, for the first time, had become clearly discernible.

As these and other spectacular findings began to emerge from Kleitman's lab in the 1950's, interest in sleep research, which had grown moribund, was dramatically revived. Today, sleep research is a booming concern, with upwards of 600 papers on the topic now being published annually (Webb, 1975). Predictably, this avalanche of research has spawned a rapid growth in the sophistication of our knowledge about sleep, of which the characteristics that have been discovered to be associated with the "90 minute" sleep cycle, and its most psychologically interesting component, REM sleep, form the foundation. These characteristics can be summarized best by describing the course of events that reliably occur during the night.

The "90 minute" sleep cycle is a phenomenon comprised of five discernible EEG patterns, known as sleep stages, that have been consensually identified in the countless records compiled over the years by many international sleep researchers (Dement, 1976; Freeman, 1972; Lairy and Salzarulo, 1975; Madow and Snow, 1970; Webb, 1975; Weitzman, 1974; Weitzman, 1976, to name but a few).

The waking state that just precedes sleep onset (Stage 0) is identified in the EEG by the presence of 8-12 cycle per second symmetrical wave forms known as alpha rhythm. As the sleeper drifts

into sleep, s/he may engage in reverie or dream-like experiences known as hypnagogic fantasy. Occasionally these fantasies are associated with feelings of floating or falling that are often terminated abruptly in a jerk that returns the sleeper to wakefulness (a phenomenon known as myoclonia).

Despite the use of sophisticated technology it is virtually impossible to determine the exact onset of sleep, which Dement distinguishes from wakefulness as the moment when awareness is lost and when a meaningful stimulus fails to elicit its accustomed response. Nevertheless, one of the most reliable signs of sleep onset is the slowly drifting side to side eye movements that accompany the gradual transition of EEG patterns from those associated with Stage 0 wakefulness to Stage 1 NREM sleep.

Invariably, the first sleep of the night is NREM sleep, which almost always progresses sequentially through four successive sleep stages before the first REM period of the night appears. Stage 1 NREM sleep is heralded by a desynchronization of the waking alpha rhythm, which is replaced by a mixed arrhythmic low amplitude EEG pattern. After spending only a few minutes in Stage 1 NREM sleep, the sleeper descends into Stage 2 sleep, his or her sleep becoming deeper with each succeeding stage as increasingly more potent stimuli become necessary to cause arousal.

Stage 2 is identified by the presence of "sleep spindles" and "K-complexes," EEG patterns whose parameters are not of concern to this investigation. After several minutes, slow "delta" waves signal the onset of Stage 3 sleep, a ten minute transitional period during which the delta activity becomes more prominent, thereby signalling the onset of Stage 4 sleep. At this point it is extremely difficult to awaken the sleeper.

Thirty to forty minutes after the onset of Stage 1 NREM sleep, a series of body movements announces the beginning of a stage by stage ascent in inverse order through the preceding levels of sleep. Roughly seventy to eighty minutes following the onset of Stage 1 NREM sleep, its characteristic EEG pattern re-emerges, only now it is accompanied by rapid eye movements, which appear in the record of the electro-oculogram (EOG), and by an inhibition in voluntary muscle activity, which appears as suppressed activity in the record of the electromyogram (EMG). Concomitantly, respiration becomes shallow and irregular, and is accompanied by changes in the rate of blood flow and temperature in the brain. This is Stage 1 REM sleep, the first appearance of which lasts for only about ten minutes each night.

Following this ten minute period the sleeper once again descends, then re-ascends through the four stages of sleep throughout the night (Stage 1 NREM appearing only at the onset of sleep; a sleeper awakened during the night quickly returns to sleep at the stage at which s/he was awakened), re-emerging into Stage 1 REM sleep every seventy to 110 minutes, with the average cycle lasting ninety minutes (hence the term, 90 minute sleep cycle). Most of the early part of the night is dominated by Stage 3 and Stage 4 sleep, with each succeeding REM period lasting longer than its predecessor. As the night progresses, the NREM sleep that is interspersed between the REM periods comes to be dominated by Stage 2 sleep, with the final REM periods sometimes lasting as long as sixty minutes. Young adults seldom spend less than twelve percent or more than twenty-four percent of their sleep in Stage 4, with REM sleep ranging from fifteen to thirty percent of total sleep time (Webb, 1975).

This is important to note for research purposes since the temporal parameters of the NREM-REM sleep cycle dramatically and systematically change ontogenetically.

The discovery of the 90 minute sleep cycle marked a major milestone in sleep research, yet its impact has been overshadowed in many quarters by the concomitant discovery that REM sleep is clearly associated with dreaming. It was Aserinsky's discovery of rapid eye movements in 1952 that first suggested to him, and to his mentor Kleitman, that the phenomenon might be related to dreaming. Intrigued by the possibilities, the Kleitman lab put their hypothesis to the test by awakening subjects during REM sleep and then immediately asking them to describe any dream recall. Their results were astounding, as vivid dream recall was elicited time after time following REM awakenings (Dement and Kleitman, 1957a; Dement and Kleitman, 1957b). Now as many as ten to twelve detailed dream reports could be elicited each night, as compared with the previous average of less than one poorly recalled dream report per night which, in the past, had been obtained using the traditional procedure of eliciting spontaneous dream memories following morning awakenings.

Remarkably, Dement and Kleitman found that REM awakenings yielded vivid dream recall eighty percent of the time, a finding which proved to be reliable, as Dement (1976) demonstrated in 1961 when he combined the results of eight similar studies from the world literature and found that dream recall had been elicited from 78.6 percent of all such REM awakenings.

It has also been discovered that dream reports can be elicited from NREM awakenings, although with much less reliability (6.9 percent of the

time in the results of Dement and Kleitman, 14 percent of the time in the combined worldwide findings computed from the results of Dement's literature review). Dement's 1961 NREM percentages were subsequently challenged by Foulkes (1962), who obtained a much higher percentage of dream reports following NREM awakenings than had ever been reported before. However, these findings were later demonstrated to be an artifact of procedure, in which Foulkes asked his awakened subjects, "Was anything going through your mind?," rather than the more specific and traditional inquiry, "Were you dreaming?" In fact, what Foulkes obtained were reports that were more "thought-like" than "dream-like," a distinction which is still used by many sleep researchers today to describe the reports obtained from NREM and REM awakenings respectively, even though it is possible to obtain dream reports from NREM awakenings that are indistinguishable from their REM associated counterparts.

The Foulkes controversy served to underscore the need to operationalize or classify dream reports, a need that has been met with advent of several dream report scales, such as the eight-point scale developed by Orlinsky (Dement, 1976). Yet, even when dream report criteria exclude the thought-like reports obtained from NREM awakenings, empirical content analyses (the most highly esteemed of which is the system developed by Hall and Van de Castle, 1966) performed on dream reports obtained from REM awakenings have led Snyder (1970), among others, to conclude that, "The broadest generalizations (we) can make about our observations of dreaming consciousness is that it is a remarkably faithful replica of waking life."

At first blush, Snyder's conclusion seems astonishing, for it essentially replicates the conclusion reached before the turn of the century by Mary Whiton Calkins (1893), a psychology instructor at Wellesley College. Calkins, an introspectionist who carefully recorded her dream memories upon awakening each morning in a manner that Dement (1976) asserts "could still serve as a model of scientific exposition," concluded that the majority of dreams are fairly prosaic, involving many episodes, people, places, and things that are taken from the current life of the dreamer.

Although it is merely surprising that a contemporary such as Snyder, with all the advantages of modern sleep research technology at his disposal, would reach a conclusion regarding dream content that had been reached seventy-seven years earlier by a scientist using equipment no more sophisticated than pencil and paper, the conclusion itself creates cognitive dissonance from a phenomenological point of view in the minds of many sleep researchers and lay people alike, myself included, who experience the majority of their dreams to be anything but prosaic.

Upon closer inspection, there is evidence suggesting that the apparent discrepancies between the experiences of dreamers and the analyses of dream researchers might be in large part a function of similarities in the circumstances of observation under which the two principal procedures that have been developed to elicit dream reports (REM/NREM awakenings and morning-after recall) are administered. It has been the differences between these two principal procedures, rather than their similarities, that have always been readily apparent, the most

obvious being that REM and NREM awakenings elicit dream reports that are temporally much closer to the phenomenological dream experiences of the sleeper than morning-after introspections. However, the circumstances of observation under which these two seemingly disparate approaches to data collection transpire are in fact similar, insofar as they always involve the subject while s/he is in the waking state.

Dreams, on the other hand, occur in the sleeping state, a state that Dement, as already noted, distinguishes from wakefulness. Hence, Snyder's generalization that "dreaming consciousness...is a remarkably faithful replica of waking life" may be presumptuous in assuming that dream reports elicited from REM/NREM awakenings are in fact accurate observations of dreaming consciousness per se. Recast in more cautious terms, Snyder's conclusion might be revised to state that "waking memories of dreaming consciousness constitute a remarkably faithful replica of waking life."

That the circumstances of observation are also critical to the content of dream recall from the point of view of the interpersonal relationship between a subject and an experimenter has been amply demonstrated by Domhoff and Kamiya (1964) and by Okuma, Fukuma, and Kobayashi (1976), who, respectively, found that dream reports elicited via either the morning-after procedure or with the use of a recently developed "dream detector," which automatically awakens subjects shortly after they enter REM sleep, contain more sexual references when elicited in the privacy of the subject's home (in which s/he correspondingly has spent the night) than dream reports elicited under laboratory conditions.

These findings suggest that interpersonal anxiety regarding the communication of dream content may play a dominant role in the nature of the dream material that a subject is either consciously or unconsciously willing, or able, to report to an experimenter, or, as in the case of Calkins, to a (Victorian-era) public audience. More difficult to demonstrate is the role that intrapsychic anxiety may also play in the content of many, if not most, dream reports, as psychotherapists are well aware.

Yet another set of variables which may also account in part for the predominantly prosaic nature of waking dream recall are anomalies in memory retrieval that may not be associated with anxiety, but which are perhaps more closely related to cognitive capacities involving, for example, short term memory stores and/or transfer of information into long term memory. To wit, Dement (1976) reports that even though laboratory dream narratives increase in length in a manner that corresponds with the amount of time spent in REM sleep prior to awakening, they reach a plateau after roughly fifteen minutes of REM sleep. In other words, dream narratives obtained after fifteen minutes of REM sleep are no longer than those obtained after sixty minutes of REM sleep.

In any case, the many observational problems implicated in the elicitation of dream reports, such as those that may be related to states of consciousness, anxiety, memory, and/or cognitive capacity would be ameliorated if only dreaming could be studied in process. As already implied, it is a common misconceptualization among the uninitiated (and, sometimes, even the initiated) that sleep researchers study dreams. In fact they do not, coming only as close to the phenomenological, sleeping

dream experience as is possible through the verbal reports of waking dream memories. Although future technological advances may yet permit a closer inspection of dreams by converting cerebral activity into "dream movies," such a development is not on the horizon.

In the absence of such technology, intermediate avenues first must be sought and explored. On theoretical grounds, one intermediate approach involving sleep talking appeared feasible at the outset of this investigation as a means by which we might at this time come closer to studying the phenomenon of dreaming in process. The purpose of the present investigation was to take the initial step in attempting to develop and test a procedure incorporating this intermediate approach.

It has been known for countless centuries that humans occasionally talk in their sleep. Sleep talking appears most frequently in the sleep of children and is considered by some to be symptomatic of stress or underlying psychopathology in adults, an assertion which in the view of the present investigation has yet to be adequately demonstrated as necessarily the case. More importantly, sleep talking possesses two major characteristics which, in theory, suggested to this investigator that the phenomenon might be especially well suited for the purpose of eliciting dream reports in process.

The first of these characteristics is that sleep talking does, on occasion, occur during REM sleep, although it has been reported to spontaneously appear more frequently during Stage 4 deep sleep (Dement, 1976; Webb, 1975). The fact that sleep talking has been demonstrated to occur during REM sleep strongly implies that dream verbalizations per se occur in vivo, an implication which, at the outset of this

investigation, theoretically enhanced the likelihood that the very phenomenon we sought to control might in fact be amenable to experimental manipulation without disrupting sleep unduly.

Furthermore, the second major characteristic of sleep talking is that it is accompanied by an absence of awareness. Those readers who have been awakened during the night to be told that they were talking, laughing, or singing in their sleep will recognize the familiar waking amnesia that is invariably encountered when one is informed of these nocturnal verbalizations. The importance of this characteristic is that it suggested to the present investigation that induced dream verbalizations per se might become manifest during sleep without the dreamer's awareness, thereby theoretically enabling us to control for the effects, if any, of waking consciousness on dream recall.

In seeking to develop an operational procedure for eliciting dream verbalizations in process, I encountered only two previous investigations in the literature which also sought to do so, both reported (sketchily) by Dement (1976). One involved a conditioning procedure used by a group of investigators who are identified by Dement only as "Italian." These investigators conditioned ten medical students to free associate to a white noise during wakefulness, then attempted to apply the procedure by stimulating the sound whenever their subjects entered REM sleep. Although success was reported in all but one instance, Dement is critical of the study since it has not been replicated successfully.

The second investigation involved a technique, labelled "evoked sleep talking," that was developed by Louis Aarons. Subjects were conditioned in an avoidance-escape paradigm in which vocalization was

reinforced by the removal of unpleasant stimuli. Although Aarons reported nocturnal responses that ranged from "snorts and grunts to interjections, phrases, and complete sentences," Dement is critical of this procedure as well, noting, "The technique seems to be lacking in respect to obtaining any ongoing description of dreaming, because the intelligible responses seem to be geared more toward the external stimuli than toward any internal dream experience" (Dement, 1976, pg. 52).

In the face of the mixed results obtained by these two investigations, hypnosis emerged in the view of the present investigation as a more viable approach to induced sleep talking. A posthypnotic suggestion to describe dreams as they occur during sleep, which may be given to subjects just prior to bedtime, seemingly offered two theoretical advantages over the procedures described above. First, the execution of a posthypnotic suggestion is frequently dissociated from the hypnotic experience in which it was suggested, as is manifest in the familiar posthypnotic amnesia of highly susceptible hypnotic subjects (Shor and Orne, 1965; Fromm and Shor, 1972; Sheehan and Perry, 1976). If a posthypnotic suggestion to verbalize dreams were to be spontaneously dissociated, it was conceptualized at the outset of this investigation that the potential effects of waking anxiety on the content of dream reports might be counteracted, inasmuch as the subjects would not be aware that they were providing in-process dream reports in the first place.

Second, because a posthypnotic suggestion is incorporated by a subject, the problems associated with the effects of attending to external stimuli would be obviated, as would be those related to the elicitation of sleep talking exclusively during REM periods, insofar as

hypnotic subjects could be instructed to verbalize their dreams whenever they might occur.

Although there was indirect evidence for the execution of a post-hypnotic suggestion during nocturnal dreaming already in the literature prior to this investigation (Stoyva, 1965), the exploratory nature of this research dictated that nothing be taken for granted. Hence, only very highly susceptible hypnotic subjects were to receive the experimental treatment in the hope of maximizing the probability of obtaining success in this initial, piloting effort which sought to take the first step in what is expected to be a continuing line of research striving to develop a procedure for eliciting verbal descriptions of dreams in process.

METHOD

Subjects

As Dement and other sleep researchers have noted, it is generally quite difficult to recruit subjects who are willing to tolerate the inconveniences of spending many nights in a sleep laboratory. Typically, sleep research subjects are paid for their work which, when coupled with the large expenditure of time and energy that must be devoted to individual subjects in sleep research (not to mention the considerable equipment costs accrued in developing a sleep laboratory), makes this line of research an expensive enterprise. As an unfunded and exploratory project, this investigation was necessarily restricted to studying a small sample of subjects, as is typical in the field of sleep research as a whole.

Three Michigan State University first-year undergraduates, two females and one male, ages 18-19, were recruited from a sample of 200 MSU undergraduates administered the self-scoring Harvard Group Scale of Hypnotic Susceptibility (Shor and Orne, 1962). Each of the three recruits scored a perfect 12 on the Harvard Scale, meaning that not only were each of them considered to be very highly susceptible to hypnosis, but that each of them had also executed a posthypnotic suggestion and had manifested a posthypnotic amnesia in the course of being administered the scale. Furthermore, each of these three subjects also stated in written comments that are routinely solicited during the self-scoring phase of the Harvard Scale that they had experienced the hypnotically suggested phenomena comprising the items of the scale,

including the item suggesting the hallucination of an annoying fly buzzing around the subjects' heads, as subjectively real.

For the purpose of providing compensation to the subjects for their participation in the sleep research phase of this project, each of the three recruits were offered payment of \$100 in exchange for twelve consecutive nights to be spent in the sleep laboratory.

Procedure

Hypnotic susceptibility screening

As already mentioned, a sample of highly susceptible hypnotic subjects had to be identified before the three subjects ultimately sought for participation in the sleep lab could be recruited. The 200 subjects administered the Harvard Scale were recruited in the traditional manner by posting rosters identifying the project as "Research on Hypnosis and Dreaming" on specially allocated bulletin boards around the MSU campus, which are provided for undergraduates enrolled in introductory psychology courses to enlist as subjects in psychological research taking place on campus in exchange for extra credits that students may apply toward their final course grade.

Three group hypnosis screenings were conducted over the course of three consecutive nights. Each of the three screenings began with Experimenter 1 (the author) addressing the group as follows:

Good evening and welcome. My name is Bob Dave and I am the director of this research project which has already been described to you as "Research on Hypnosis and Dreaming." Practically everyone seems to be fascinated by these two subjects, hypnosis and dreaming, probably because they seem so mysterious to most of us; at least that's what has aroused our interest.

The purpose of our investigation is to seek to unravel some of the mysteries that surround hypnosis and dreaming. One of the ways that we can begin to do this is by studying the relationship between the quality of one's experiences during hypnosis and their ability to recall their dreams when they awaken each morning. That is what we propose to do here. Tonight we'd like to give you the opportunity of experiencing hypnosis as a group, while at the same time taking some simple measures of your experiences. Then, during the next week, we'd like you all to take a little time each morning to fill out a dream questionnaire which we'll tell you more about near the end of tonight's meeting.

Right now, however, I'd like to tell you a little bit about what you'll be experiencing tonight....

Experimenter 1 then continued with the standardized administration described in the manual of the Harvard Scale. Over the course of the three group screenings Experimenter 1 was assisted by Experimenters 3, 4, and 5 (Eric Olson, M.A., Al Aniskiewicz, Ph.D., and Chuck Bassos, Ph.D.), each of whom supervised the administration of the hypnotic procedures one night apiece, and by Experimenter 2 (Shelley Marshall), who, on each of the three nights, assisted with the distribution of the materiel needed to administer the screenings, certified credit for the participating subjects, supervised the administration of the hypnotic procedures, and served as a general troubleshooter.

At the conclusion of the administration of the Harvard Scale, the subjects were asked to read the instructions printed on a dream questionnaire that was included in a packet (which also contained the scoring booklet for the Harvard Scale and the consent forms required to conduct psychological research) given them when they entered the room for the hypnotic screening (a sample copy of the dream questionnaire can be found in Appendix A). Questions regarding the instructions were then solicited, after which the subjects were dismissed.

Subject recruiting

Each of the subjects from the group screenings who matched the criteria described previously in this chapter under the subheading "Subjects," and who also returned a completed dream questionnaire, were identified as potential recruits. These potential recruits were then rank-ordered in accordance with the subjective comments they wrote in their scoring booklets to describe their experiences during the group hypnosis, with preference given to those who clearly indicated that the hypnotic phenomena were experienced as subjectively real. In fact, there was not a great deal to choose from among the potential recruits who had been identified. The top three candidates were telephoned by Experimenter 1 who, after identifying himself, stated the following:

We've been going over the results of the group hypnosis session in which you recently participated, and our findings indicate that you scored about as high a score as can be obtained with the Harvard Scale we were using that night. Right now we're in the process of recruiting a very select group of individuals to participate in some further research involving hypnosis for which we'll be paying subjects \$100, and you are one of the people in whom we're interested. Would you be interested in meeting with me in my office to discuss this further?

Each of the top three candidates agreed to meet individually with Experimenter 1. At each of the meetings, Experimenter 1 presented the candidates with the following written summary describing in general terms the nature of the activities involved for subjects participating in the sleep research phase of the project:

During the past few days we've been analyzing the data we gathered during the group hypnosis session in which you recently participated. Our results indicate that you are among a very special group of individuals who are considered superior in their ability to enter what is known as a deep hypnotic trance. In fact, your scores were just about as high as can be measured with the Harvard Scale we were using the other night, indicating that you are very susceptible to hypnosis.

Little is known about persons with your ability to experience deep hypnosis, although it has been related by a number of scientists to creativity, ego strength (the capacity to proceed in the face of anxiety), and a willingness to explore novel experiences. We are prepared to pay you \$100 in exchange for your help during Spring quarter, which will enable us to better understand hypnosis by investigating its relationship with sleep and dreaming.

The kind of help we are looking for will involve relatively little effort on your part since we will be paying you simply to sleep twelve nights on campus in what we call a sleep laboratory. At this point you may be thinking, "No way," since sleep laboratory means a sterile room, filled with machines and one-way mirrors through which beady-eyed scientists peer all night long. This is exactly the kind of situation that we want to completely avoid, since your comfort is essential if our research is to have any meaning.

Our sleep lab is in fact a furnished and decorated room with private lavatory and shower facilities that is located on campus. The only time that you would be required to be there is from about one hour prior to bedtime (no matter what time that may be) until a few minutes after you awaken each morning. During the hour prior to bedtime each night, you will be hypnotized, during which time you will be asked to do a few simple hypnotic and posthypnotic tasks involving visual and dream imagery. In order to gather the best data possible, we will need to tape record your responses to these tasks. After you are aroused from the hypnosis we will tape a few wires, called surface electrodes, to parts of your face. I know this sounds uncomfortable, but the electrodes are actually quite small and the procedure is entirely painless. In fact, almost no one has any trouble getting used to it. There is absolutely no electricity running from these electrodes to your body. The electrodes simply pick up brain wave activity which is transmitted through the wires to a machine that records the activity on paper. Our main interest is in finding out whether or not hypnosis has any effect on what is considered to be normal brain wave activity during sleep. We will also be taping a small disc-shaped microphone to your forehead so that we may tape record any sounds or speech that you may make during the night as well as any sounds in the atmosphere that you may hear or react to while asleep. In this way we can also study the relationship between these various sounds and your brain wave activity. Perhaps most important to you, you will not be awakened during the night, which you may have heard occurs in other sleep labs. On the contrary, we want your sleep to be as undisturbed as is possible throughout the night.

Shortly after you awaken each morning, you will be asked to fill out a dream questionnaire that is identical to the one you filled out previously, after which you will of course be free to use the shower facilities and to go about your day as usual. Our aim is to accommodate our research to your schedule. If transportation is a problem, we can even arrange to pick you up at night to make sure that you arrive at the lab safely and comfortably.

In case you are wondering why we made no mention of this part of the project the other night it is because we had to make sure that nobody was trying to demonstrate to us that they were "good" hypnotic subjects in order to be eligible to earn the \$100 we are offering at this time.

Please think this offer over carefully and, if you're not sure at this time, I'll call in a few days to see if you're interested.

After the candidates read the written summary, they were given the opportunity to discuss the project and to ask questions. With each of the three candidates the topic of discussion during this period eventually turned to the intimate aspects of the subjects' lives that each would be sharing with Experimenter 1 during the project (sleepwear, dreams, personal habits, the frequency with which the subjects awaken at night to visit the bathroom, etc.). Invariably, each of the three candidates disclosed one or more areas of personal conflict to Experimenter 1 shortly after discussing these matters of intimacy.

Although the candidates were encouraged to take a few days, if necessary, to think over whatever decision they might make regarding further participation in the project, each of the three candidates agreed to participate in the sleep lab by the time the recruiting meeting reached its conclusion. Before leaving the meeting, the newly recruited subjects were requested to complete a dream questionnaire during the week prior to their first night in the sleep lab that was identical to the one they completed during the week following the group hypnosis screening.

It should be noted that the written summary given the subjects during the recruiting meeting did not fully disclose the true nature of the research to the candidates, omitting any mention of our intent to elicit dream verbalizations. This was necessary in order to provide us with the opportunity to examine the effects, if any, of spontaneous waking amnesia on subsequent posthypnotically suggested, in-process dream verbalizations.

Logistics

Three twelve-night blocks of time covering a span of six consecutive weeks in April and May, 1979, were reserved with the administration of Michigan State University's Olin Health Center, in which the sleep laboratory was constructed, for the purpose of conducting the sleep research proper. The three subjects each were scheduled into one of the three blocks of time according to their preferences which, surprisingly, we were able to accommodate in all three cases.

Each night that they participated in the project, the subjects designated a time of night at which they wished to be picked up by Experimenter 1 in order to be transported to the sleep lab. These times were arranged with the subjects' understanding that at least one hour prior to whatever bedtime the subjects chose each night would be required to administer the experimental treatments. In actuality, the rides from the subjects' homes to the lab provided Experimenter 1 with an excellent opportunity to informally discuss and assess the subjects' day and mood, an unanticipated benefit that paid rich dividends.

Upon arriving at the Olin Health Center, subjects were escorted by Experimenter 1 to the sleep lab itself, located in rooms 205 and 206

of the Center. Room 205 was a small room that housed the experimenters and recording equipment throughout the duration of the project. Room 206, adjoining 205, was a spacious room with private toilet and shower/bath facilities. As the subjects' sleeping quarters, room 206 was modified to remove as much of the hospital/medical atmosphere that pervaded it in its original state as was possible, as efforts were made to create a more naturalistic environment. To this end, posters of works by Picasso and Monet as well as a large, mounted color photograph of a landscape at sunrise/sunset were hung on the walls. In addition, the glaring, swivel wall lamps endemic to hospitals were removed and replaced with softer lighting, more attractive floor and table lamps. Also, the hospital bed originally located in the room was replaced with a dormitory bed identical to those in which each of the subjects normally slept (each subject being a dormitory resident). Other furniture included two chairs, one an overstuffed chair used by the subjects during the administration of hypnotic procedures on some nights of the project, a table on casters that could be swung across the subjects' bed to enable them to write while sitting upright in bed, two small cabinets for storing blankets, and locker facilities for storing personal belongings. Finally, three important pieces of equipment rounded out the contents of the lab: (1) a professional Shure brand microphone mounted on a goose neck and C-clamp atop the headboard of the subjects' bed; (2) a silver-metal jack box, capable of accommodating eight electrode plugs in addition to the microphone jack, mounted on the wall behind the headboard, with a cable running through a narrow tunnel drilled in the wall between the two rooms connecting the jack box to the recording equipment housed in

room 205; and (3) an electronic call button which could be activated from the subjects' bed to signal the experimenters for a variety of purposes.

The two rooms comprising the sleep lab were maintained and cleaned daily by Olin housekeeping personnel who also changed bedsheets, towels, and wash cloths every three days.

Methodological Design

In selecting an appropriate methodological design, two important factors warranted primary consideration. One factor was the exploratory/developmental nature of this project which demanded a methodological design that would provide the flexibility necessary both to modify experimental treatments in response to incoming data and to gather data that would be amenable to observations and analyses of individual differences as well as inter-subject commonalities. The other factor was the small n which precluded any consideration of traditional between-groups designs but which required a methodological approach particularly suited to this circumstance.

In light of these considerations, an ABAB time-series design (Kratochwill, 1978), also known as single-subject design, was selected as the methodological design most capable of accommodating the demands of the two primary factors just discussed. The basic rationale of the ABAB design is that baseline (no treatment) levels of the dependent variable must be established before experimental treatments can be administered. Data analysis is based upon a visual inspection of graphed quantifications of the dependent variable across treatments, enabling the researcher to assess the effects, if any, of his or her experimental manipulations.

Once baseline levels have been established (the first "A" phase of the ABAB design), an experimental treatment may be administered (the first "B" phase of the ABAB design). When the administration of an experimental treatment yields a visibly observable (graphed) change from baseline measures, the "A" phase (no treatment) is replicated until baseline levels are once again approached. Once accomplished, the "B" phase is then replicated until such time as it satisfies the above criteria, after which the researcher is free to administer other treatments in an effort to further manipulate the behavior under study and/or to further isolate and identify the effects of the component independent variables embedded within a given treatment.

The analyses of visually inspected data are sensitive only to large treatment effects. As such, these analyses constitute crude assessments which are simply intended to serve as a frame of reference from which more sensitive analyses can be made. Whereas the focus of between-groups designs is one of statistical significance that is based upon analyses of large groups of mean scores, the focus of single-subject or time-series designs is one of clinical significance that is based upon an integrated analysis of the actual meaningfulness of treatment effects, effects that can be assessed not only from a between-subjects vantage point but which also can be assessed more sensitively within the context of individual differences because of the comparatively more intensive contact with individual subjects that is afforded the experimenter.

Procedure

Treatment A: baseline hypnosis and general sleep lab procedure.

In order to adequately establish baseline levels of the dependent variable (nocturnal verbalizations) from which visually-based analyses of the graphed data could be made, the first three nights that each subject was to spend in the sleep lab were to preclude the administration of any treatment designed to affect an intended experimental manipulation. Nocturnal verbalizations were operationally defined and quantified, for this purpose, as the total number of intelligible words spoken by the subjects each night, from the time the lights in their room were turned out until the subjects' alarm clock rang in the morning.

Upon arriving at the sleep lab proper on Night 1, the subjects were given the opportunity to unpack their belongings and were requested to signal Experimenter 1 with the call button whenever they were ready to begin the first night's hypnotic induction. Upon receiving the appropriate signal, Experimenter 1 re-entered the subjects' room and invited him or her to be seated in the overstuffed chair. Experimenter 1 then stated:

As you may or may not know, it is commonly believed that hypnosis is a form of sleep. If this is true, then one's normal pattern of sleep should be affected by spending some time under hypnosis just prior to bedtime. When I say "normal pattern of sleep" I'm talking about brain wave patterns that reflect the brain's activity during the night. Of course we are completely unaware of these brain wave patterns as we sleep, but they can be observed with the use of EEG recordings that can be taken without disturbing one's sleep whatsoever.

During each of the next twelve nights, we'd like you to spend some time under hypnosis just prior to bedtime. If it is true that hypnosis is a form of sleep, then the normal sleeping brain wave patterns that we measure with the EEG should be affected in very specific ways if one experiences a few dreams

while under hypnosis just prior to bedtime. That is what we'll be testing throughout the remainder of this experiment during the next twelve nights.

After you enter hypnosis each night you will have a series of dreams or dream-like experiences which will enable us to make an excellent test of our hypothesis. In fact, it will be quite easy for you to experience these dreams under hypnosis since it has been demonstrated time and again that persons with much less hypnotic ability than yourself find this task to be no problem whatsoever (this is in fact true; hypnotically induced dreams are considered to be of only moderate difficulty--see Hilgard, 1965 and Moss, 1967). As we discussed previously, these dreams will be recorded on tape.

After we bring you out of hypnosis, we'd like you to get ready for bed. Once you're ready we will tape a few surface electrodes to parts of your face. Again, while this may sound uncomfortable, the electrodes are actually quite small and almost no one has any trouble getting used to them. As a reminder, there is absolutely no electricity running from these electrodes to your body. The electrodes simply pick up brain wave activity which is transmitted through the wires to a machine that amplifies and records the activity on tape.

In place of the disc microphone described in our meeting earlier this year, which during pilot testing we found to be too awkward and uncomfortable, we will be using the microphone you see mounted on the head of the bed to record any sounds in the atmosphere that you may hear or react to while asleep. In this way we can study the relationship between these sounds and your brain wave activity throughout the night.

Once the electrodes have been attached, we'll activate our machinery, set the alarm clock, and turn out the lights. Naturally, the electrode wires will be arranged so that you will have complete freedom of movement in bed. Any questions so far?

All questions were answered at this time, after which Experimenter 1 continued: "Right now, I'd like to go ahead with tonight's hypnosis. Once again, however, we must obtain your consent to participate in this research before we proceed."

Informed consent was obtained using two consent forms, samples of which can be found in Appendix B. Upon obtaining consent, Experimenter 1

proceeded with the first night's hypnotic induction, using a standard eye levitation technique designed to produce muscle fatigue which, in turn, causes heaviness in the subjects' eyelids and, ultimately, eye closure, both of which Experimenter 1 also suggested to the subjects. Once eye closure was achieved, Experimenter 1 continued for several additional minutes to administer suggestions designed to deepen the "trance." Directly thereafter, Experimenter 1 stated, "I'm going to count from one to three. When I reach the count of three, some image or images will come into your mind's eye. When you see this image, or these images, raise your right hand about six inches to let me know."

After the subject raised his or her hand, Experimenter 1 stated, "I've just turned on the tape recorder (a portable cassette recorder brought into the subjects' room each night). Please describe to me exactly what you see in your mind's eye without omitting a thing."

If the subject reported a static or "still-photo" image, Experimenter 1 proceeded, "Soon you will notice this image changing into a series of other images. Please describe these changes to me as they occur."

If the subject, on the other hand, had already reported a series of kinetic images, Experimenter 1 proceeded as follows: "Now some other images will come into your mind's eye. Please describe them to me as you see them."

Once a series of three visual images had been reported, the subjects were informed, "That's fine. You can stop now. When these images disappear from your mind's eye, nod your head to let me know."

Upon receiving the appropriate indication, Experimenter 1 continued:

I'm now going to count from one to five. When I reach the count of five, some dream or dream-like images will come into your mind's eye. As soon as this dream begins, raise your right hand about six inches to let me know. Then, as soon as the dream ends, I'd like you to lower your hand. If you understand what I've just said, please nod your head. OK, I'll now begin to count.

If the subject failed to nod, the instructions were to be repeated verbatim. Once the subject signalled the onset of a dream, a maximum of ten minutes was allotted for the dream to reach termination, after which Experimenter 1 was to interject, if necessary, "I'm going to count and when I reach the count of ten your dream will come to some conclusion." Few subjects were expected to reach the ten minute limit, inasmuch as most of those subjects previously exposed to this procedure reached termination within two minutes of dream onset (Dave, in press).

Upon receiving the subject's indication that the dream had reached its conclusion, Experimenter 1 requested, "Please describe your dream to me in as much detail as possible, without omitting a thing." Once these dream reports had been recorded, Experimenter 1 continued, "Sometime during the next two minutes this dream will disappear from your mind's eye and you will find yourself dreaming about something else altogether. Please describe your new dream to me from beginning to end, as it occurs, without omitting a thing."

Subjects were permitted to describe these hypnotically induced dreams in process until they reached their natural conclusion. The purpose of these preliminary imagery tasks was to build the subjects' confidence gradually in his or her ability to execute tasks which were

conceptualized as closely related to the target behavior. It was hoped that by the time the posthypnotic suggestion for sleep talking was administered, the subjects would be better prepared than they might have been otherwise to accept as plausible and to execute the suggested sleep talking task.

Once the subject's in-process description of his or her final hypnotically induced dream had been completed, Experimenter 1 stated:

That's fine. During the next eleven nights, throughout the remainder of this experiment, whenever I wish to hypnotize you and you also wish to be hypnotized, I will simply count from one to ten. With each number I count, you will find your eyelids becoming heavier and heavier so that by the time I reach the count of ten they will be so heavy that you will be unable to keep them open, at which time they will close and you will be as deeply hypnotized as you are right now. If you understand what I have just said, please nod your head.

This procedure is known as administering a posthypnotic suggestion for rapid hypnotic induction, which enabled Experimenter 1 to subsequently dispense with the more lengthy, ritualized hypnotic induction associated with the eye levitation technique. Following this posthypnotic suggestion, the subjects were awakened from hypnosis and asked to ready themselves for bed. Once ready, the subjects signalled Experimenter 1 with the call button.

Upon receiving the appropriate signal, Experimenter 1 re-entered the subjects' room accompanied by Experimenter 2, who served as a co-experimenter throughout the thirty-six nights over which the sleep lab phase of the project was conducted. Experimenter 2 was introduced to the subjects, after which she and Experimenter 1 attached two surface electrodes to the subjects' foreheads using surgical tape and electrode

gel. Once accomplished, the wires leading from the surface electrodes were plugged into color-coded, labelled jacks located in the jack box mounted on the wall behind the subjects' bed.

In fact, the electrodes and jack box were props, constituting a mock apparatus; for serious financial and time limitations prevented us from obtaining a polygraph for this investigation. Nevertheless, these props served two important functions. One of these functions was to help us present the subjects with a believable rationale or purpose for conducting this investigation without revealing our actual intent or interest. The rationale for this deceptive procedure has already been discussed.

The second function served by this mock apparatus was to ensure that should this investigation meet with success, which would dictate that it be replicated and supplemented with polygraphic data, demand characteristics (if any) associated with polygraphic data-gathering procedures per se could be controlled in advance.

After the electrode wires had been plugged into the jack box, the subjects' alarm clock was set for a time specified by the subjects, the lights were extinguished, and the experimenters retired to their room for the night. Before leaving the room, the experimenters instructed the subjects to ring the call button should it prove necessary to get out of bed during the night. Each night, a dream questionnaire identical to those that the subjects had already completed, was left on the table alongside the subjects' bed. The subjects were instructed to take at least twenty minutes upon awakening each morning to complete the questionnaire, after which they were to signal the experimenters with the call button.

Throughout the course of each night the experimenters, primarily Experimenter 1, continuously monitored with the use of headphones the sounds originating in the subjects' room, focusing of course on the subjects' vocalizations, as well as ambient sounds in the atmosphere that could be picked up at full gain by the microphone (sensitive enough to pick up an intelligible whisper at a distance of three feet). All such data were simultaneously and continuously recorded on audio cassette tape with the use of a high quality Sanyo tape deck.

Upon receiving the appropriate signal each morning notifying him that the subjects had completed their dream questionnaire, Experimenter 1 re-entered the subjects' room to remove the electrodes. During this period, Experimenter 1 routinely asked the subjects how they had slept during the night, inquired as to any discomforts being suffered as the result of wearing the electrodes, and, as the project evolved, asked other questions that became relevant in the face of incoming data. Once accomplished, the subjects were free to shower and/or leave, with Experimenter 1 generally providing them with a ride to a destination of their choice on campus.

In concluding this section, it should be noted that the administration of Treatment A (baseline hypnosis) on nights subsequent to Night 1 was virtually identical to that of Night 1, the only exceptions being that the introductory statement ("As you may or may not know, it is commonly believed...") was dropped, naturally, and the standard hypnotic induction, as already noted, was replaced with the posthypnotically suggested rapid induction.

Treatment B: posthypnotic suggestion

Following the establishment of baseline levels of the target behavior, Treatment B, and variations thereof were administered in a series of attempts to elicit in-process dream verbalizations. Treatment B per se, designed during the proposal stage of this project as the first experimental manipulation to be attempted in the sleep lab, followed the identical procedure administered as Treatment A, from the point of rapid hypnotic induction to the elicitation of the final hypnotically suggested dream that was recorded as an in-process description concluding the preliminary, "warm-up" visual imagery tasks. Immediately after the completion of the final preliminary hypnotically suggested dream, Experimenter 1 administered the posthypnotic suggestion for in-process nocturnal dream verbalizations under Treatment B, stating:

That's fine. As by now you have been able to see, it's actually quite easy to describe your dreams out loud as they occur without interfering with them. In fact, we all do it every once in awhile at night when we talk in our sleep. Tonight, you too will be able to talk in your sleep, but in a very special way. Listen carefully to what I'm about to tell you. Whenever you begin to dream in your sleep tonight, you will also experience an irresistible urge to speak out loud. This urge to speak will not disturb or awaken you in the least because you will be able to speak automatically by just describing your dreams out loud as they occur, just as you have done so several times already while under hypnosis here in the lab. You will only feel this urge to speak tonight and only while you are asleep and dreaming. Because we are all unconscious while asleep and dreaming, you will be completely unaware at any time of the fact that you are talking during your dreams. But this will only make things much more pleasant and relaxing for you since it will allow you to go on sleeping and dreaming as you do normally on any other night without any interference or disturbance whatsoever, even though you will be talking out loud during your dreams.

Once again, whenever you begin to dream in your sleep tonight, you will also feel an irresistible urge to speak throughout the duration of your dreams. This urge to speak will not

disturb or awaken you in the least because you will be able to speak automatically by just describing your dreams out loud as they occur, just as you have done so several times already while under hypnosis here in the lab. Once again, you will only feel this urge to speak tonight and only while you are dreaming. Since you will be unconscious while asleep, you will be completely unaware at any time of the fact that you are talking during your dreams. But this will only make things much more pleasant and easy for you since it will allow you to sleep and dream as you do normally on any other night without any interference or disturbance whatsoever, even though you will be talking during your dreams. If you clearly understand what I have just said, please nod your head.

If the subjects failed to nod, the instructions were to be repeated verbatim. Upon acknowledging clear understanding of the posthypnotic suggestion, subjects were awakened, after which Treatment B followed the identical bedtime procedures described for Treatment A.

In point of fact, Treatment B was only administered twice, and only to Subject 1. Incoming data suggested important revisions in the treatment that were undertaken during the course of the project, as were variations in treatment upon these revisions. However, rather than presenting these treatments out of context in this chapter, they will be described in context in the Results section.

Termination interview

Prior to administering any treatment on Night 12, Experimenter 1 informed the subjects that time would be set aside in the morning to conduct a final interview. The purpose of the interview was to assess the subjects' perceptions regarding the purpose of the research itself and, if necessary, to inform them of the nature of the experimental manipulations, as well as to provide them with feedback regarding the general results of their participation. Conducted as a non-directive interview by Experimenter 1, this interaction was also to be used to

gather data regarding the quality of the subjects' experiences during the course of the project and any other data arising spontaneously or appearing relevant at the time. The interview also created the opportunity to provide both the subjects and Experimenter 1 with a sense of closure following twelve intensive nights of demanding work. At the conclusion of the interview, the subjects were paid for their participation and informed that they would be contacted shortly by Experimenter 1 to arrange a "routine" follow-up interview for the purpose of assessing the after-effects, if any, of their participation in the project (subjects were told that none were anticipated) and to tie up whatever loose ends remained at that time. Finally, subjects were also informed that they were free to call Experimenter 1 at any time should the need, again unanticipated, arise.

Follow-up interview

Each of the three subjects were subsequently re-contacted and interviewed face to face by Experimenter 1 two to four weeks after the conclusion of their participation in the project, at which time the data described above was gathered and the subjects' formal participation in the project was terminated.

RESULTS

Given the logic of the time-series, or single-subject, design upon which this exploratory and developmental investigation was based, the results of (and associated procedures undertaken with) each of the three subjects who participated in the project are best presented individually, in three separate sections, one section per subject. Each section will begin with an opening statement providing general background information on the subject, followed by a night by night developmental chronology detailing in narrative form the events, treatments, and results of this investigation as they evolved over the course of the project. To aid the reader, the effects of the different experimental treatments on the production of nocturnal verbalizations will be summarized for each subject in graphic form and presented shortly after the outset of each individual chronological narrative, upon the conclusion of which the data will be summarized further, then analyzed in detail. Only after this has been accomplished individually for all three subjects can the generalizability of our findings be discussed.

Subject 1

General Background Information

Subject 1 was an 18 year old female first-year undergraduate from suburban Detroit, majoring in geology after switching from her original major, psychology. An only child, Subject 1 was generally quite constricted in her interpersonal interactions with the experimenters, rarely speaking unless spoken to, although this pattern gradually changed as her participation in the project wore on.

As is her habit, Subject 1 generally slept no more than five hours per night in the lab. Arrangements were made with the subject to pick her up at her dorm at 11:30pm each night, after which she would invariably retire to her room in the lab to study for an hour or more.

Night 1

Background information

Upon meeting Subject 1 in the lobby of her dormitory on Night 1 it was obvious that she was extremely anxious. Appearing in the lobby ten minutes late, clutching a stuffed teddy bear, the subject was escorted by three friends who literally pushed her out of the elevator to meet me, offering the subject encouragement and wishing her well. Subject 1 later acknowledged that she probably would have cancelled her participation in the project had it not been for her friends' insistence that she follow through with her commitment.

During the ride to the sleep lab, the subject stated that she had been "scared to death all week." I explored this feeling with her nondirectively during the ride and continued to do so in the subject's room for forty-five minutes after we arrived at the lab. During this time, the subject revealed to me that she had grave concerns about her hypnotic susceptibility ("I'm not sure that I'm susceptible anymore"), that she felt guilty about receiving payment for her participation in the project because she felt that she must "perform" to earn it and doubted very seriously that she would or could perform up to my expectations, and that her parents did not want her to participate in the project because they felt it would interfere with her schoolwork. Although the subject disagreed with her parents on this issue, she

stated that she felt guilty about going against their edict and about not disclosing to them that she was in fact participating in the project.

Stating, "I'm not the right subject," along with other related comments, the subject seemed to be offering me every possible reason to throw her out of the project. However, I felt that it was her responsibility to withdraw and stated only that she had the right to do so at any time without penalty, anticipating that most of her overt anxiety would diminish or disappear only after experiencing the treatment proper as non-threatening. As we neared the end of our forty-five minute discussion, I shared my anticipation with the subject who, now visibly calmed though still observably anxious, agreed that the only way for her to conquer her anxiety about the research was to go ahead with the experience.

Following our discussion, I left the subject alone to study for forty-five minutes, after which she signalled with the call button that she was ready to begin the first night's hypnotic induction. Shortly after re-entering the subject's room following the study break, it was evident that she had relaxed considerably. While signing the consent forms prior to initiating the hypnotic induction, the subject commented that I had "prepared for everything," alluding particularly to the summary detailing the nature of her participation in the project that I had just presented verbally, something which she found reassuring.

As anticipated, Treatment A proceeded smoothly despite the subject's considerable anxiety. Eye closure during the hypnotic induction was achieved in less than three minutes and the subject completed each of the preliminary imagery tasks uneventfully, without any apparent difficulty whatsoever.

Results

As can be seen in the graphed results appearing in Figure 1 (see next page), Subject 1 failed to manifest any nocturnal verbalizations during her first night in the lab. One dream was recalled upon awakening in the morning, as can be seen in the transcripts located in Appendix F. Of added interest were the subject's comments offered in the morning, in which she stated that she now had a different perspective on the project, noting, "I don't know what I was afraid of. There's nothing to be frightened about."

Night 2

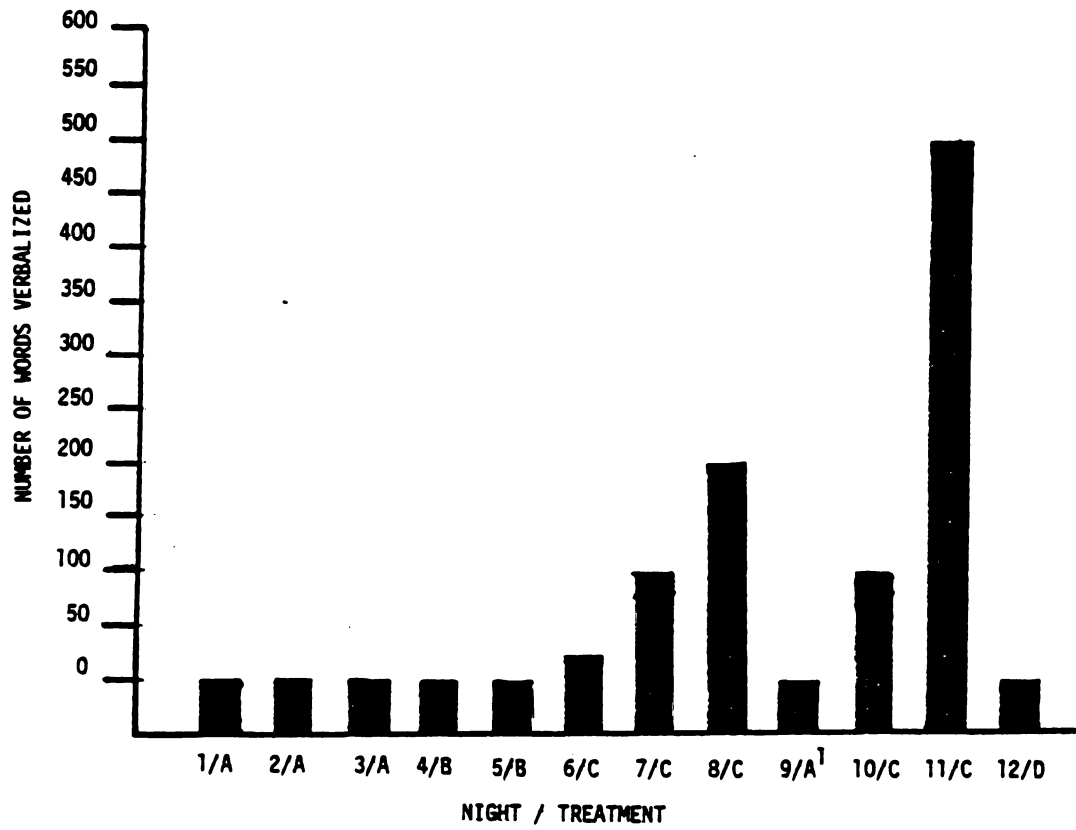
Background information

In striking contrast to the previous night, the subject appeared to be quite relaxed when I met her in her dormitory. Escorted by only one friend, the subject stated that she was feeling "fine," and we had a pleasant conversation (small talk) during the ride to the lab. Upon our arrival, the subject retired to her room to study for one hour forty minutes, after which Treatment A was administered without ado. The subject executed the posthypnotic suggestion for rapid induction flawlessly and appeared to be very deeply hypnotized, manifesting no motor activity whatsoever except that which had been suggested. Once again the preliminary imagery tasks were completed uneventfully and without difficulty.

Results

Once again, Subject 1 failed to manifest any nocturnal verbalizations in response to Treatment A during Night 2. As was also the case

Figure 1. Effects of different experimental treatments on production of nocturnal verbalizations (Subject 1).



following Night 1, the subject once again reported one dream in the dream questionnaire upon awakening in the morning.

Night 3

Background information

During the ride to the lab the subject volunteered that her day had been "lousy. Nothing seemed to go right." After retiring to her room for one hour thirty-five minutes to study for three exams coming up the following day, the subject elaborated upon her comments prior to the hypnotic induction, noting that she had had a two hour "fight" over the telephone with her mother earlier in the day regarding her mother's perception of a "negative attitude" in the subject. "She reminded me of everything I've done wrong since the tenth grade."

Obviously tense, the subject had considerable difficulty executing the first suggested preliminary imagery task following eye closure, although once she was able to initiate the process the remainder of the administration of Treatment A proceeded as usual. Nevertheless, the subject reported and manifested anxiety during her final, in-process verbalization of the hypnotically suggested dream concluding the preliminary imagery tasks, a dream in which the subject visualized a grotesque, bloody operation being performed on a patient who, she discovered during the course of the dream, was herself.

Upon awakening from hypnosis, the subject stated that she could tell that she had been feeling pressure that night because she had found the preliminary imagery tasks "difficult for me to get into." This was the first spontaneous indication the subject had given regarding

any awareness whatsoever of the procedures and manifestations of Treatment A other than the hypnotic induction per se. Curious as to the extent of her awareness, I asked the subject if she remembered anything else about her just-completed hypnotic experiences. After giving the matter considerable and belabored thought, the subject stated, "I remember something about being in a hospital and an operation, and the patient was me," whereupon she shuddered and asked me if it was cold. Asked if she remembered anything else, the subject stated, "No."

After readying herself for bed, the subject noted, while having the electrodes attached to her forehead, that she was shaking on the inside and that it was because of the dream she had remembered. Asked if she wished either to discuss the dream further or to be filled in on the details of the dream, the subject responded with an emphatic "No!" Shortly thereafter, by the time we were ready to turn out the lights, the subject reported that the shaking had completely ceased.

Results

Once again, Subject 1 manifested no nocturnal verbalizations in response to Treatment A, reporting one dream memory upon awakening in the morning that quite evidently was an elaboration or variation upon the anxiety-arousing hypnotic dream alluded to above. During the ride back to the subject's dormitory in the morning, she reported that she had experienced difficulty falling asleep on Night 3 because she had been feeling "afraid," adding in this vein that her mother has "psychic dreams," one of which correctly forecast the "completely unexpected" and "premature" death of her own mother.

Night 4

Background information

During the ride to the lab, the subject volunteered that she had once again experienced a generally "lousy" day, one in which she had not done as well on her exams as she thought she could have, had received an unsettling telephone call from an ex-boyfriend, and had also received a telephone call from a high school friend who berated the subject for "abandoning" her old friends. After retiring to her room in the lab for one hour fifteen minutes to study for yet another exam the following day, the subject requested the opportunity to discuss her frightening dream from the night before, prior to initiating the hypnotic induction.

Interpreting the operation in her dream as symbolizing painful changes she had been undergoing during this, her first year away from home, resulting in the symbolic "death" of certain features of her former personality, not to mention current interpersonal relationships, the subject proceeded to associate from one area of personal conflict to the next, discussing such topics as her hearing and speech impediments (and their psychological ramifications), her low self-esteem and feelings of inadequacy, and areas of interpersonal and philosophical conflict between herself and her parents and friends. For nearly two hours the subject and I discussed these areas, creating a conflict for me in that I had to choose between: (1) denying, blunting, or evading the subject's need/desire to discuss these issues; and (2) allowing the subject to proceed, which might run the risk of crossing a fine line distinguishing our relationship from one defined as that between an experimenter and a subject to one defined as that between a counselor/psychotherapist and a client, a line over which it is considered professionally

unethical in psychological research to cross. With great caution, I allowed the subject to proceed, reasoning that the subject's entree was the natural consequence of the intensive and intimate nature of the project, out of which an unusual (for the subject) interpersonal relationship was evolving, involving daily and oftentimes relatively deep introspections by the subject in response to my frequent inquiries. To deny the subject the opportunity to explore issues made conceivably more cogent by her participation in the project seemed to run the risk of imperiling the development of trust and rapport, which might have been built otherwise and without which, it was conceptualized, the probability of this investigation meeting with success would have been considerably diminished.

In any event, the discussion proved cathartic to the subject, who had relaxed so much by its conclusion that she expressed "surprise," given her great tension earlier in the evening, that she now felt "so good." As we ended the discussion I felt as though we had established a great deal more rapport than had ever existed between us before.

Having clearly established an adequate baseline level for the dependent variable in response to Treatment A on Nights 1-3, and given the subject's buoyant mood prior to administering the hypnotic induction, I elected to administer Treatment B for the first time on Night 4. The treatment proceeded smoothly and uneventfully. In fact, the subject appeared to be more deeply hypnotized than ever before, as there were no furrows in her brow (as had been the case occasionally on previous nights), my notes indicating that the subject "looked truly serene for the first time" since she had begun her participation in the project.

The posthypnotic suggestion for in-process dream verbalizations was received by the subject without any observable signs of anxiety and she did not give any spontaneous waking indication that she was aware a posthypnotic suggestion had been administered. Of added interest, the subject left her teddy bear in the locker at bedtime for the first time since she had begun her participation in the project, where it remained for the rest of the research.

Results

To the disappointment of the experimenters, Subject 1 did not manifest any nocturnal verbalizations in response to Treatment B during Night 4. In fact, the only change in the results, when compared with baseline nights, was the finding that the subject failed to recall a single dream or dream fragment upon awakening in the morning.

Night 5

Background information

In contrast to the previous two nights, the subject reported on Night 5 that she was in a "good" mood despite the fact that she had been unable to complete her exam earlier in the day. Nevertheless, after retiring to her room to study for three hours for yet another exam the following day, the subject experienced a great deal of difficulty initiating and sustaining any sort of visual imagery during the preliminary hypnotic tasks. Puzzled by this anomaly, I once again administered Treatment B, which the subject received, as before, without any observable signs of anxiety.

Results

As was the case following the administration of Treatment B on Night 4, the subject failed both to manifest any nocturnal verbalizations during Night 5 and to recall any dreams or dream fragments upon awakening. More alarming, the subject appeared in the morning to be exhausted, with puffy eyelids and dark circles under her eyes. When I commented upon her appearance, the subject stated that she had found it inexplicably difficult to sleep during the night, revealing no hint in the process that she had any awareness of the administration of the posthypnotic suggestion.

Night 6

Background information

Despite her apparent exhaustion, which I had witnessed only fifteen hours earlier, the subject reported that she was in a "good mood" during the ride to the lab. Nevertheless, I had hypothesized that the failure to elicit any nocturnal verbalizations in response to Treatment B, the abrupt absence of any dream recall on mornings following the administration of the treatment, and the subject's resistance to the preliminary imagery tasks on Night 5 (in addition to her fitful sleep), were symptomatic of inherent problems in either the nature of the posthypnotically suggested task itself, or in the wording constituting the Treatment B posthypnotic suggestion per se. In order to test either hypothesis, the posthypnotic suggestion had to be reworded.

Operating without the benefit of empirical evidence, I hypothesized that the major problem with the wording of the Treatment B posthypnotic

suggestion was that the suggestion stating the subject would "feel an irresistible urge to speak" was so foreign to human experience as to be rendered incomprehensible, and thus ineffective, if not also anxiety arousing.

Furthermore, I hypothesized that there were procedural problems in the timing of the administration of the posthypnotic suggestion, which, it will be recalled, was administered prior to the subject's preparation for bed. This procedure necessitated the subject being awakened from hypnosis prior to bedtime, after which she spent considerable time readying herself for bed, was exposed to yet another procedure involving the application of electrodes, and engaged in banter with the two experimenters. It was hypothesized that the intervening period of time between the subject's arousal from hypnosis and the point at which the lights were turned out at bedtime was fraught with distractions that could conceivably weaken the potency or immediacy of the posthypnotic suggestion.

Consequently, Treatment C was devised and implemented on Night 6 as follows. After retiring to her room to study for forty-five minutes, Subject 1 signalled Experimenter 1 that she was ready to initiate the hypnotic induction. Upon entering the subject's room, Experimenter 1 informed the subject that tonight a new experiment would be undertaken, one designed to observe and measure the polygraphic effects manifested when subjects fall asleep directly out of a state of hypnosis. Once again, deception was maintained so as to preserve the apparent post-hypnotic amnesia currently manifested by the subject, which was assumed to be extant in the face of the subject's failure to spontaneously remark upon any of the hypnotic procedures.

The "polygraphic" rationale was accepted by the subject with equanimity, after which she was requested to prepare herself for bed since the hypnotic induction would be administered only after the electrodes had been attached and she was comfortably situated in bed. Once accomplished, Experimenter 2, who assisted with the attachment of the electrodes, left the subject's room. Experimenter 1 then administered the rapid hypnotic induction and preliminary imagery tasks exactly as he had done so before, the only exception, of course, being that the subject was now lying in bed in her night clothes rather than reclining in the overstuffed chair.

The treatment proceeded smoothly and without incident. The subject reported that she felt "good" upon inquiry following the depth enhancing suggestions routinely administered after the hypnotic induction proper, and experienced no difficulty whatsoever initiating and sustaining the preliminary imagery tasks. Following completion of the final preliminary task, Experimenter 1 administered to the subject the following, revised posthypnotic suggestion, stating:

That's fine. During the past five nights, you have demonstrated both to me and yourself that when you are relaxed it is very easy for you to describe your dreams out loud. In fact, you have become so good at describing your dreams out loud under hypnosis that you are now ready to describe your dreams out loud in your sleep. Listen carefully to what I'm about to tell you because tonight it is very important that you remember my words. Tonight, after I leave the room and you've fallen asleep, I'd like you to keep on describing your dreams out loud each time that they occur. After you fall asleep tonight, I'd like you to tell the microphone exactly what you see whenever a dream or dream-like image comes into your mind's eye. It's very important tonight that you be absolutely certain to talk out loud so that the microphone can hear everything you say. From the moment that you fall asleep tonight until the alarm clock rings in the morning, each and every time that a dream or dream-like image comes into your mind's eye, you will tell

the microphone everything that you see, or hear, or smell, or feel, or taste without waking up. The most important thing to remember tonight is that you must be absolutely sure to talk out loud so that the microphone above your head can hear you speak every single time that a dream or dream-like image comes into your mind's eye. Even after you fall asleep tonight, you will continue to remember and hear my words clearly, and you will not forget to do anything that I have just told you. If, and only if, you understand these instructions, nod your head to let me know.

Highly redundant and much more concrete than the Treatment B post-hypnotic suggestion, the Treatment C posthypnotic suggestion was received without any observable signs of anxiety by the subject, who nodded her head readily in understanding of the instructions above. Experimenter 1 then stated, "OK, I'm now going to turn out the lights and leave the room. Once I leave, you will fall asleep quite naturally, without any difficulty, and I'll see you in the morning."

Results

In striking contrast to the failure of Subject 1 to manifest any verbalizations during the previous five nights, three discrete episodes of speech comprising a grand total of twenty-four words were manifested in response to Treatment C on Night 6 (these and all other data will be summarized and analyzed at the conclusion of this section). Once again, however, the subject was unable to recall any dream content upon awakening in the morning. Stating that she slept "really pretty well," Subject 1 made no spontaneous allusions in the morning to the posthypnotic suggestion, the sleep talking task, or to her nocturnal verbalizations.

Night 7

Background information

Relieved from the burden of studying for midterm exams, the subject reported that she was in a "good" mood at the outset of Night 7. After retiring to her room at the lab for one hour to do some leisure reading, Subject 1 was once again administered Treatment C (the only modification being that the opening words of the post-hypnotic suggestion, "During the past five nights," were replaced with the words, "Once again tonight"). As on Night 6, the administration of the treatment proceeded smoothly, without incident or difficulty, and the posthypnotic suggestion was once again received without any outward signs of anxiety or resistance.

Results

Seemingly building upon her performance of Night 6, Subject 1 manifested five discrete episodes of nocturnal verbalizations comprising a grand total of seventy-nine intelligible words in response to Treatment C. Once again, however, she could not recall any dream content upon awakening in the morning, although she did report that she had slept "well."

Night 8

Background information

Having been visited by her parents earlier in the day, Subject 1 was in a talkative mood on Night 8, wishing to share her perceptions of her parents with me. Becoming increasingly bold in her appraisals, the subject painted a picture of her parents as overprotective, engulfing, suspicious, and intrusive individuals whom the subject found "boring" at the very least. In spite of (or perhaps because of) her ability/opportunity to share this assessment, the subject conversed easily and seemed to be in unusually high spirits, just as she had also been observed to be earlier in the day during the ride back to her dormitory. After retiring to her room at the lab to study for two hours, the subject was once again administered Treatment C which, as was by now becoming the norm, proceeded smoothly and uneventfully.

Results

Increasing her productivity, Subject 1 manifested eight discrete episodes of nocturnal verbalizations comprising a grand total of one hundred ninety-eight intelligible words in response to Treatment C on Night 8. Again, she failed to recall any dream content upon awakening in the morning and, as always, did not spontaneously allude to the treatment or its manifestations, stating only that she had slept well during the night.

Night 9

Background information

During the ride to the sleep lab, Subject 1 reported that she had napped for about one hour earlier that morning, stating that she had

dreamed "practically the whole time," although she could not recall the specific content of these dreams. Adding that she was in a "bad mood" as the result of interpersonal conflicts of long standing that suddenly had come to the fore in response to the added time she had spent introspecting of her own accord ever since her participation in the project had begun, the subject retired to her room in the lab for one hour fifty minutes to study. After signalling the experimenters that she was ready to initiate the hypnotic induction, the subject began to free associate to the interpersonal conflicts alluded to above. Reasoning once again that it would have been counterproductive to dissuade the subject in her attempts to work through these issues, given their apparent immediacy and/or urgency, I simply allowed her to continue free associating, stating very little during the process. Within half an hour the subject had satisfied her need to introspect "interpersonally," at which time she thanked me for listening, adding that my attentive ear had been helpful to her.

Having demonstrated a change from baseline in the dependent variable following the administration of Treatment C on Nights 6, 7, and 8, the posthypnotic suggestion was withdrawn on Night 9, as Experimenter 1 once again administered a baseline "non-treatment" in accordance with the logic of the time-series design. However, in keeping with the newly developed procedure of performing the hypnotic induction with the subject in bed, after which the subject was allowed to fall asleep directly out of a state of hypnosis, and so as to control for demand characteristics which might suggest to the subject that she make alterations in her performance in response to the introduction of yet another "new experiment" (i.e. a

replication of Treatment A according to the original procedure with the subject in the overstuffed chair), Treatment A¹, a variant of Treatment A, was developed and administered on Night 9.

Treatment A¹ was identical to Treatment A with the following two exceptions. One, the hypnotic induction and preliminary imagery tasks were administered while the subject was in bed, "wired" with electrodes, and fully prepared to fall asleep directly out of a state of hypnosis. Two, following the completion of the final preliminary imagery task, Experimenter 1 did not awaken the subject from hypnosis, but stated, "OK, I'm now going to turn out the lights and leave the room. Once I leave, you will fall asleep quite naturally, without difficulty, and I'll see you in the morning."

It will be noted that this concluding hypnotic suggestion was identical to that administered under Treatment C immediately prior to the point at which the lights in the subject's room were turned out. The administration of Treatment A¹, as expected, proceeded smoothly, without incident.

Results

As had been the case during Nights 1, 2, and 3 following the administration of Treatment A, the subject failed to manifest any nocturnal verbalizations in response to Treatment A¹ on Night 9. Interestingly, however, the subject finally recalled a dream upon awakening in the morning for the first time since the dream she recalled on the morning following Night 3. In very high spirits upon awakening, Subject 1 stated that she had slept "great" during the night and that she felt

ready to "face the world again," adding profuse thanks for "understanding me and helping me with my problems" when I dropped her off at her dormitory in the morning. Again, the subject made no references to any of the hypnotic procedures.

Night 10

Background information

Having sustained her high spirits throughout the day, despite it being her heaviest day of classes, Subject 1 was once again in an "excellent mood" at the outset of Night 10. Significantly more talkative and outwardly friendly than she had ever been before during our rides to the lab, the subject, with obvious delight, engaged me in a light conversation of small talk.

After retiring to her room in the lab to study for two hours, the subject was administered Treatment C once again in order to satisfy the requirement calling for replication in the time-series design, inasmuch as the dependent variable had returned to baseline levels following the withdrawal of Treatment C on Night 9. As had come to be expected, the treatment proceeded without incident or difficulty.

Results

As had been the case previously following the administration of Treatment C, Subject 1 once again manifested nocturnal verbalizations on Night 10, nine discrete episodes comprising a grand total of ninety-one intelligible words. Surprisingly, the subject recalled three dreams upon awakening in the morning, each of which, she reported, she had awakened from during the night. Stating that she had awakened repeatedly

during the night, "like about every hour or so," the subject described the experience as "really weird because I never wake up during the night," adding that she had experienced the first dream reported on the questionnaire (see Appendix F) as "really vivid, unusually so." Nevertheless, the subject made no spontaneous allusions whatsoever to the posthypnotically suggested task.

Night 11

Background information

Still in a "fine" mood, the subject retired to her room upon arriving at the lab to study for two hours fifteen minutes prior to signalling the experimenters. Before initiating the hypnotic induction, the subject commented that for reasons she did not yet understand, her repeated awakenings the previous night made it seem to her "as though I were trying to avoid dreaming." Questioned further on her comment, the subject attempted to explore and/or uncover the dynamics underlying her "avoidance," but to no avail.

Following these preliminaries, the subject was once again administered Treatment C, the procedure meeting with no observable signs of resistance or anxiety.

Results

Increasing her productivity over the previous night in response to the replication of Treatment C, as had been the case previously on Treatment C replication nights (Nights 7 and 8), the subject manifested five discrete episodes of nocturnal verbalizations comprising a grand total of five hundred three intelligible words. Once again, however,

the subject was unable to recall any dream content upon awakening in the morning, although she did report that she had awakened "more than three times" during the night. Of special interest were the subject's remarks, made during the ride to her dormitory in the morning, that ever since the sixth night of her participation in the project (the night coinciding with the initial administration of Treatment C), she had been awakening each morning in the lab "unusually refreshed," significantly more so than had ever been the case in recent history when she awakened either at home or in her dormitory. This feeling of refreshment, she noted, was in distinct contrast to feelings experienced during typical mornings on which she usually awakened exhausted, finding it generally difficult for most of the morning to "think clearly." Furthermore, the subject added, ever since the sixth night of the project she had noticed that she had been falling asleep in an unusually short amount of time, a matter of minutes in contrast to the hour and a half of fitful tossing and turning, with her mind dominated by obsessive thoughts regarding her day, life, schoolwork, etc., that she typically required to fall asleep at home. Once again, the subject failed to make any mention of the post-hypnotic suggestion or sleep talking task.

Night 12

Background information

Still in a pleasant mood on this, the final night of her participation in the project, the subject retired to her room upon arriving at the lab to study for two hours. Having now demonstrated an effect in response to hypnotic suggestions, our results suggested that the next logical step would be the administration of an experimental treatment

designed to elicit nocturnal in-process dream verbalizations without the benefit of hypnosis. Consequently, at the point at which the hypnotic induction had been initiated the previous six nights, Experimenter 1 informed the subject that a new experiment would be attempted on this, the final night, and that hypnosis would not be involved.

Designated Treatment D, the procedure administered by Experimenter 1 was identical to the administration of the Treatment C posthypnotic suggestion with the following exceptions: (1) the "suggestion" was administered to the subject in the waking state immediately after she had been informed that a new experiment would be attempted without hypnosis; (2) the opening words of the suggestion, "Once again tonight," were replaced with the words, "Over the course of the past eleven nights"; (3) the word "relaxed," appearing in the first sentence, was replaced with the word "hypnotized"; (4) the phrase "you will," which appears twice in the original wording of the Treatment C posthypnotic suggestion, was replaced in both instances with the phrase, "I would like you to"; and (5) the subject was asked if she understood the instructions and/or had any questions regarding the same at the conclusion of the administration of the treatment rather than being requested to nod her head.

Subject 1 accepted Treatment D largely with equanimity, stating that she would try her best to execute the instructions but that she had some doubts about her ability to do so. Experimenter 1 then emphasized that the only matter of importance was that she simply try her best. The subject accepted this reassurance and responded, upon inquiry, that she had no further questions, after which Experimenter 1 stated, "OK, I'm now going to turn out the lights and leave the room so that you can

go to sleep. I'll see you in the morning." At no time did the subject give any hint of awareness that she had ever been asked to execute these instructions before.

Results

Following the administration of Treatment D, Subject 1 failed both to manifest any nocturnal verbalizations during Night 12 and to recall any dreams upon awakening in the morning. Reportedly feeling quite groggy in the morning, the subject noted that this was the feeling she normally experienced upon awakening.

Termination Interview

After the subject had dressed and readied her belongings to be moved out of the sleep lab, the termination interview described in the method section was conducted. Throughout the interview, Subject 1 had considerable difficulty understanding even simple questions. She also experienced some difficulty expressing herself, both areas of difficulty, she reported, being symptomatic of her previously described "inability to think clearly" for virtually the entire duration of most mornings.

Asked what she perceived the scientific purpose of the project to be, the subject could not offer even a single rationale, stating simply that she really didn't have any idea about the aims of our research or what we were looking for during the course of her participation. After giving the subject every opportunity to expand upon or alter her response, Experimenter 1 informed her that one of the purposes of the project was to determine whether or not persons highly susceptible to hypnosis could be induced to describe their dreams out loud as they occurred during sleep. The subject looked puzzled in response to this statement.

Informed that she had been given a posthypnotic suggestion to verbalize her dreams on several occasions during the project, the subject expressed surprise. Asked if she had ever been aware of these suggestions prior to being so informed, the subject stated, "No." She then paused for several seconds, apparently deep in thought, then remarked, "Wait a minute. I remember you saying something about that one of those nights when you hypnotized me in the chair." Asked what else she remembered about the posthypnotic suggestion, she responded, "I remember that it made me really uptight, although I don't know why."

Asked if she had any recollection of ever talking out loud at any time during any night she had participated in the project, the subject stated, "If I did talk, I'm not aware of it." Informed that she had in fact spoken during the night, the subject was then offered the opportunity to listen to the tapes of her verbalizations, an offer which she immediately refused to accept, adding that she was not interested in being provided with the details.

Finally, the subject was given an explanation of the actual scientific rationale for employing the procedures involving deception during the project, which she accepted without any apparent signs of resentment, anger, humiliation, or other variations of dystonia, professing a clear understanding of the scientific method and the need for such controls, an understanding which she claimed to have acquired through her heavy course load in, and consequent exposure to, the natural sciences.

As the interview reached its conclusion, the subject was presented with a check for \$100 in payment for her participation in the project.

The subject refused to accept the payment, stating that since her participation in the project had been such a growth experience, as the result of overcoming her initial fears, delving into and working through previously unrecognized areas of conflict through her exposure to intensive introspection, and as a result of my willingness to "help" her by providing an attentive ear when she needed to explore her feelings of anxiety, the net result of her participation constituted "payment enough." I was concerned that the subject's refusal of monetary payment was a rationalization to defend against feelings of guilt, for it will be recalled that the subject expressed feelings of guilt on Night 1 regarding her acceptance of payment. I shared my concern with the subject, who insisted that guilt was not the motivating force behind her decision but that it was her way of acknowledging in a concrete manner that her participation in the project had been a positive experience, albeit unexpectedly so. I made no further attempts to foist the check upon the subject and the interview was concluded with a reminder that I would call the subject shortly to make arrangements with her for a brief follow-up interview.

Follow-Up Interview

Eighteen days after the termination interview was conducted, Experimenter 1 met with Subject 1 at her dormitory to conduct a follow-up interview. The most striking feature of the interview was the subject's interpersonal behavior, which might be best described as expansive. Whereas the subject's interpersonal interactions with the experimenters had previously been quite constricted and lacking in spontaneity, her

interactions with Experimenter 1 during the follow-up interview were outgoing largely self-initiated, and warm.

Greeting Experimenter 1 with a big smile and a handshake, the subject first suggested that we could conduct the interview in privacy in the dormitory grill which was largely unoccupied by customers at that time of day. During our walk to the grill, the subject warmly greeted a number of dormitory residents we passed on the way, a rather surprising display of behavior which, when I commented upon it, the subject acknowledged to be newly added to her interpersonal repertoire.

During the interview proper, the subject bubbled with enthusiasm, volunteering that ever since the termination of her participation in the project she had been remembering progressively more and more about the hypnotic/dream experiences. Primarily, the subject recalled that she had experienced strikingly vivid dreams in the lab seemingly shortly after falling asleep on several nights, dreams whose visual imagery, she reported, "was actually more real than intense dreams. You're actually there, more aware of your senses than when dreaming normally... the colors were more vivid--everything was more vivid. Everything seemed more tangible...The visual imagery was like you're a part of it, like you are part of the visual world." Asked if during these vivid dreams she could now recall having been aware of the fact that she was dreaming, the subject stated that in no way was she aware at the time that she was actually dreaming since she was so involved in her participation in the "imagery world" that she experienced these dreams as reality itself, supplanting, in her words, the reality of "I am asleep, under hypnosis, here in the lab."

Asked if she had gained any insight into the anxiety she had experienced when administered the Treatment B posthypnotic suggestion, the subject quickly responded that she could now recall having experienced anxiety in association with the administration of both the Treatment B and Treatment C posthypnotic suggestions, anxiety associated with her "fear that I couldn't perform." Adding quite correctly and perceptively that the posthypnotic "suggestions" were actually commands ("you will tell the microphone everything you see") rather than suggestions per se, the subject reported that the authoritarian wording of the posthypnotic command activated performance anxiety related to her feelings of low self-esteem, feeling that a "good performance was expected of me." Asked why she had not shared her anxiety with me, the subject pointed out that during the project she had not ever been clearly aware of the anxiety, stating, "I think I just put it out of my mind. I think I felt as though the situation was like it was my parents; it makes you anxious that you can't do it and complaining would have been like disobeying my parents."

Although she had been unable to recall any dream content on most of the mornings she awakened both during the week prior to her participation in the sleep lab and during the twelve nights spent in the lab itself, the subject reported that she now found herself generally remembering more than one dream upon awakening each morning and that the content she was now recalling was "more complete. Like before, it was like reading a chapter of a book while skipping every other page. Now, it's like reading two chapters while reading every page." Furthermore, she also reported that she was finding it much easier to fall asleep

and that she now experienced and/or was more aware of vivid hypnogogic imagery in place of the pre-sleep obsessive thoughts that had previously dominated her experience prior to her participation in the project.

Concluding the interview, the subject noted in response to my inquiry that she had suffered "absolutely no" negative aftereffects as the result of her participation in the project. To the contrary, she stated, "The experiment was a catalyst that seemed to start a whole chain of events that totally changed my outlook on everything. Even my parents and my close friends noticed. Mom said I seemed more at peace with myself. That's why I didn't want the \$100--the experience itself had been so valuable to me...The imagery was so vivid that it made my waking experience seem so much more vivid--my relationships, colors, everything."

Adding, finally, that she had told her parents that she had in fact participated in the project against their will and had come out of the experience in better shape than she had gone in, the subject reported that she was now finding it easier to confront her parents on a number of previously taboo issues over which she had been experiencing debilitating conflicts. As we wrapped up the interview, the subject expressed a parting desire, if possible, to meet with the other subjects in the project in order to share the experience.

Data Summary and Analysis

Treatment effects

As can be seen in the graphed results found in Figure 1 at the beginning of this section, only Treatment C had the effect of eliciting nocturnal verbalizations from Subject 1.

The slope of the graph suggests further that a practice effect was involved in the subject's productivity, as she manifested increasingly more wordy nocturnal verbalizations with successive administrations of Treatment C, also displaying an apparent and brief latency in the recovery of and improvement upon previous maximal productivity following the withdrawal and readministration of the treatment.

Although a more controlled investigation would have to be undertaken to ultimately assess the potential effectiveness of Treatment B, the results suggest that Treatment C is the more effective of the two, apparently a joint function of the immediacy of the posthypnotic suggestion and/or its concrete wording, although the effects of these two variables also cannot be analyzed adequately without first conducting a more controlled investigation.

Clearly, however, productivity appears to be a function of the combined effects of suggestions/instructions administered under hypnosis, for the results indicate that neither hypnosis alone (see Night 9) nor suggestions/instructions administered without the benefit of hypnosis (see Night 12) elicit an effect.

As can be seen in the data presented in Table 1 below, the administration of all three treatments designed to elicit nocturnal verbalizations invariably, with one exception, had a powerful inhibiting effect on the subject's ability to recall dream content upon awakening in the morning. The one exception occurred on Night 10 when the subject was in an exceptionally high mood (see Night 10: Background Information) and awakened several times during the night directly after or during the experience of dreaming. Other than the apparent effects of this

exceptional mood upon performance (to be discussed later), self-reported mood did not appear to have any observably reliable effects upon the outcome of Subject 1's participation in the project, although it is clear that after the first three nights was virtually no variance in reported mood. Similarly, anomalies in the subject's response to the administration of treatments and the preliminary imagery tasks were few and did not appear to have any observable effect on the outcome of the subject's performance.

Table 1. Self-reported mood prior to administration of different experimental treatments, anomalies in response to administration of treatments/preliminary imagery tasks, and presence of morning-after waking dream recall.

<u>Night</u>	<u>Treatment</u>	<u>Mood</u>	<u>Anomalies</u>	<u>Recall</u>
1	A	"anxious"	none	yes
2	A	"relaxed"	none	yes
3	A	"anxious"	resistance	yes
4	B	"good"	none	no
5	B	"good"	resistance	no
6	C	"good"	none	no
7	C	"good"	none	no
8	C	"good"	none	no
9	A'	"good"	none	yes
10	C	"excellent"	none	yes
11	C	"fine"	none	no
12	D	"pleasant"	none	no

Validity of treatment effects

Having elicited nocturnal verbalizations in response to the administration of Treatment C, the question automatically arises as to whether or not these verbalizations were the manifestations of nocturnal dreams. Typically, nocturnal dreams are operationally defined as imagoically mediated phenomena occurring during sleep that are perceived by the

dreamer without any concurrent awareness of the circumstances external to the "dream world" within which his or her perceptions are taking place. In other words, the dreamer experiences the perceived events occurring in his or her dream as waking reality itself, without being conscious of the fact that s/he is actually dreaming and asleep.

This operational definition, although basically sound, does not accommodate the "thought-like" products that have been elicited from NREM awakenings, referring instead, it would seem, to the more "dream-like" products associated with REM sleep. Rather than attempting to resolve the conflict over the legitimacy of these two products, this investigation will opt for a more generally applicable operational definition of nocturnal dreams as any mental phenomena occurring during sleep that are perceived by the dreamer without any concurrent awareness of the circumstances external to the "dream world" within which his or her perceptions of these phenomena are taking place.

Each of the nocturnal verbalizations manifested by Subject 1 matched that part of the criteria stipulating that they be accompanied by an absence of external awareness in order to qualify as the products of nocturnal dreams under the operational definition just presented. Whether or not the subject was actually asleep during these verbalizations remains problematic, for without polygraphic verification, we can do no more than to speculate.

However, as stated in the introduction, thirty to forty minutes after the onset of sleep, the sleeper makes a series of body movements heralding an ascent from Stage 4 deep sleep. By recording the time at which the subject first manifested body movements each night after a

minimum elapsed time of thirty minutes following the extinction of the lights in her room, the onset of sleep can be crudely estimated, as can the first anticipated REM period of the night which, it will be recalled, typically occurs sixty to eighty minutes after sleep onset. Once these estimates have been established, subsequent nocturnal verbalizations may be analyzed for their correspondence with a hypothetical sleep cycle based on these estimates.

In the data presented in Table 2 below, the estimated time of sleep onset is simply calculated as a range spanning the time of night falling within a period of at least thirty to not more than forty minutes prior to the time at which the first appropriate body movements occurred each night. Similarly, the estimate of the first REM period of the night is based upon a range of times spanning a period beginning sixty minutes subsequent to the earliest estimate of sleep onset and ending eighty minutes subsequent to the latest estimate of sleep onset.

Table 2. Ranges of times delimiting estimated onset of sleep and initial REM period on nights containing nocturnal verbalizations.

<u>Night</u>	<u>Lights Out</u>	<u>Body Movements</u>	<u>Sleep Onset</u>	<u>1st REM</u>
6	2:37am	3:12am	2:37-2:42am	3:37-4:02am
7	2:58am	4:03am	3:23-3:33am	4:23-4:53am
8	3:02am	3:50am	3:10-3:20am	4:10-4:40am
10	2:56am	3:43am	3:03-3:13am	4:03-4:33am
11	3:36am	4:12am	3:36-3:42am	4:36-5:02am

Based upon the estimates described in Table 2, Subject 1's nocturnal verbalizations (see Appendix E) may be speculatively analyzed as follows:

Night 6: The first episode occurs within the estimated limits of the first descending NREM sleep of the night. Episode 2, on the other hand, coincides with the first anticipated REM period of the night. Episode 3, occurring sixty-eight minutes later, also would appear to fall within the acceptable, fluctuating range (seventy to 110 minutes, it will be recalled) separating REM periods in the sleep cycle, allowing room for error since it is not known whether Episode 2 occurred at the beginning, middle, or end of a REM period.

Night 7: The first four episodes fall outside the estimated range qualifying these phenomena as the products of nocturnal dreams. Consequently, they are perhaps better conceptualized as hypnogogic imagery. Episode 5 occurs considerably earlier than the first estimated REM period but significantly later than the estimated onset of sleep which, given its content and the context in which it occurred (see Appendix E) makes it likely that this verbalization was a NREM manifestation of a dream occurring in response to, and constituting an integration of, external stimulation.

Night 8: Episode 1 falls outside the estimated range of sleep onset and is therefore better conceptualized as hypnogogic imagery. Episode 2 begins just before the earliest estimate of sleep onset but by allowing room for error, particularly in light of the transformation from the third person descriptions of Episode 1 to the first person descriptions of Episode 2, this episode, as well as Episodes 3, 4, and 5 would appear to be a function of descending NREM sleep. Episodes 6 and 7 both fall within the limits of the first estimated REM period and would seem to be related verbalizations arising out of a single dream.

Episode 8 also falls within the estimated range of the first REM period but is separated from Episodes 6 and 7 by too great a margin of time to make it likely that both Episodes 6/7 and Episode 8 were REM related. At the very least, however, they both appear to be the products of sleep-related mental phenomena.

Night 10: Given the estimated range of sleep onset, as well as their static, third person content, it would appear that Episodes 1-4 are hypnagogic fantasies occurring in the "twilight zone" during which the transition is made from Stage 0 wakefulness to Stage 1 NREM sleep. Episodes 5 and 6, accordingly, seem likely to have been the products of descending NREM sleep. Episode 7, on the other hand, appears to be an ascending NREM verbalization, as do Episodes 8 and 9. Given the subject's report that she awakened "every hour" or so on Night 10, Episodes 7, 8 and 9, which occurred virtually one hour apart from one another, may also have been associated with these unusual "dream awakenings."

Night 11: Each of the episodes fall easily beyond the estimated range of sleep onset, all appearing to be the products of NREM descending sleep.

Content analysis

As can be seen by studying the verbatim transcripts of Subject 1's nocturnal verbalizations (Appendix E), the range of content contained therein included third person descriptions of static visual imagery associated primarily with products speculatively analyzed to be manifestations of hypnagogic fantasies, first person accounts of kinetic, fantasied vignettes or dramas in which the subject was either a participant

or observer, associated primarily with the products speculatively analyzed to be manifestations of descending NREM dreams, and truncated phrases of several types that apparently run the gamut from integrated responses to external stimuli to verbalized fragments of conversations transpiring in dreams (all of which are far too brief to constitute illuminating dream descriptions), primarily associated with the products speculatively analyzed to be manifestations of REM or ascending NREM dreams.

In order to assess the effects of differing circumstances of observation on the content of dream reports, Experimenters 1 and 2 independently rated the content of the subject's three sets of dream questionnaires (one set obtained during the week following the group hypnosis screening, one set obtained during the week prior to the first night spent in the sleep lab, one set obtained during the twelve mornings on which the subject awakened in the lab) as well as the content of her nocturnal verbalizations. Using three subscales contained within Hall and Van de Castle's (1966) empirical classification system for scoring the content of dreams, the subject's verbal reports were rated for the presence of sexual interactions, aggressive interactions, and emotions. These three variables were selected because they are especially susceptible to censorship on theoretical grounds, which makes them ostensibly sensitive to the effects of anxiety on reported or remembered dream content.

As the results presented in Table 3 clearly suggest, interpersonal anxiety seems to play a critical role in the nature of the content elicited under the four different circumstances of observation. That

is, Subject 1 reported almost twice as many incidents containing sexual, aggressive, and emotional content in her dream questionnaire during the week following the group hypnosis screening, when she had no inkling that she would later lose her anonymity, than she manifested in her nocturnal verbalizations, which contained only the second greatest number of scored incidents despite the fact that these verbalizations contained a much greater number of words than her post-screening dream questionnaire.

Table 3. Total number of mutually agreed upon independently scored incidents of sexual interactions, aggressive interactions, and emotions appearing in the content of dream reports elicited under different circumstances of observation.

<u>Source</u>	<u>Sex</u>	<u>Aggression</u>	<u>Emotions</u>	<u>Total # of Words Reported</u>
Post-Gp. Hyp. Quest.	3	2	4	570
Pre-Lab Quest.	0	1	3	470
Nocturnal Verb.	1	0	4	895
Sleep Lab Quest.	0	2	0	451

What Table 3 does not reveal is the fact that each of the dreams reported in the post-screening questionnaire contained at least one, and generally two, scored incidents, whereas scored incidents did not appear in the subject's nocturnal verbalizations before Night 8, with the one scored sexual interaction not appearing until Night 11. These results, in addition to those appearing in Table 3, again suggest that as long as the subject was not engaged in an interpersonal relationship with the experimenters, her dream reports were subject to a lower level of anxiety and consequent censorship than they were once a relationship

had been entered into. Nevertheless, it would seem that the development of the subject's relationship with Experimenter 1 was one increasingly based on trust and rapport, so that by the later stages of her participation in the project, the subject's interpersonal anxiety had diminished sufficiently so as to weaken her defenses somewhat under circumstances involving apparently little or no waking ego involvement (nocturnal dream verbalizations), although the nature of her waking dream recall, or more appropriately the lack thereof, during the week prior to the sleep lab and the twelve mornings on which she awakened in the lab, suggest the presence of other sources of anxiety affecting her performance that will be discussed later. What should be pointed out in this regard at the present time is the fact that all of the scored incidents reported in the subject's pre-lab questionnaire occurred on the first night she responded to the questionnaire and thus were as far removed from her participation in the sleep lab as was possible. Furthermore, it should be pointed out that the aggressive content scored in the dream material reported in the sleep lab questionnaire was of the lowest intensity scorable and appeared only on Night 10, already identified as an atypical night and one occurring during the latter stages of the subject's participation in the project.

Finally, it should be reported that the level of interjudge reliability for scoring the content of Subject 1's dream reports and nocturnal verbalizations was sufficiently high for research purposes, reaching an 87% overall level of agreement for the total combined number of incidents scored within each of the three categories (a seemingly inflated level of agreement that is actually not unusual in light of the

small number of incidents scored) and a 75% overall level of agreement for the types of incidents scored in accordance with the procedures presented by Hall and Van de Castle for calculating reliability figures.

Conclusions

Perhaps the most obvious conclusion that can be drawn from the data presented is that the subject's participation in the project constituted for her a significant, powerful, and affectively charged life experience which must be taken into account in order to adequately conceptualize her responses to the experimental treatments and related tasks.

Subject 1's responses to the initial dream questionnaire, which followed the group hypnosis screening, have already been analyzed in detail. What has not been discussed is her failure to recall any dream content on the five mornings immediately preceding her first night in the sleep lab after having reported fairly detailed content on seven of the previous nine mornings she had been requested to do so. Given her considerable anxiety regarding her upcoming participation in the sleep lab, especially when viewed in the context of her opening night attempts to induce Experimenter 1 to throw her out of the project, her sudden "inability" to recall any dream content prior to beginning her participation in the sleep lab is perhaps conceptualized better as an over-determined passive-aggressive form of resistance, particularly in light of the subject's later "confession" that she had originally agreed to participate in the project, despite her misgivings, in response to a feeling of guilt that was stimulated by her perception that if she had declined my offer to become a subject during the recruiting meeting, she would have been letting me down, something she dared not do.

Forced to assume responsibility for her guilt-induced behavior by my unwillingness to cancel her participation in the project, it would seem that the conflicts creating her anxiety (guilt) and supporting her behavior were not only activated, but brought to the fore, both by her lengthy commitment to the project and by the repeated introspections or self-analyses she was asked to undertake throughout the duration of her stay in the lab. Given a supportive environment in which to begin to explore the foundations of these conflicts in the sleep lab, the subject not only experienced personal growth but also came to increasingly trust Experimenter 1 and, perhaps, to develop elements of a positive transference relationship with him. Consequently, it would seem, despite the activation of considerable performance anxiety engendered by the administration of the posthypnotic suggestions contained within Treatments B and C, the subject made efforts, with apparent success, to execute the sleep talking task suggested in response to Treatment C.

Nevertheless, she also failed to recall any dream content upon awakening in the morning following the administration of the experimental treatments designed to elicit the target behavior. I would conceptualize this failure to recall dream content as a function of repression that was most likely activated as a defense against anxiety associated with the subject's low self-esteem and her related fear that she would not "perform up to expectations." In other words, if she did not experience any dreams during the night (i.e. recall any dreams in the morning) she would be well defended against any "failure" to execute the posthypnotic suggestion. Similarly, her posthypnotic "amnesia," exhibited for virtually all her experiences occurring under hypnosis (but which later decayed

after the project concluded), may also be conceptualized as repression activated by overdetermined sources of anxiety.

Given this frame of reference, I would conclude that the subject's atypical performance on Night 10, during which she both manifested nocturnal verbalizations and awakened several times to recall dreams, was the result of a special unconscious motivation to please Experimenter 1 in spite of her performance anxiety, coming as it did on the first opportunity the subject had to execute the posthypnotic suggestion after her cathartic experience on Night 9, for which, it will be recalled, she thanked Experimenter 1 profusely.

In any case, the results of Subject 1's participation in the project suggest, though not conclusively, that both hypnogogic and dream-related verbalizations can be induced through the use of hypnosis with a highly susceptible subject to varying degrees of success that are dependent upon a complex interacting matrix of variables related to procedure, practice effects, personality, the interpersonal relationship between the subject and the experimenter(s), and undoubtedly other factors not clearly seen or understood at this time. On a more general level, we have also gathered further evidence supporting the hypothesis that the circumstances of observation play a critical role in the nature of the data obtained in dream research, for the contents of dreams are oftentimes emotionally cathected derivatives that are not frequently made easily accessible to scientific observation.

On a more specific level, what is not clearly understood at this time is the mediating role played by hypnosis in the elicitation of the various types of nocturnal verbalizations manifested by the subject.

Since the most illuminating, lengthy, and descriptive verbalizations were those occurring early in the night, verbalizations speculatively analyzed to be the products of hypnogogic fantasy or descending NREM sleep, it is difficult to know whether the subject's ability/willingness to verbalize was primarily a function of her suggestibility/motivation under hypnosis or whether the production of the reported early nocturnal imagery itself was enhanced by an overlapping hypnotic influence (subjects often report that hypnosis seems to stimulate the production of visual imagery), despite the fact that Experimenter 1 suggested to the subject that she would "fall asleep naturally." In any event, there is no evidence suggesting that these two possible explanations need be mutually exclusive and it is entirely possible that there was an interaction effect.

Finally, it should be noted that the subject encountered considerably more difficulty verbalizing REM dreams than she did verbalizing the phenomena described above, which may have been a function of the suppression of voluntary muscle activity that occurs during REM sleep and which may also account for the fact that spontaneous sleep talking occurs in vivo much more frequently during NREM sleep.

Subject 2

General Background Information

Subject 2 was a 19 year old first year male undergraduate from suburban Detroit majoring in finance. Reared in an upper income family along with one brother and one sister, Subject 2 was the least demanding and most hypnotically susceptible subject of the three who participated in the project. Friendly, outgoing, cooperative, and conscientious

throughout his participation, the subject spent considerably more time asleep in the lab than had Subject 1 and rarely used the lab as a place to study. Arrangements were made with the subject on a daily basis to specify a time each night that he wished to be picked up at his dormitory by Experimenter 1.

Night 1

Background information

Appearing outwardly relaxed upon meeting Experimenter 1 at his dormitory on Night 1, the subject described his feelings regarding his first night in the sleep lab as, "None really. I'm just going to take things as they come with no preconceived notions."

Upon arriving at the lab the subject retired to his room for about five minutes to unpack his belongings. After administering all of the preliminary procedures unique to Night 1, Experimenter 1 administered Treatment A in its original form, i.e. with the subject reclined in the overstuffed chair, reasoning that to conduct a hypnotic induction with the subject in bed during the earliest stages of his participation in the project without giving our relationship an adequate opportunity to develop would be unnecessarily anxiety arousing. Although the subject did display some signs of anxiety when he suddenly developed a "frog" in his throat for which he required a glass of water immediately after being told that we were ready to begin the hypnotic induction, the treatment proceeded with exceeding ease, as eye closure was achieved within an astonishing forty-five seconds.

Throughout the administration of the treatment the subject appeared to be deeply hypnotized, manifesting no spontaneous motor activity with the exception of slow, rolling side to side head movements that appeared during the subject's preliminary hypnotic dreams (although not during the preliminary free imagery tasks). There were no signs of resistance to the administration of any of the preliminary imagery tasks; to the contrary, the subject would raise his hand indicating that an image or dream had appeared in his mind's eye instantly each time that Experimenter 1 reached the count of 3/5. Interestingly, unlike Subject 1, there was a decided qualitative difference in the imagoic phenomena produced by the subject in response to the preliminary free imagery and hypnotic dream suggestions respectively, the difference being that the subject's free imagery was invariably described in the third person, much as one might describe a scene they were observing, whereas the subject's hypnotic dreams were primarily described in the first person from the vantage point of a participant in a drama, frequently ceasing to become descriptions per se as the subject would drift into conversations with characters in his dreams whose responses or ends of the conversation were never revealed.

Upon concluding the preliminary imagery tasks the subject was administered the posthypnotic suggestion for rapid induction, which he received without any observable reaction. After being awakened from his hypnosis the subject did not at any time spontaneously allude to any of the hypnotic procedures but simply readied himself for bed, after which the electordes were attached uneventfully, and the lights turned out.

Results

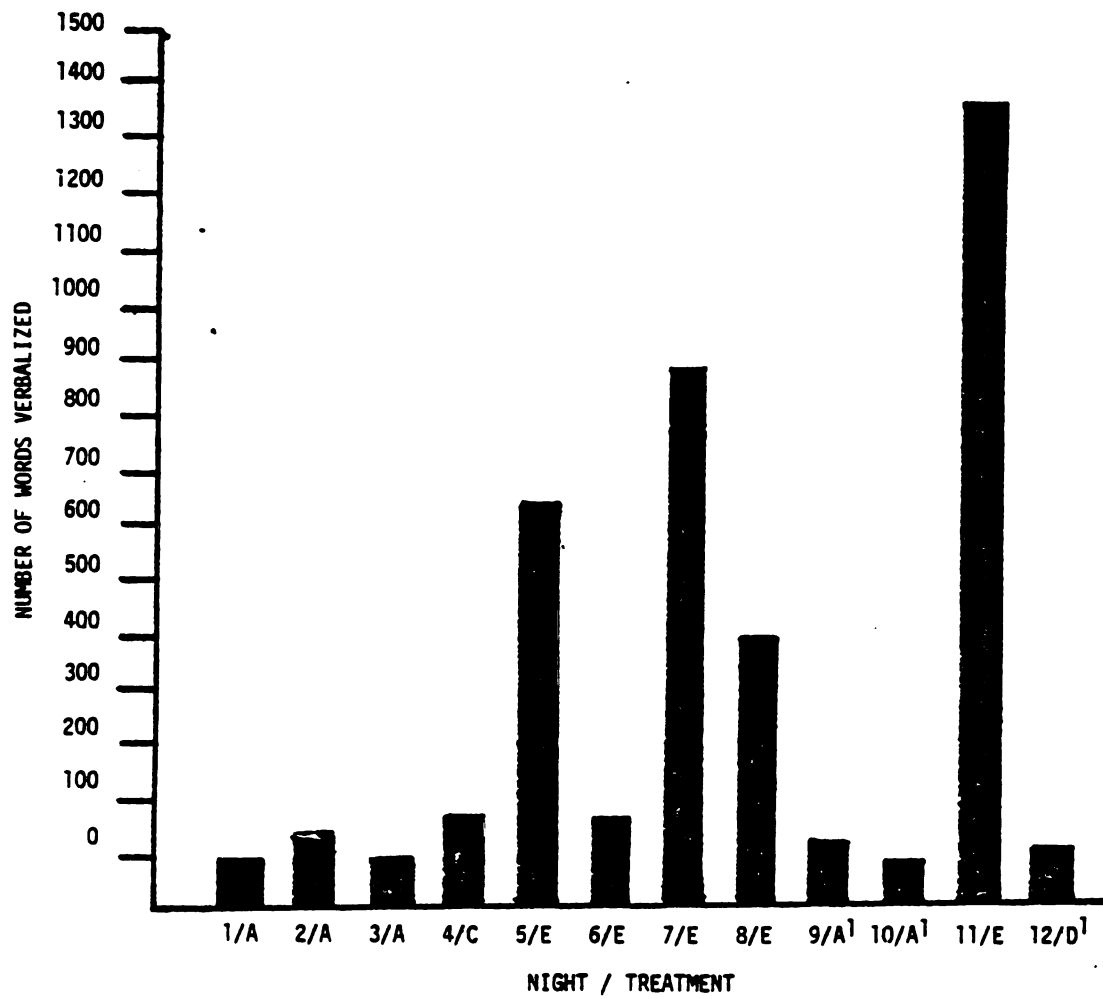
As can be seen in Figure 2 (see page 77), Subject 2 failed to manifest any nocturnal verbalizations during Night 1 despite the fact that he had informed me during the recruiting meeting, upon reading the statement informing him that he would be "miked," that his roommates have told him that he occasionally talks in his sleep, typically within the first two hours following bedtime. Reporting that he had slept "well" during the night despite encountering some difficulty falling asleep, the subject stated that he had awakened at 5am, at which time he took it upon himself to write down the first three dreams reported in his Night 1 dream questionnaire. Thereafter, the subject awakened on four additional occasions, recalling at least one of the remaining five dreams reported in his questionnaire each time he awakened (Dreams 5 and 6 having both been recalled during a single awakening), although he did not write these dreams down until after the alarm had rung in the morning.

Night 2

Background information

Stating that he was in a "fine" mood at the outset of Night 2, the subject was in a talkative frame of mind and spontaneously shared with Experimenter 1 phenomenological features of his previous subjective experiences under hypnosis prior to being administered Treatment A a second time. Specifically, the subject reported that during the administration of the hypnotic induction on Night 1, he spontaneously visualized an image of a white feather rocking gently side to side and floating down against a black background, while numbers that I counted out loud

Figure 2. Effects of different experimental treatments on production of nocturnal verbalizations (Subject 2).



as part of the depth enhancement procedure "rolled up behind the feather like credits at the end of a movie. I am the feather." Adding that when aroused from Night 1's hypnosis he felt "relaxed, yet extremely exhausted, as though I had just done a great deal of work," the subject also noted that during the hypnosis his body felt so heavy that "I thought it should have hurt but it didn't" and that he found the individual hypnotic induction "magnifies the feeling of hypnosis about 25,000 times" over that which he experienced during the group hypnosis screening.

As he had done so during the recruiting meeting, the subject once again informed Experimenter 1 that his roommate reports that he talks in his sleep unintelligibly "about once every week or so," a phenomenon that the subject is completely unaware of as it occurs.

After completing our discussion the subject was hypnotized, with Experimenter 1 employing the rapid induction procedure for the first time. Again the administration of all procedures associated with Treatment A progressed exceedingly well, the subject achieving eye closure by the count of five and actually manifesting slow, rolling side to side eye movements and myoclonic jerks during the administration of the depth enhancement procedures. Although there was less of a distinction between his free imagery and hypnotic dreams than had been the case the previous night, the subject occasionally drifted into conversations during the latter task and his fantasy process did not appear to be impeded in any obvious way by unusually heavy automobile traffic and loud trains passing by outside the lab which created a great deal of noise. After being aroused from hypnosis, the subject made no references whatsoever to any of the hypnotic procedures and the remainder of the treatment proceeded uneventfully.

Results

Somewhat surprisingly, although less so given the fact that he had a history of spontaneous sleep talking, the subject manifested two discrete episodes of nocturnal verbalizations comprising a grand total of fifty words during Night 2, both occurring within the first two hours of the night. Both episodes were verbalized with rapid speech, one apparently constituting a string of nonsense syllables, the other a seemingly confused, thought-like verbalization characteristic of NREM dreams. Reporting that he slept "fine" during the night, the subject acknowledged that he had awakened once at 5:50am, when he wrote down the first dream appearing in his dream questionnaire, but that he had no recollection of having awakened at any other time. All told, the subject recalled three dreams on his dream questionnaire, the last two of which were written after the alarm clock had awakened him in the morning.

Night 3

Background information

In contrast to the previous two nights, the subject was in a "rotten" mood at the outset of Night 3, having lost a ring of great personal significance to him earlier that day. Stating, "I'm not really depressed, I just don't give a fuck," the subject then launched into a diatribe against this roommate, whom he dislikes a great deal ("tactless and unsophisticated").

Shortly thereafter the subject was ready to begin the hypnotic induction and Treatment A was administered as before. Manifesting the slow, rolling eye movements and myoclonic jerks even earlier than he had before during the administration of the depth enhancement procedures,

Subject 2 responded to the preliminary imagery tasks essentially as he had done so previously without any difficulty whatsoever. Once again, he made no spontaneous reference to any of the hypnotic procedures after his arousal from hypnosis.

Results

As he had done so during Night 2, the subject once again manifested two discrete episodes of nocturnal verbalizations on Night 3, although the two episodes comprised a grand total of only two words. Again the subject reported that he had slept "fine" and that he had awakened at 5:35am, at which time he wrote down the first of three dreams that appear in his dream questionnaire for the night.

Night 4

Background information

Although he had found his ring earlier in the day the subject was in a "perfectly rotten" mood again on Night 4, having had a conflict earlier with his roommate regarding a breach of confidence. As had been the case with Subject 1, Subject 2 expressed a desire to talk about his conflict(s) prior to beginning the administration of the nightly experimental procedures and I accommodated his request as I had also done so with Subject 1. During the course of our conversation, the subject revealed that he was actually experiencing a conflict regarding his inability to confront his roommate on a variety of issues, of which the breach of confidence had been but one example. Free associating from one problematic area to another, the subject also discussed his parents' shaky marriage before stating that he was ready to begin the hypnotic induction, by which time his mood had improved markedly.

Although the subject had spoken on Nights 2 and 3 following the administration of Treatment A, there was a sharp diminution in the magnitude of the phenomena on Night 3 (virtually replicating the results of Night 1) which, according to the logic of the time-series design, made Night 4 an acceptable night for introducing a treatment designed to affect an experimental manipulation, particularly in light of the subject's history of sleep talking, which made it likely that his verbalizations on Night 2 were isolated and spontaneous incidents that were not made in response to Treatment A. Having attained success only with Treatment C during Subject 1's participation in the project, it was decided that Treatment C would constitute the first experimental manipulation attempted with Subject 2, time constraints giving priority to the further development of a treatment already demonstrated to have elicited an effect.

As had been the case with Subject 1, Subject 2 was also informed that we would be performing a "new experiment" on Night 4 in conjunction with the procedures already described for the administration of Treatment C and was offered the same rationale given Subject 1 for the change in procedure. Accepting the explanation offered without any apparent difficulty, the subject readied himself for bed, after which the electrodes were attached and the hypnotic induction begun. Once again the treatment, including the administration of the Treatment C posthypnotic suggestion, proceeded smoothly and uneventfully, replete with what had come to be the expected slow, rolling side to side eye movements and myoclonic jerks.

Results

In response to the administration of Treatment C, Subject 2 manifested four discrete episodes of nocturnal verbalizations comprising a grand total of sixty-five words. In contrast to the seemingly spontaneous verbalizations manifested during Night 2, the subject's verbalizations during the first two episodes on Night 4, which both occurred within the first fifteen minutes of the night, were first person accounts of dramas in which the subject was clearly a participant/observer.

More importantly, these first two episodes were heavily laden with several symptoms of anxiety and seemed to constitute symbolic and even direct portrayals of conflicts the subject might have been experiencing in response to the administration of Treatment C. A reading of the transcripts from Night 4 does not adequately reveal the distress that the subject appeared to be in, which caused the experimenters to experience considerable anguish and concern regarding the subject's well-being.

Equally distressing were the facts that the subject both failed to recall any dream content upon awakening in the morning for the first time since he had begun his participation in the project and awakened feeling and appearing so fatigued (with dark circles under his eyes) that he elected to skip his morning classes. It will be noted that both these phenomena parallel the responses made by Subject 1 following the administration of treatments designed to affect an experimental manipulation. The subject was puzzled by his sudden fatigue, stating that he invariably awakens refreshed in the morning given the same amount of sleep and noted that he did not feel this way on any of the three previous mornings on which he had awakened in the lab.

Adding that he seemed to fall asleep unusually fast on Night 4, the subject noted that he had not awakened at any time during the night, made no reference to any of the hypnotic procedures, and appeared to be amnesic for the administration of the posthypnotic suggestion in the face of a few oblique inquiries made by Experimenter 1 in the morning.

Night 5

Background information

Despite the experimenters' concerns for the subject's well-being he described his mood on Night 5 as "exquisite." Cheerful and chatty on the ride to the lab, the subject retired to his room to study for twenty minutes before signalling that he was ready to begin the night's hypnosis.

Earlier in the day, Experimenter 1 had reviewed the subject's distressing verbalizations in an effort to determine whether or not his distress had been related to Treatment C. Based upon the subject's statement, "I'm so confined," his painful experience with the witch (whose name rhymed with Experimenter 1's last name), and his frank declaration, "I'm not going to do this," Experimenter 1 concluded that the wording of the posthypnotic suggestion contained in Treatment C constituted a series of authoritarian commands that both denied the subject autonomy and aroused considerable anxiety. It should be noted that this is essentially the same conclusion reached by Subject 1 regarding the Treatment C posthypnotic "suggestion," although she shared her conclusion with Experimenter 1 during her follow-up interview which occurred some time after Experimenter 1 had concluded the same on Night 5 without the benefit of her input.

In response to these conclusions Experimenter 1 completely revamped the wording of the posthypnotic suggestion once again, developing in the process a new posthypnotic suggestion designed to place heavy emphasis on the dignity and autonomy of the subject and designed to constitute a more egalitarian approach to the attempted elicitation of the target behavior. Designated Treatment E, the new procedure was administered exactly the same way as Treatment C had been administered, with the exception that Experimenter 1 stated the following after the completion of the final preliminary imagery task:

_____ (S's name), during the past five nights you have been developing a remarkable ability to both talk and dream at the very same time. In fact, you have demonstrated to me that you are fully capable of describing your dreams out loud as they occur without interfering with them and without waking up. As a scientist, I find this ability of yours to be especially exciting because it grants me the rare privilege of observing the normally private world of dreaming in action. I thank you for having shared this private world of yours with me, because without your willingness, motivation, and trust, this kind of research would be completely impossible.

Tonight, if you are willing, I propose that you and I try to break new ground in dream research by working together with your newly developed abilities. Tonight, after you fall asleep, I'd like you to keep on describing your dreams out loud each time that they occur. However, since I know how private and personal the dream world is, I realize that you can only share your dreams with me if you choose to do so. Tonight, if you are willing, I'd like you to tell the microphone above your head, as best you can, exactly what you see whenever a dream or dream-like image comes into your mind's eye, no matter how deeply asleep you may seem to be. This may not be easy to do, but I am confident that if you choose to do so there is a good possibility that you will be able to find a creative way to automatically tell the microphone whatever you see in your mind's eye without waking up and without disrupting your sleep, each time that a dream or dream-like image makes its appearance.

The two most important things to remember tonight are that first and foremost, your dreams belong to you and can only be shared if you choose to share them, and second, if you do choose to share them I only ask that you suspend judgment and be completely honest in describing what you see.

To repeat, if you are willing to share your private world of dreaming tonight, I would like you simply to tell the microphone whatever you see each and every time that a dream or dream-like image appears in your mind's eye, from the time that you fall asleep until the alarm clock rings at _____ o'clock in the morning. The only thing that matters is that you simply describe your dreams to the best of your ability without trying to evaluate or be critical of your performance. No matter what you choose to do tonight, I want you to know that your efforts are greatly appreciated and that whatever you decide to do will be OK with me. Do you have any questions about anything I have just told you? (Questions were to be answered at this point.)

OK, I'm now going to turn out the lights and leave the room. Once I leave, you will fall asleep quite naturally without any difficulty whatsoever. Remember, you have nothing to worry about or fear because your dreams belong to you and I will share with you anything that you might say in your sleep tonight. Have a pleasant night's sleep and I'll see you in the morning.

All aspects of the administration of Treatment E proceeded as smoothly as the procedures administered the previous four nights. Moreover, I experienced a decided feeling of warmth and relief while administering the posthypnotic suggestion that brought into bold contrast previously subliminal (repressed?) feelings of anxiety that I suddenly became aware of having previously felt throughout the project up to this point.

Results

In a highly productive display, the subject manifested ten discrete episodes of nocturnal verbalizations comprising a grand total of six hundred forty-five intelligible words. More dramatically, the subject spontaneously recalled the administration of the posthypnotic suggestion upon awakening in the morning, stating, "I tried to talk last night but it was all going by too fast. I couldn't talk that fast." Without at any time revealing to him that he had in fact spoken during the night, Experimenter 1 pressed for more details, the subject responding, "I only

remember feeling that I wanted to talk whenever I dreamed last night but I couldn't because it was all going by too fast." Asked by Experimenter 1 whether he had any idea if he had been asked to speak on previous nights, the subject stated, "It's like I knew before you asked me the question that you had previously asked me to talk...but I wasn't aware of it until now. It's like I knew but I didn't know."

In response to other inquiries made by Experimenter 1, the subject reported that it "seemed" to him that he fell asleep "instantly" after the experimenter left the room on Night 5, that he recalled dreaming "a lot" early in the night but could not recall any content, and that unlike yesterday morning (Day 4) he did not now feel fatigued but felt "just great, like I'm ready to go out and kill the world."

Finally, the subject recalled two dreams which he remembered and wrote down upon awakening around 5:20am. This was the only time the subject could recall having awakened during the night.

Night 6

Background information

Stating that he was in a "good" mood at the outset of Night 6, the subject reported that although he wasn't sure that it was important to the research, he thought that he should tell Experimenter 1 that he had watched pornographic films for "two and one half hours" immediately prior to coming to the lab.

Since the subject now had conscious knowledge of both the post-hypnotic suggestion and, presumably, the purpose of this investigation, Experimenter 1 answered in the affirmative when the subject asked if the same experiment from the previous night was going to be repeated,

reassuring the subject not to worry if the dream seemed to be "going by too fast," in which case he was instructed simply to describe whatever he could to the best of his ability.

Repeating the administration of Treatment E on Night 6 (with minor modifications made in the transitional phrases in order to make it more appropriate for a second reading--none of the key instructions were altered), Experimenter 1 encountered no observable signs of resistance, and the treatment proceeded as smoothly as any of the others previously administered.

Results

Although the subject once again manifested nocturnal verbalizations in response to Treatment E, his productivity was sharply curtailed when compared with that of the previous night. Manifesting seven discrete episodes comprising a grand total of fifty-seven words, the subject once again reported in the morning that he had no idea whatsoever as to whether or not he had spoken during the night. Adding that he had slept "fine as usual" during the night, and that he was quite certain that he had fallen asleep "instantaneously," the subject went on to report that he hadn't felt as powerful an urge to speak during his dreams on Night 6 as he had on Night 5. Once again, the subject was able to recall two dreams upon awakening in the morning, both of which he wrote down at that time (after the alarm had rung that is), noting that he could not recall any awakenings during the night prior to the time that his alarm clock rang in the morning.

Night 7

Background information

Reporting that he was in a "good" mood at the outset of Night 7, the subject stated that he had recalled one of his preliminary hypnotic dreams from the previous night earlier in the day immediately after being introduced to an individual who had in fact appeared in the hypnotic dream, which the subject was now able to recall with considerable accuracy. Prior to the administration of Treatment E, Experimenter 1 and Subject 2 talked for nearly forty-five minutes about the scientific need for the subject to be objective and honest in his dream reports as well as the need to report any forms of anxiety, resistance, special interest/motivation, and/or pressure he might experience at any time during the remainder of his participation in the project. Throughout the course of this discussion the subject expressed considerable enthusiasm and interest in the project now that we were obviously working more closely together, a direct consequence of the evaporation of the subject's previous posthypnotic amnesia. Interestingly, the subject revealed during this discussion that he had felt "scared to death" when initially telephoned to make arrangements for the recruiting meeting, had felt the same during the meeting itself, but that his "curiosity" about the project had motivated him to participate. Finally, the subject reported upon inquiry that he experienced his dreams in the sleep lab as "identical" to those experienced at home and that whenever he stated that he fell asleep "instantly," he meant "within one or two minutes at the very most."

Once again Treatment E was administered on Night 7 without any observable signs of resistance or anxiety.

Result

Exceeding his productivity of Nights 5 and 6 combined, the subject manifested eight discrete episodes of nocturnal verbalizations comprising a grand total of eight hundred ninety-one intelligible words, including one episode in which his whispered speech was so garbled as to be unintelligible (and hence not included among the intelligible words tallied). Insisting once again upon awakening in the morning that he had no idea whatsoever as to whether or not he had spoken during the night, the subject reported that he had fallen asleep "within two minutes, I would guess," that as he was falling asleep he remembered seeing an image of "being in a tunnel and falling with lights whizzing by at a very fast pace," that he thought he may have had "a couple dreams" shortly after falling asleep but that he could not recall any of their content, that he did not awaken at any time during the night, and that he had slept "fine."

Once again the subject recalled a dream upon awakening to the sound of his alarm that he wrote down on his dream questionnaire at that time.

Night 8

Background information

Again reporting that he was in a "good" mood on Night 8, the subject noted that he had once again spontaneously recalled a preliminary hypnotic dream from Night 7 earlier in the day when he saw a group of Palestinians protesting on campus (his dream had occurred in Paris where, peculiarly, he had noticed Arabic writing on the Eiffel Tower). The subject also reported that every time he had seen a flag pole during the day, it

somehow seemed important although he didn't know why (one of his hypnotic images from the night before had focused on a flag pole).

For nearly one hour prior to treatment the subject and Experimenter 1 talked, during which time the subject once again expressed enthusiasm for, and interest in, the project. He also reported that he was finding out that hypnosis was really a phenomenon over which he had control (not the hypnotist), which in turn was teaching him "a great deal about myself." Furthermore, he stated that the design of the sleep lab had made his experience much less threatening than it might have been otherwise ("It seems like a small hotel room, not like a lab or hospital room at all"), praised Experimenter 1 for his "thoroughness, friendliness, and professionalism," and indicated that his participation in the project seemed to disturb all but one of his friends ("How can you let someone fuck with your mind like that?"). Fortunately, the subject's one unperturbed friend was actually quite enthusiastic about the project and the subject shared his experiences with him on a daily basis.

Adding just prior to the hypnotic induction that he felt like a "full partner" of Experimenter 1's, the subject expressed a desire to meet with the other subjects participating in the project once their participation was over in order to "share experiences." As an interesting side note the subject also reported at this time that he was "sure" that Experimenter 1 repeated the numbers 23 and 26 when counting during the hypnotic depth enhancement procedure and that this "disturbed" him. In fact, Experimenter 1 did not repeat these two numbers which, incidentally, happened to be the ages of the subject's sister and brother, respectively.

Once again, Treatment E was administered without any difficulty whatsoever, the fourth consecutive administration of the treatment which was administered one more time than might have been the case otherwise because of the sharp diminution of productivity manifested on Night 6.

Results

Manifesting eleven discrete episodes comprising a grand total of four hundred eighteen intelligible words in response to Treatment E, the subject once again displayed considerable productivity even though he did not approach his more prodigious output of Nights 5 and 7. Estimating that he once again had fallen asleep "instantly," the subject did not know that he had spoken during the night, did not recall having awakened at any time during the night, and reported one brief dream fragment upon awakening, although he also reported, "I know I was having a dream when the alarm went off but it (the alarm) just erased it all."

Night 9

Background information

Although the subject called from Detroit at 9:15pm, after having been called out for a medical emergency involving his sister, he was picked up at his dorm at midnight and was in "good" spirits since all had ultimately turned out well. Without much preliminary discussion, the hypnotic induction was administered shortly after arriving at the lab. Having demonstrated an effect in response to Treatment E on

Nights 5-8, the posthypnotic suggestion was withdrawn and Treatment A¹ administered without incident.

Results

Even though the posthypnotic suggestion had been withdrawn, the subject manifested six discrete episodes of nocturnal verbalizations comprising a grand total of thirty-six words. Estimating that it had taken him "one or two minutes" to fall asleep, the subject, as usual, had no awareness that he had actually spoken during the night but noted in response to Experimenter 1's inquiry that he had assumed the task for Night 9 had been the same as always since, "To the best of my knowledge, nobody told me otherwise." A bit fatigued in the morning following his hectic night commuting between East Lansing and Detroit, the subject initially failed to recall any dream content upon awakening, but recalled a full blown dream memory while showering that he wrote down shortly thereafter.

Night 10

Background information

Having reported that he had assumed the task on Night 9 to have been the same as that on the nights immediately preceding, it was evident that the subject's nocturnal verbalizations on Night 9 were a function of the demand characteristics that had been newly created by the decay of his original posthypnotic amnesia and consequent awareness of the true purpose of his participation in the project. Consequently, the simple withdrawal of the posthypnotic suggestion did not sufficiently alter the demand characteristics to prevent the subject from attempting

to execute what he perceived to be the task at hand, although it engendered a sharp diminution in his productivity.

Therefore, an attempt was made on Night 10 to alter the demand characteristics conceptualized to have been the variables mediating the subject's verbalizations on Night 9. Reporting that he was in an "excellent" mood on Night 10, the subject was instructed in the waking state immediately prior to the hypnotic induction not to describe any dreams or dream-like imagery after the lights had been turned out in his room until his alarm rang in the morning, at which time he was instructed to verbalize any dream memories from the night that he could remember in place of the usual written dream recall elicited via the morning-after dream questionnaire. Stating upon inquiry that he clearly understood the instructions, Subject 2 thereafter was administered Treatment A¹ once again, encountering no difficulty in executing any of the procedures relevant to the treatment.

Results

As expected, the subject failed to manifest any nocturnal verbalizations in response to the modified administration of Treatment A¹ described above. As had also been expected, he executed the complementary portion of the instructions administered in the waking state, recalling four dreams verbally upon awakening in the morning.

Night 11

Background information

As the subject's verbalized recall of Dream 2 on Morning 10 (see Appendix F) suggests, the lack of feedback regarding his performance

each night seemed to be creating anxiety that in retrospect appeared to have been developing over the previous five nights. After arriving at the lab on Night 6 with full awareness of the true purpose of the research in response to the "egalitarian" Treatment E posthypnotic suggestion, the subject had asked for feedback regarding his performance, since he in fact had no awareness of having spoken or not spoken during the night. In response to the subject's request, Experimenter 1 had told the subject that feedback would be provided at some point during the project before his participation ended but that for the time being, with the subject's permission, he would prefer to withhold feedback in order to have the opportunity to more adequately test the effects of the subject's verbalization-specific amnesia. Although the subject agreed to wait for feedback, professing complete understanding of the rationale necessitating the delay, his sharply diminished performance on Night 6, coupled with his related dream recall on Morning 10, suggested that the withholding of feedback had originally been, and was becoming even more, problematic.

Consequently, Experimenter 1 spent nearly an hour with the subject prior to the hypnotic induction on Night 11 fully disclosing the nature of the subject's previous performances, including the content of many of his verbalizations. The subject was both intrigued and fascinated by the feedback, oftentimes spontaneously recalling details of dreams he had verbalized upon being presented with fragmented outlines. Asked at the conclusion of this feedback session whether or not he could recall anything about the phenomenological experience of dreaming the dreams he had verbalized, the subject noted that the experience had been to the

best of his recollection identical to the experience of dreaming under more naturalistic circumstances and that he still could not recall having spoken at any time.

Given assurances prior to the hypnotic induction that anything he might say during Night 11 would be shared the next day, the subject was administered Treatment E once again without difficulty, prior to which he had also been instructed in the waking state to verbalize his dream recall upon awakening in the morning in place of the dream questionnaire.

Results

In a prodigious burst of productivity, Subject 2 manifested eleven discrete episodes of nocturnal verbalizations comprising a grand total of one thousand three hundred forty-eight intelligible words in response to Treatment E during Night 11. Once again, however, he could not recall having spoken at any time during the night. Although he recalled two dream fragments verbally upon awakening in the morning, the subject fell back asleep during the process and could not recall anything else upon being reawakened. However, during the ride back to his dorm in the morning, the subject observed a long line of cars on campus, at the head of which was a police car with its lights flashing. Suddenly reminded of a funeral procession, the subject spontaneously recalled his "funeral" dreams from the night before, although he still claimed not to have any awareness of having either spoken or not spoken during the dreams (feedback was not shared until Night 12).

Night 12

Background information

After sharing feedback with the subject regarding his performance on Night 11 and discussing a variety of topics concerning his dreams and personal life for nearly one and a half hours, Experimenter 1 reminded Subject 2 of the termination interview to be conducted the following morning. In an effort to test the effects of withdrawing hypnosis from the treatment, the subject, who was in a "good" mood, was informed of this intent, then administered the Treatment E "posthypnotic" suggestion in the waking state without any preliminary imagery tasks and with instructions not to become hypnotized at any time, which the subject informed Experimenter 1 would not be difficult to do. Prior to administering this treatment, designated Treatment D¹, the subject was informed that the dream questionnaire would be used in the morning once again to elicit waking dream recall.

Results

In contrast to the performance of Subject 1, Subject 2 manifested seven discrete episodes comprising a grand total of thirty-five words in response to the instructions administered on Night 12 without the benefit of hypnosis. Reporting that he had slept "well" during the night, the subject did not have any awareness, as usual, that he had in fact spoken. Two dream fragments were recalled upon awakening in the

morning, after which the subject prepared to move out of the sleep lab and a brief termination interview was conducted.

Termination Interview

Verifying that he had awakened on Morning 5 with full understanding of the true nature and purpose of the project, understanding that he maintained throughout the remainder of his stay in the lab, the subject was interviewed only briefly, during which time he stated that his participation seemed to have passed by very quickly. At the conclusion of the interview the subject was paid for his participation and reminded that he would be contacted shortly for a routine follow-up interview.

Follow-Up Interview

Due to conflicting schedules and final exams, it was not until four weeks after the termination interview that the follow-up interview could be conducted with Subject 2. Throughout the interview, the subject bubbled over with enthusiasm, stating that far from suffering any negative after effects from his participation in the project he had found the experience to be beneficial. Excerpts from his responses during the interview are presented below:

I'm much more aware of what I'm dreaming about now than before the experiment. Since the experiment I've been able to remember a lot more dreams if I put my mind to it. When I'm falling asleep I'm also very aware of many things running through my mind. They're not as vivid or rich or intense as under hypnosis but I'm much more sensitive to them now than I was before...

These are the things I've gained from my experience in the experiment: (1) The biggest thing is that regardless of how uptight I am I can fall right asleep. I tell myself a lot of the things you told me while hypnotizing me and...oh, it's so nice. I can put myself right to sleep. (2) This is really hard to put into words. I have a greater access to what's inside my mind, to understanding why I think about the things I think about and why I feel the emotions I feel. Picking me up (each night) was such a natural kind of thing, not like being in a lab or experimental situation, and you asked me questions about myself that I normally don't ask myself. It's so easy for me now to reach inside and pull things out that I didn't know were there before and that I didn't want to have to face--fears, anxiety, negative emotions. A new consciousness is what it is. I have a new understanding and awareness of myself. I feel more confident and I'm so much more physically energetic than before, which I attribute to having freed up so much more mental energy...Now I can cope much better.

Adding that he was "very interested" in hearing the tapes of his nocturnal verbalizations, arrangements were made with the subject to provide him access later in the summer.

Data Summary and Analysis

Treatment effects

As can be seen in the graphed results found in Figure 2 at the outset of this section, each of the treatments administered Subject 2 was associated with the manifestation of nocturnal verbalizations. As has already been discussed, the subject's verbalizations on Night 2 appear to have been spontaneous, isolated incidents not occurring directly in response to Treatment A, when viewed in the context of the subject's history of in vivo sleep talking (which, incidentally, he discussed in some detail with Experimenter 1 immediately prior to the administration of Treatment A on Night 2) and given the absence of verbalizations on baseline Nights 1 and 3.

Treatment C, as was the case with Subject 1, clearly produced an effect that was qualitatively, if not significantly quantitatively, different from the effects occurring in conjunction with Treatment A (Night 2 included). However, since it was conceptualized to have been anxiety provoking, Treatment C was replaced with Treatment E which, with the exception of Night 6, was invariably associated with a significantly greater output of nocturnal verbalizations than any other treatment. An anomaly, the subject's response to Treatment E on Night 6 may be conceptualized as passive-aggressive resistance associated with feelings of anger and anxiety that apparently were aroused by Experimenter 1's decision not to share feedback with the subject on Night 6 regarding his performance the previous night, as alluded to in the background information already detailed for Night 11. Such a conclusion is perhaps

supported by the subject's prodigious output on Night 11 following a complete disclosure of feedback regarding his entire performance in the project to that date.

The withdrawal of Treatment E on Nights 9 and 10 has already been discussed, the results of which, as stated, clearly appear to have been a function of demand characteristics created by the permanent decay of the subjects posthypnotic amnesia following the administration of Treatment E. As was the case with Subject 1, Subject 2's productivity also appears to have been a function of the combined effects of suggestions/instructions administered under hypnosis, for the results indicate that neither hypnosis alone nor suggestions/instructions administered without the benefit of hypnosis elicit as powerful an effect as when the two are combined. The nature of the effect, however, is more apparent in the results of Subject 2 than it was in the results of Subject 1, for Subject 2, unlike Subject 1, did manifest nocturnal verbalizations on Night 12 without the benefit of hypnosis, most likely a function of the task being more ego syntonic in light of the more egalitarian procedures undertaken with the subject during the preceding nights of his participation. All of the subject's verbalizations on Night 12 occurred roughly two hours or more after the lights had been turned out in his room, whereas virtually all of his verbalizations on nights he was given a posthypnotic suggestion to verbalize occurred within the first forty minutes after the lights had been turned out, just as had been the case with Subject 1. This suggests that even though the subjects may have been asleep during their verbalizations during the first forty minutes of the night, they were still under the influence of hypnosis,

which apparently had the effect of enhancing the production of visual imagery during a phase of sleep (descending NREM) that has never been associated, to my knowledge, with the florid dream imagery generated by Subjects 1 and 2 in response to Treatments C and E.

Finally, it should be reported that given the facts that there were virtually no fluctuations in the subject's self-reported mood, no anomalies in response to the preliminary imagery tasks, and only one occasion on which the subject failed to recall dream content upon awakening in the lab in the morning (a fact already accounted for), these variables had no apparent mediating effects on the variance of treatment outcome (see Table 4 below).

Table 4. Self-reported mood prior to administration of different experimental treatments, anomalies in response to administration of treatments/preliminary imagery tasks, and presence of morning-after waking dream recall.

<u>Night</u>	<u>Treatment</u>	<u>Mood</u>	<u>Anomalies</u>	<u>Recall</u>
1	A	"good"	none	yes
2	A	"fine"	none	yes
3	A	"rotten"	none	yes
4	C	"rotten"	none	no
5	E	"exquisite"	none	yes
6	E	"good"	none	yes
7	E	"good"	none	yes
8	E	"good"	none	yes
9	A'	"good"	none	yes
10	A'	"excellent"	none	yes
11	E	"good"	none	yes
12	D'	"good"	none	yes

Validity of treatment effects

Following the criteria established to assess the validity of the nocturnal verbalizations manifested by Subject 1, Table 5 is presented

below to serve as a basis from which to assess the nocturnal verbalizations manifested by Subject 2, given the fact that each of his verbalizations matched that part of the criteria stipulating that they be accompanied by an absence of external awareness in order to qualify as the products of nocturnal dreams under the operational definition presented earlier.

Table 5. Ranges of times delimiting estimated onset of sleep and initial REM period on nights containing nocturnal verbalizations

<u>Night</u>	<u>Lights Out</u>	<u>Body Movements</u>	<u>Sleep Onset</u>	<u>1st REM</u>
2	11:16pm	11:59pm	11:19-11:29pm	12:19-12:39am
3	11:19pm	12:14am	11:34-11:44pm	12:34- 1:04am
4	11:46pm	12:19am	11:46-11:49pm	12:46- 1:16am
5	11:53pm	12:28am	11:53-11:58pm	12:53- 1:23am
6	12:22pm	12:52am	12:22am	1:22- 1:42am
7	1:36am	2:08am	1:36- 1:38am	2:36- 2:58am
8	12:45am	1:17am	12:45-12:47am	1:45- 2:07am
9	12:37am	1:14am	12:37-12:44am	1:37- 2:04am
11	11:12pm	11:49pm	11:12-11:19pm	12:12-12:39am
12	11:32pm	12:46pm	12:06-12:16pm	1:06- 1:36am

Based upon the estimates described in Table 5, Subject 2's nocturnal verbalizations may be speculatively analyzed as follows:

Night 2: Episode 1 occurs within the estimated range of the first REM period of the night and, as such, would appear to be the manifestation of a REM dream. Episode 2, on the other hand, occurs, forty minutes later and, particularly given its thought-like content, is most likely a NREM (Stage 4?) verbalization.

Night 3: Episode 1 falls ten minutes beyond the latest estimated time for the onset of the first REM period of the night. Given the fact that the first REM period generally lasts for about ten minutes each night, it is entirely plausible that Episode 1 is REM-related. Episode 2, occurring 116 minutes later, falls outside the estimated range of times that would indicate it to be REM-related and is perhaps better conceptualized as a product of descending NREM sleep.

Night 4: Episode 1 begins within the estimated range of sleep onset and, along with Episode 2, appears to be the product of the first descending NREM sleep of the night. Episodes 3 and 4, on the other hand, could both conceivably be associated with the second REM period of the night, although just as conceivably one or both could also be the products of NREM sleep.

Night 5: Episode 1 begins within the estimated range of sleep onset and is consequently speculatively analyzed to be the product of the first descending NREM sleep of the night. Episode 2, on the other hand, occurs at a point which makes it likely that it is associated with the first Stage 4 NREM sleep of the night, either descending or ascending. Episode 3 appears to be the manifestation of the first ascending NREM sleep of the night, while Episode 4 falls within the estimated range of onset for the first REM period of the night. Episodes 5, 6, 7, and 8 are each potentially associated with the second REM period of the night, although it is unlikely that all four episodes are the manifestations of this particular REM period, given the forty-six minute range separating Episodes 5 and 8. Episode 9 is conceivably a product

of the third REM period of the night while Episode 10 appears to be a response to an external stimulus.

Night 6: Episodes 1 and 2 both occur after the estimated onset of sleep and are speculatively analyzed to be the products of the first descending NREM sleep of the night. Episodes 3, 4, and 5 also appear to be NREM products, with Episodes 6 and 7 conceivably the manifestations of the second and third REM periods of the night respectively.

Night 7: Episodes 1-4 all occur within or beyond the estimated range of sleep onset and are therefore speculatively analyzed to be the products of the first descending NREM sleep of the night. Episode 5 appears to occur during the first ascending NREM sleep of the night while Episode 6, if in fact the subject was verbalizing a dream and not a statement of fact, may be associated with the first REM period. Episodes 7-9 could be either REM or NREM products.

Night 8: Episodes 1-4 all match the criteria speculatively qualifying them as the products of the first descending NREM sleep of the night. Episode 5 qualifies as a potential Stage 4 NREM product. Episode 6 falls within the estimated range of the first REM period of the night. Episode 7 appears to be a product of the second ascending NREM phase of the night while Episodes 8 and 9 both would seem to be associated with the second REM period of the night. Similarly, Episodes 10 and 11 appear to be manifestations of the third REM period.

Night 9: Episode 1 speculatively qualifies as a product of the first descending NREM sleep of the night. Episode 2 is likely a Stage 4

NREM verbalization. Episode 3 appears to occur during the second descending NREM phase of the night while Episodes 4 and 5 are both potentially associated with the second REM period of the night. Finally, Episode 6 qualifies as a potential product of the third REM period.

Night 11: Episode 1 appears to encompass virtually the entire range of the first descending NREM sleep of the night. Episode 2 appears to be an ascending NREM response to an external stimulus. Episode 3 falls within the estimated range of onset for the first REM period of the night. Episode 4 qualifies as a potential product of the second REM period. Episode 5 appears to be NREM-related, Episodes 6 and 7 conceivably the products of the third REM period. Episode 8 qualifies potentially as a manifestation of the fourth REM period of the night. Episode 9 appears to be a NREM or REM response to an external stimulus, while Episodes 10 and 11 may also be associated with a lengthy fourth REM period.

Night 12: Episodes 1-3 each qualify as products of the first REM period of the night, although it is unlikely that all three actually occurred during that first REM period, given the twenty minute span between Episodes 1 and 3. Episode 4 qualifies as a product of the second descending NREM phase of the night. Episode 5 similarly appears to be NREM related as do Episodes 6 and 7.

Content analysis

As can be seen by reviewing the transcripts presented in Appendix E, the content of Subject 2's nocturnal verbalizations was richly varied,

ranging from nonsense syllables, to emotional drams, to whimsical vignettes. Furthermore, these verbalizations were laden with primary process representations, secondary process thoughts, foreign languages, and numerous indicants of affect and anxiety not specifically manifested in the content per se (such as outbursts of crying, gravelly sounding speech, and other inflections of the voice that make these data so much richer than waking dream recall despite the fact that these indicants are not scorable according to the Hall and Van de Castle system of empirical content analysis).

As had been the case with Subject 1, those verbalizations manifested by Subject 2 that were speculatively analyzed to have been the products of descending NREM dreams were primarily first person accounts of kinetic, fantasied vignettes or dramas which also encompassed revisualizations of events from the subject's past (including an apparent age regression on Night 11). In yet another parallel to the results yielded by Subject 1, Subject 2 also manifested nocturnal verbalizations speculatively analyzed to be the products of NREM and REM sleep occurring more than forty minutes after the extinction of the lights in his room. Again, these products largely consisted of truncated phrases of very brief dream excerpts that apparently ran the gamut from responses to external stimuli, to verbalized fragments of conversations, to partial dream descriptions, virtually all of which were far too brief to shed light on the overall dream context within which they were or might have been embedded.

What was unique to Subject 2 was his propensity for shedding the role of participant/observer during his nocturnal verbalizations, particularly those occurring during the first descending NREM sleep of

the night, in favor of the role of pure participant in his dreams, in which case he would simply act out (verbalize) his end of the verbal interactions transpiring in his dreams without regard for grounding or describing these interactions in context, making them true in-process verbalizations in the strictest sense of the concept. The nature of these in-process verbalizations does not readily accommodate itself to the Hall and Van de Castle system of content analysis, as stated above, particularly when attempting to account for the presence of affect that is not specifically labelled as such in the verbal content manifested by the subject (for example, a squeal of delight accompanying an in-process verbalization is not accounted for in Hall and Van de Castle's system which was designed to empirically score and analyze written dream material in which a scorable response might be something along the lines of, "I felt delighted to see her").

Consequently, the data presented in Table 6 below to assess the effects of the circumstances of observation on the content of dream reports does not include numerous unlabelled manifestations of affect and anxiety expressed by Subject 2 during his nocturnal verbalizations.

Table 6. Total number of mutually agreed upon independently scored incidents of sexual interactions, aggressive interactions, and emotions appearing in the content of dream reports elicited under different circumstances of observation.

<u>Source</u>	<u>Sex</u>	<u>Aggression</u>	<u>Emotions</u>	<u>Total # of Words Reported</u>
Post Gp. Hyp. Quest.	2	2	10	652
Pre-Lab Quest.	0	3	4	589
Nocturnal Verb.	0	18	12	2967
Sleep Lab Quest.	1	5	2	1403

In sharp contrast to Subject 1, Subject 2 manifested over twice as many scored incidents during his nocturnal verbalizations than he did in his post-group hypnosis screening dream questionnaire (which contained the second highest number of scored incidents), despite the fact that numerous unlabelled manifestations of affect and anxiety expressed by the subject during his nocturnal verbalizations were excluded from the tally presented in Table 6. Even on a percentage basis, controlling for the number of words contained in their respective nocturnal verbalizations, Subject 2's verbalizations contained nearly twice as high a percentage of scorable incidents as did Subject 1's verbalizations, a figure which is actually conservative given the numerous affective manifestations not scored in Subject 2's protocol.

On the same percentage basis, Subject 2's dream questionnaire from the week following the group hypnosis screening contained the greatest density of scorable incidents by more than a two to one margin over any of the other circumstances of observation, replicating the findings obtained with Subject 1. Again, while this suggests that the inhibiting forces of interpersonal anxiety were largely absent during the period of anonymity that followed the group hypnosis screening, but present during all other data gathering phases of the project, it must be pointed out that only the three sets of dream questionnaires are directly comparable to one another in an analysis based upon an incidents/words percentage, for the dream questionnaires are dream summaries whereas the nocturnal verbalizations are essentially manifestations of the products summarized in the questionnaires themselves. In other words, the difference obtained between the incidents/words percentages

associated with Subject 2's post-group hypnosis dream questionnaire and his nocturnal verbalizations (.0215 and .0101 respectively) may be an artifact of the significantly fewer number of words necessarily reported under the former format (not to mention the numerous "unscorable" affective manifestations that were not included in the calculation of the figure for the latter format).

Taking this into consideration, it would appear that, as was the case with Subject 1, sexual content was the variable most susceptible to censorship following the presumed activation of interpersonal anxiety associated with the loss of anonymity (two orgies appearing in the subject's post-group hypnosis questionnaire, no sexual content reported in any of the other formats with the exception of one low intensity incident involving sexual innuendo, recalled by Subject 2 upon one of his morning awakenings in the sleep lab). However, the subject's apparent inhibitions regarding the expression of aggression appear to have been suppressed during his nocturnal verbalizations, for his verbalizations are replete with aggressive interactions of a mostly moderate to low level of intensity. This is especially interesting in light of the subject's comment, described earlier, that he had a great deal of difficulty expressing himself on the "rare" occasions when he felt angry, something with which he encountered apparently little difficulty during his frequently aggressive nocturnal verbalizations.

Finally, it should be noted that the subject's morning-after dream recall in the sleep-lab had the lowest incidents/words percentage of any of the four formats, as was also the case with Subject 1, suggesting again that this was the most psychologically threatening circumstance

of observation among the four created by this investigation. In closing, it should also be reported that the level of interjudge reliability for scoring the content of Subject 2's dream reports reached an 84% overall level of agreement for the total combined number of incidents scored within each of the three categories and a 76% overall level of agreement for the types of incidents scored.

Conclusion

Perhaps the two most striking features of Subject 2's participation in the project were his richly varied, oftentimes lengthy nocturnal verbalizations and his waking knowledge of the posthypnotic suggestion (and, consequently, the true purpose of this investigation) following the administration of Treatment E. The decay of his previous post-hypnotic amnesia again suggests, as was conceptualized in the case of Subject 1, that posthypnotic "amnesia" is better conceptualized in the case of Subject 2 as repression activated unconsciously by the need to defend against anxiety aroused by the authoritarian behavior of Experimenter 1 during the administration of Treatment C. Consequently, the subject's high level of productivity, along with the lifting of his repression regarding the posthypnotic suggestion, would appear in this frame of reference to be a function of diminished anxiety which seemingly occurred when the nature of the hypnotic relationship between the subject and experimenter became more egalitarian and less authoritarian following the administration of Treatment E.

Most likely, personality differences between Subjects 1 and 2 also contributed to some degree to the quantitative/qualitative differences in the output of their respective nocturnal verbalizations, for whereas

Subject 1 was primarily painfully shy and withdrawn with low feelings of self-esteem, Subject 2 was considerably more outgoing, affable, and ostensibly self-confident (although as his statements during the follow-up interview suggest, he actually gained a great deal of self-confidence as a result of his participation in the project). Nevertheless, despite these personality differences, it would seem that productivity is more powerfully influenced by variables associated with the relationship between the subject and the experimenter, and its myriad sequellae, for we observe fluctuations in the subjects' performance that are not adequately explained by simple practice/learning effects and/or personality assessments, but which lend themselves more readily and satisfactorily to dynamic conceptualizations based on variables such as motivation, anxiety, and trust, for example, that appear to be largely (though not exclusively) a function of the subject's relationship with the experimenter.

Clearly, our attempts to subvert the subjects' intrapsychic defenses, through deceptive procedures designed to elicit relatively uncensored in-process dream descriptions by theoretically enhancing the likelihood that the subjects would manifest and maintain a posthypnotic amnesia, turned out to be counterproductive, stimulating, instead, anxiety and even greater defensiveness on the part of the subjects. Defensiveness regarding the sleep talking task itself was apparently only reduced after measures were undertaken to modify the relationship within which the execution of the task was embedded. Once accomplished, Subject 2 demonstrated that even though he had waking awareness of the task and, apparently, waking interpersonal and/or intrapsychic anxiety regarding

his dream content, based upon the low level of scorable sexual, aggressive, and emotional content contained in his morning-after sleep lab dream questionnaire, his defensiveness regarding all but sexual content was blunted during sleep, as evidenced by the high level of aggressive and emotional content (both scorable and unscorable) that appeared in his nocturnal verbalizations, all of which were speculatively analyzed to have occurred during sleep, a fact which might account for the subject's invariable lack of awareness (despite the decay of his posthypnotic amnesia) of the fact that he had spoken repeatedly throughout the duration of his participation in the project. That defensiveness regarding sexual content was not effectively blunted during sleep suggests a considerable degree of sleeping ego involvement mediating the perception of nocturnal dreams and is not surprising from either a cultural/sociological point of view, which still regards sex in a largely defensive manner, or from a more intrapsychic/interpersonal point of view pertaining to Subject 2 in particular, given certain information he shared in this regard with Experimenter 1.

These issues aside, it is evident that the subject's experience as a participant in the project had a powerful impact upon him, as it also had on Subject 1, once again suggesting that it is unlikely that dreams can be effectively and scientifically investigated by researchers who have little or no regard for assessing either the personal significance these phenomena have to their subjects or for assessing the impact of their own investigative procedures.

Subject 3General Background Information

Subject 3 was a 19 year old first year female undergraduate from western Michigan majoring in pre-med with a core program in psychology. The most demanding (yet enthusiastic) and psychologically conflicted subject of the three who participated in the project, Subject 3 was reared, along with three siblings (an older brother and two younger sisters), in a family whose father she described as "an alcoholic" and whose mother she characterized as overly critical and domineering. Also the least hypnotically susceptible of the three subjects, Subject 3 engaged in a nightly ritual during her participation in the sleep lab phase of the project in which she would set her stuffed teddy bear on a chair next to her bed, attach a small stuffed toy raccoon to the microphone, and beginning midway through her participation in the lab, would also prop up a framed photograph of her boyfriend on the nightstand (invariably on the portable cassette tape recorder used during the preliminary hypnotic imagery tasks), place an artificial rose in a white ceramic vase next to the photograph, and suspend a card, portraying a dying Ophelia lying in a pool of water, above her bed.

Although each of the three subjects who participated in the project expressed the desire to discuss issues related to personal conflicts on one or more occasions during the twelve nights they spent in the sleep lab, Subject 3 did so much more frequently than the others, stating, "I've waited a long time to find someone who was willing to listen to me."

Finally, it should be noted that Subject 3 had been maintaining a daily dream journal since the time of her participation in the group hypnosis screening, giving her considerably more experience at morning-after waking dream recall than either of the other two subjects who participated in the project. Furthermore, the subject spontaneously reported during the recruiting meeting that she had a history of sleep talking that included many recent episodes. During the recruiting meeting she also became the first of the three subjects to express the desire to meet with the other subjects participating in the project.

Night 1

Background information

Stating that she was "depressed" at the outset of Night 1 because she had been falling behind in her schoolwork, Subject 3 professed that she had no feelings about spending her first night in the lab, noting that she hadn't had time to think about it since she was constantly consumed by "other issues," such as her schoolwork. Complaining at length about her depression ("Tonight I feel like I almost hate myself") prior to arriving at the lab, the subject then made several disparaging remarks about her family, her boyfriend, and finally, the lab itself after our arrival. In the midst of these complaints she "introduced" me to her teddy bear (named after her boyfriend), making a point of informing me that the hat "he" was wearing was his very own "and nobody else's."

After unpacking her belongings, the subject indicated that she was ready to begin the first night's hypnosis. Treatment A was administered without difficulty or incident, the subject responding to the preliminary

hypnotic imagery tasks quickly, after which she received the posthypnotic suggestion for rapid induction without any observable signs of resistance. After being aroused from hypnosis the subject reported that an image had spontaneously appeared in her mind's eye during the hypnotic induction, an image of herself sinking slowly through a "warm, dark ocean" with Experimenter 1 standing above the water talking down to the sinking subject, his voice becoming more and more muffled the deeper she sank. By the conclusion of the depth enhancement procedures, the subject reported, she had settled comfortably into the "silt at the bottom of the ocean." At one point she reported having experienced anxiety as the thought occurred to her that "there are sharks in the ocean." However, she decided, "This is my ocean and there are no sharks here."

Each night that hypnosis was administered to Subject 3 she reported experiencing the image of herself sinking into the ocean, an image that prompted her to purchase the card of Ophelia alluded to earlier, which she noted, symbolized the hypnotic image itself.

Results

Within one minute following the extinction of the lights in her room Subject 3 began a revealing monologue that continued non-stop for forty-three minutes. Admittedly, and quite obviously, not asleep throughout her monologue, the subject revealed through its course her considerable anxiety regarding her participation in the project, her immaturity, and her constant need (manifested ceaselessly throughout the duration of her participation in the project) to impress the experimenters with her creativity and knowledge (particularly her limited knowledge

about sleep research), a need later acknowledged by the subject as symptomatic of deep seated, long standing feelings of low self-esteem.

After finally falling asleep, the subject awakened at 3:30am, at which time she wrote down the dream reported in her dream questionnaire for Night 1. After finishin- her report, the subject once again resumed a monologue that lasted for eleven minutes, although it was whispered so softly as to be completely unintelligible. Again, the subject acknowledged that she had been awake throughout the duration of this second monologue, spontaneously reporting its occurrence in response to non-directive inquiries made by Experimenter 1 in the morning. Not surprisingly, given her active night, the subject also complained in the morning, "I'm so tired now I can't think straight."

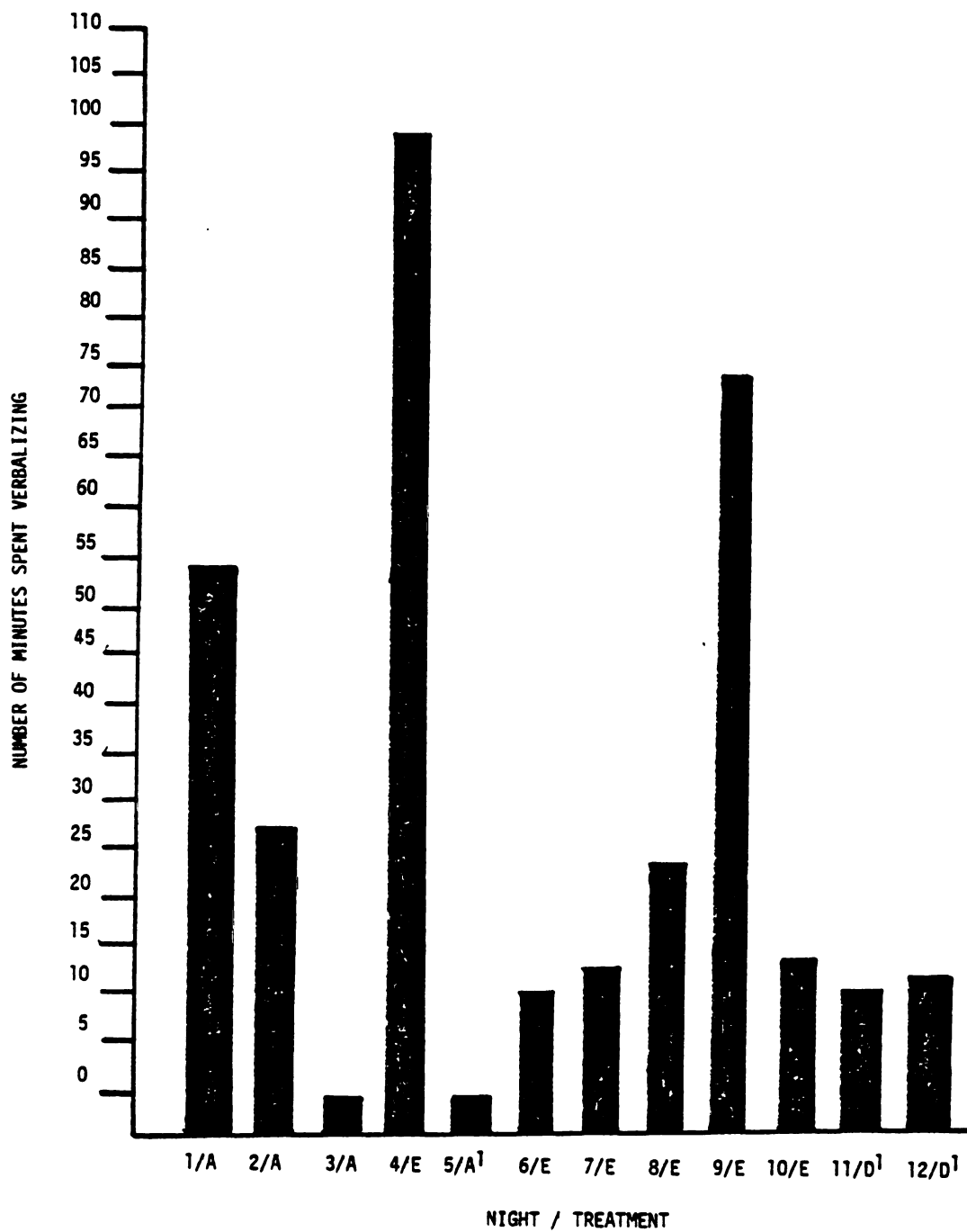
Given the fact that there were several occasions on which Subject 3 verbalized unintelligibly at considerable length, her night-by-treatment productivity is presented in Figure 3 on the next page in terms of the total combined number of minutes contained in her nightly episodes of nocturnal verbalizations, an episode being operationally defined as an event in which the subject manifested nocturnal verbalizations containing periods of silence lasting no longer than sixty consecutive seconds.

Night 2

Background information

Reporting that she was in a "good" mood at the outset of Night 2, the subject made note of the fact that her participation on Night 1 had left her "so tired" in the morning that she had napped for several hours on two separate occasions earlier in the day. Before beginning the

Figure 3. Effects of different experimental treatments on production of nocturnal verbalizations (Subject 3).



hypnotic induction, the subject expressed "skepticism" about the effectiveness of the rapid induction procedure, indicating that she was the only subject of the three not to manifest a spontaneous posthypnotic amnesia following the administration of the Treatment A baseline procedures, suggesting further that she was in fact considerably less susceptible to hypnosis than either Subject 1 or Subject 2. I later asked Subject 3 about her experience during the group hypnosis screening, at which time it became apparent that her score of twelve on the Harvard Scale was an artifact, for the subject acknowledged that it had been "extremely important" to her that she demonstrate both to me and to herself that she was "as highly susceptible as possible." During subsequent nights of her participation in the sleep lab following Night 2 the subject displayed spontaneous motor activity during hypnosis that added further evidence to my reassessment of her hypnotic susceptibility, which I ultimately assessed to be moderate at best.

Immediately prior to the hypnotic induction on Night 2, the subject also asked numerous rhetorical questions about delta waves, sleep stages, and electroencephalography, seemingly intended to impress Experimenter 1 with the subject's knowledge.

Despite her skepticism, the subject achieved eye closure by the count of five and experienced no difficulty executing any of the preliminary hypnotic imagery tasks (it will be recalled that the execution of hypnotically induced dreams is considered to be of only moderate difficulty).

After being aroused from hypnosis the subject readied herself for bed, appearing in a skimpy "baby doll" nightgown when the experimenters

re-entered her room to attach the electrodes, a nightgown which the subject reported she was wearing to "ease the pain" of a sunburn she had gotten while lying in the sun earlier in the day. After the electrodes were attached, the subject suddenly stated that she was feeling "hyper," just as she had felt on Night 1 immediately prior to the time at which the lights were turned out. Not yet ready to fall asleep, the subject requested time to write in her journal, a request which naturally was granted. After writing in her journal for twenty minutes, the subject signalled that she was finished, at which time the lights in her room were turned out.

Results

Almost immediately after the lights were turned out on Night 2 the subject apologized for her previous night's monologue, stating, "I guess I just took advantage of the situation," after which she remained silent until 3:32am. At 3:25am the subject awakened and wrote down each of the three dreams appearing in her dream questionnaire for Night 2. After finishing her written report, the subject returned to bed and, despite her apology at the outset of the evening, began another monologue that was spoken in a whisper and which lasted twenty-six minutes.

After being awakened by the alarm in the morning, the subject fell back asleep almost immediately. Half an hour later she was reawakened by Experimenter 1, at which time she could recall no dreams other than those recorded earlier in the night. Once again she also acknowledged that she had been fully awake during her verbalizations following her

nocturnal awakening. Questioned by Experimenter 1 about her monologue in the face of her apology at the outset of the evening, the subject reported that she perceived the experimenters to be interested in her and that whenever she gets "the slightest indication that anybody is interested in me, I take advantage of the situation and just share everything and anything that's on my mind."

Finally, it should be noted that during the twenty minute period that the subject spent writing in her journal immediately prior to the extinction of the lights in her room on Night 2, she also wrote the following piece, which she left on the bedside table in the morning "hoping" that it would be picked up by Experimenter 1;

Poe

All my days are trances,
 and all my nightly dreams
 are where thy dark eye glances
 and where thy footstep gleams;
 in what ethereal dances,
 by what eternal streams...

mine...

My mind is lost on a field
 where the wind overall is supreme

Would that I could
 be like the rock who is stable
 even as the wind
 torments the grasses with it's indecision

But a reed I am;
 and so influenced by the passions
 of the breeze that bends me
 and tests my sinews,
 that sometimes I feel
 that I must break

Night 3

Background information

Because she had an appointment late in the evening near the Olin Health Center on Night 3 the subject walked to the sleep lab rather than opting for a ride. Reporting that she was in a "good" mood at the outset of the evening, the subject engaged Experimenter 1 in a forty minute discussion about her family demographics and dynamics prior to initiating the hypnotic induction, stating at one point that even though she is the second oldest of four children, "I'm really like the oldest because my brother is irresponsible and I had to look out for my sisters."

Once again the subject was administered Treatment A without difficulty or incident, reporting upon inquiry following the depth enhancement procedures that she was "settled into the silt up to my eyes," an imagoic experience that she later likened to her perception as a child that the safest place in the world was bed, especially with the sheets pulled up to her eyes.

Results

In contrast to the results of Nights 1 and 2, the subject did not manifest any nocturnal verbalizations on Night 3. Nevertheless, she did awaken on two occasions (4:40am and 5:21am), after both of which she wrote in her dream questionnaire. Upon awakening in the morning the subject could not recall precisely which portions of her total report she had written on each of her awakenings, nor could she recall any other dream content. However, later in the day she wrote a great

deal more that is included with her waking dream recall in Appendix F. Although she reported that she had slept "well" during the night, the subject also complained that she was feeling "quite tired" shortly after awakening, just as she had done so on Morning 1.

Night 4

Background information

Reporting that she was feeling "depressed" at the outset of Night 4 as the result of conflicts she was experiencing with her boyfriend at home, conflicts that had been activated by a telephone conversation with him earlier in the evening, the subject poured forth a veritable torrent of associated material for nearly two hours prior to initiating the hypnotic induction. In particular, she touched upon her father's "alcoholism," her mother's disparaging impressions of the subject's intelligence ("You're not really very intelligent. Everything you've accomplished has been because you've just worked hard"), the trauma her sisters are suffering at the hands of her parents' poor relationship, her very low feelings of self-esteem, her overwhelming feelings of competitiveness with virtually everyone she meets (and her associated need to constantly impress others), the difficulty she encounters allowing herself to cry ("When I do finally let myself cry I can't stop myself. I'm afraid it'll go on forever"), and her feelings that she is both "weak" and unloveable.

Needless to say, it was a very delicate proposition for Experimenter 1 to avoid entering into a clinical or counseling relationship with the subject in the face of the material she presented. In any case, she

was permitted to free associate, with relatively little feedback or input from Experimenter 1, until she had exhausted her immediate need to do so, at which point she remarked with tears in her eyes, "I've been waiting to talk to you like this ever since our (recruiting) meeting earlier this year."

Given the fact that the subject had obviously failed to manifest any nocturnal verbalizations pertaining to hypnogogic or dream imagery during baseline Nights 1, 2, and 3, despite her lengthy monologues on Nights 1 and 2, Night 4 had been selected as the first night to administer Treatment E in an initial attempt to elicit the target behavior (Treatments B and C having been eliminated from the remainder of the project by Experimenter 1 in consultation with Dr. Aniskiewicz because of ethical concerns on the part of both investigators regarding the apparently needless and counterproductive provocation of anxiety seemingly engendered by these two "authoritarian" treatments). Nevertheless, Experimenter 1 was concerned about the subject's emotional state following her discussion/free association and inquired as to whether or not she wished to proceed with Night 4 as originally planned, reassuring the subject that the project had enough flexibility built in to accommodate a few nights in which no "experiments" might be undertaken. In response to Experimenter 1's inquiries, the subject reported that she felt "much better" than she had at the outset of the evening and wished to proceed "as usual." Experimenter 1 then introduced the "new experiment," explaining the rationale behind the procedure involving the administration of the hypnotic induction in bed exactly as he had done so with Subjects 1 and 2. Subject 3 accepted the rationale with equanimity and then prepared

herself for bed, after which the electrodes were attached and Treatment E administered without difficulty or incident.

Results

In a truly prodigious output, Subject 3 manifested five discrete episodes of nocturnal verbalizations comprising a grand total of one thousand one hundred twenty-six intelligible words, a figure which does not account for seventy three minutes of whispering that was of such a low volume as to be completely unintelligible. The bulk of that which could be understood occurred during the first twenty-four minutes of the night and was clearly imagoically related, in contrast to the subject's monologues on Nights 1 and 2. Furthermore, the subject manifested a verbalization that was apparently a derivative of an unconscious psychological conflict and which was accompanied by a great deal of dystonia and anxiety. Nevertheless, the subject acknowledged in the morning that not only was she fully aware of the posthypnotic suggestion that had been administered on Night 4 but that she had also been awake during Episodes 1, 4, and 5, the last two of which occurred following a spontaneous awakening at 4:00am. Asked how she felt about the suggestion and the sleep talking task, the subject replied that she was "excited" by the prospect of working together with Experimenter 1 on something that might prove useful to science. Asked what might have motivated her to talk for so long while awake when the instructions clearly stated that she should verbalize her dreams and dream-like imagery after she had fallen asleep, the subject replied that it was difficult for her to "know when I'm asleep" and that she had therefore consciously elected to speak while awake, reasoning that she would

continue, thereafter, to speak during sleep without having to assess whether or not she was actually asleep at any given moment. Furthermore, the subject also stated that she had understood the instructions to mean that she was expected to speak continuously, non-stop throughout the entire night and that anything less would constitute a "failure" on her part, although she acknowledged once she had shared these perceptions with Experimenter 1 that all of this "doesn't now make any sense."

Given the performance anxiety the subject evidently experienced on Night 4, it is not surprising that she awakened during the night and spoke thereafter for nearly an hour. Nor is it surprising that the subject awakened to her alarm in the morning feeling fatigued and unable to recall any dreams from the night, for she could not have slept for more than four hours.

Night 5

Background information

Reporting that she was "not feeling very good" at the outset of Night 5, the subject added that she had attempted to nap earlier in the day but only "tossed and turned for half an hour." Stating, "I'll be surprised if I'm not sick by the end of this experiment," a statement which had a great deal of impact on Experimenter 1 in light of the subject's remark during her monologue on Night 2 that "I'm very rarely sick. I can think I won't get sick and I don't...", the subject then launched into a series of complaints regarding the project which, she stated, was "depriving" her of her sleep "because I'm supposed to talk all night long and I have to get up to write down my dreams in the middle of the night." Reminded by Experimenter 1 that she had never

been instructed or requested to "talk all night long," a misunderstanding or misperception on her part that had seemingly (though obviously not actually) been clarified on Morning 4, and that she had taken it upon herself to write down her dreams in the middle of the night, since she had only been requested to do so after she had awakened in the morning, the subject was informed that her good health was necessary to the continuation of her participation in the project and that she was therefore specifically requested by Experimenter 1 not to talk or write down her dreams at any time during Night 5, from the time that the lights were extinguished in her room until the alarm clock rang in the morning.

As may be evident at this point to the discerning reader, the subject's behavior elicited something of a negative countertransference reaction in Experimenter 1 who, throughout the duration of the subject's participation in the project (including those nights preceding Night 5), attempted to process and conceptualize, with the assistance of Experimenters 2, 4, and 5, fairly frequent feelings of anger aroused by the subject's oftentimes demanding behavior in an effort to work through those aspects of his anger related to countertransference, which, had it remained largely unrecognized, might have impaired Experimenter 1's inherently imperfect ability to make objective observations beyond any semblance of scientific acceptability.

In any case, the subject's complaints provided Experimenter 1 with an opportunity to administer a modified version of baseline Treatment A¹, modified in the manner done so with Subject 2 on Night 10 of his participation in the project when, for different reasons, it also became

necessary to instruct the subject in the waking state not to verbalize anything during the night.

Subject 3 appeared to accept Experimenter 1's statement regarding her health at face value and at no time gave any observable indication that she was either aware of Experimenter 1's feelings of anger or that his reminders regarding the nature of the posthypnotic suggestion and dream questionnaire instructions were in any way unsettling. To the contrary, the subject seemed reassured by the experimenter's concern for her well-being and health and was administered Treatment A¹ without encountering any difficulty whatsoever during the execution of the preliminary hypnotic imagery tasks.

In closing, it should be noted that Night 5 was the night on which the subject supplemented her nightly decorative ritual with the photograph of her boyfriend, the card of Ophelia, and a stuffed toy rabbit, heretofore unmentioned.

Results

As expected, Subject 3 failed to manifest any nocturnal verbalizations or even awaken on Night 5. Reporting that she was feeling "quite good" after awakening in the morning, the subject both looked and expressed that she was feeling more rested and refreshed than she had felt previously. Furthermore, the subject found herself capable of recalling her dreams upon awakening in the morning once again, spending more than thirty minutes to complete her dream questionnaire.

Night 6

Background information

As she had done so on Night 4, the subject once again poured forth a great number of concerns, conflicts, and feelings to Experimenter 1 prior to beginning the hypnotic induction on Night 6. Although most of what she revealed recapitulated her statements made on Night 4, the subject added one new note of significance, stating, then elaborating upon, the fact that she has a great deal of anxiety and "fear" regarding sex.

After exhausting her need to discuss these issues once again, the subject readied herself for bed. The electrodes were then attached and, prior to beginning the hypnotic induction, Experimenter 1 summarized and discussed the gist of the Treatment E posthypnotic suggestion (which he was to administer on Night 6) with the subject in an effort to clarify once and for all any misunderstanding regarding the procedure. Once again the subject expressed her concerns about having to make the distinction between sleep and wakefulness, requesting that she be permitted to verbalize her waking imagery as she fell asleep in order to relieve her of this burden. Naturally, her request has accommodated and given sanction, after which Treatment E was administered without difficulty or incident.

Results

In response to the modified version of Treatment E administered on Night 6 (modified in that it was preceded by the waking summary just described), Subject 3 manifested seven discrete episodes of nocturnal

verbalizations comprising a grand total of fifty-four intelligible words, a figure that is far below the number actually spoken. Nevertheless, virtually all of the words verbalized during Night 6 were done so during Episodes 1 and 7, both of which the subject acknowledged to have occurred while she was awake, Episode 7 occurring after the subject awakened just prior to the time at which the alarm had been set to ring in the morning.

Volunteering that "I feel surprisingly good this morning" when Experimenter 1 entered her room to remove the electrodes, the subject once again was able to recall dream content upon awakening, which she wrote in her dream questionnaire immediately thereafter.

Night 7

Background information

Shortly after being picked up at her dormitory on Night 7 the subject stated that she wished to know whether or not she had spoken in her sleep during Night 6. Experimenter 1 responded that the data had not yet been analyzed adequately, but that based upon crude informal estimates there was a possibility that the subject had spoken in her sleep. Despite the cautious, conservative way in which this feedback was phrased, the subject interpreted it as an unqualified endorsement of her ability to manifest in-process dream verbalizations, exclaiming with obvious excitement, "Great! I wasn't sure that I was capable of doing it."

Upon arriving at the lab, the subject unveiled the artificial rose and vase alluded to earlier, which she now added to her nightly

decorative ritual. Prior to beginning the hypnotic induction the subject revealed that she had been encountering social pressure from friends and acquaintances regarding her participation in the project ("You're letting them mess with your mind"), just as had been the case with Subject 2. The subject also noted that she had napped twice earlier in the day, during both of which she had dreamed vividly.

Immediately prior to beginning the hypnotic induction the subject expressed anxiety about her performance on Night 6, requesting feedback from Experimenter 1 as to what would constitute "a good performance." Experimenter 1 emphasized that not only was this exploratory research for which there was no established normative data from which to assess a subject's performance, the only matter of importance in any case was that the subject simply try to execute the suggested tasks to the best of her ability. Following this interaction the subject was administered Treatment E without difficulty or incident.

Results

Although virtually all of her speech on Night 7 was whispered unintelligibly, Subject 3 manifested five discrete episodes of nocturnal verbalizations comprising of a grand total of twenty-five intelligible words in response to Treatment E. Once again, however, she acknowledged that she was awake and aware that she was speaking "the first ten minutes or so" of the night, although a speculative analysis based on her body movements during the night suggests that she did not fall asleep any sooner than twenty-five minutes following the extinction of the lights in her room, which would indicate that virtually all of her speech occurred while she was awake.

Reporting that she felt "tired" in the morning even though she had slept "well," the subject once again recalled dream content upon awakening that she wrote in her dream questionnaire, both in the lab and at home later in the day.

Night 8

Background information

Reporting that she was feeling "depressed" at the outset of Night 8, the subject briefly discussed with Experimenter 1 a conflict she was experiencing regarding the men in her life prior to beginning the hypnotic induction. Following this discussion, the subject once again requested feedback regarding her performance. Experimenter 1 informed the subject that while he did not know whether or not the subject was actually asleep when she spoke during the night, since the data had not yet been analyzed, the subject invariably spoke more during the early stages of the night and considerably less so during the later stages of the night. Asked what he meant by later stages of the night, the experimenter responded, "Say roughly 4am or later," a seemingly innocuous statement that, as will be seen, took on great importance for the subject. After sharing this feedback, Treatment E was administered once again without incident.

Results

Manifesting four discrete episodes of nocturnal verbalizations comprising a grand total of eleven intelligible words, the subject completely reversed her former pattern, remaining silent until she awakened precisely at 4am, at which point she wrote in her dream

questionnaire for fifteen minutes, after which she returned to bed and whispered unintelligibly for twenty-three minutes, a period during which the subject later acknowledged she had been awake (Episode 1). Upon awakening in the morning (and, subsequently, later that day) the subject wrote additional material in her dream questionnaire and, upon inquiry, reported that she had no awareness of having spoken at any time other than during the period following her 4am awakening. During the ride back to her dorm in the morning the subject pressed Experimenter 1 for feedback regarding the performance of the other subjects who had already participated in the project, as well as feedback regarding her performance the night before. Pointing out that to share feedback regarding the performance of others would run the risk of biasing the subject, Experimenter 1 declined the subject's first request. Told that she may have spoken at times other than those of which she had been aware (no deception intended here--the subject's whispering was so soft that Experimenter 1 could not be sure when or if she had spoken prior to reviewing the tapes), the subject became very excited, again taking a highly qualified probability statement as an unqualified statement of fact.

Night 9

Background information

Behaving in a manner that might be best described as somewhat manic or hyperactive, the subject reported that she had been "flying" ever since she had been dropped off at her dorm earlier that morning. Her body visibly trembling at the outset of Night 9, the subject exclaimed

triumphantly, "I know I can do it! I know I can talk for the entire night!" Adding that she had been telling "everyone" about her "accomplishment" on Night 8 throughout the day, the subject reported that by 8:30pm she had exhausted herself to the point where she needed to nap, which she did until 9:30pm. Literally shaking as she spoke, the subject also stated that she felt excited because she now felt "in control of my unconscious" and because she felt she was now making an important contribution to the project.

Upon arriving at the lab the subject retired to her room for thirty minutes to write in her journal, after which she signalled that she was ready to begin the hypnotic induction. Prior to administering the hypnotic induction, however, Experimenter 1 engaged the subject in a far ranging discussion designed to uncover (within limits) the psychodynamic foundation upon which the subject's repeated misinterpretations of the experimenter's cautiously worded feedback regarding her nocturnal verbalizations was based. Little progress was made in this regard, for the subject was so eager to begin the hypnotic induction that she expressed little patience for Experimenter 1's inquiries. In what proved to be a naively conceptualized attempt to relieve some of the obviously inevitable performance anxiety that the subject would later experience during Night 9, Experimenter 1 pointed out to the subject that there was no evidence suggesting that anyone ever dreamed continuously throughout an entire night and that it was not only unrealistic for the subject to believe that she could do so, but that the purpose of this investigation was not to demonstrate that such a phenomenon could be elicited in the first place. Adding fuel to the fire, the experimenter's

remarks only served to make the subject more adamant, for she insisted not only that she could prove that it could be done, but that she would also demonstrate that she could "talk more than the other subjects" who had previously participated in the project. Realizing that it was fruitless to attempt any further intervention, Experimenter 1 administered Treatment E without incident, the subject reporting upon inquiry following the hypnotic depth enhancement procedures that she had "sunk" through "three oceans" for the first time and that during the hypnotic induction her body had "swelled to five times its normal bulk," which made her "sink like a stone."

Results

In the most prodigious output displayed during her twelve night stay in the lab, the subject manifested three discrete episodes of nocturnal verbalizations comprising a grand total of two thousand seven hundred ninety-six intelligible words, all but eleven of which were whispered or spoken during Episode 1, which consumed seventy-two of the first seventy-three minutes of the night. As can be seen in the transcripts from Night 9 (Appendix E), the subject once again revisualized the highly anxiety arousing image that first appeared on Night 4, although the revisualization on Night 9 was considerably longer and more intense. Nevertheless, the subject acknowledged in the morning that she had been awake throughout Episode 1, as is clearly evident in the annotations accompanying the transcripts from Night 9. Furthermore, and predictably, the subject also reported that she had been "really tense" during the early stages of the night.

Unable to recall any verbalizations other than those of Episode 1 (although she of course manifested two additional, brief episodes), the subject was downcast, feeling that she had been "a failure" on Night 9. Nevertheless, she wrote at length in her dream questionnaire immediately after awakening in the morning and, it should be noted, left the following poetry on the bedside table for Experimenter 1, poetry she had written during the time she had retired to her room prior to the hypnotic induction on Night 9:

I am
 a raglan wayfarer
 vagabond of the night-
 My nocturnal musings freed
 only because they are captured on tape.

The solitary anticipations
 of the nightly realm
 dart through me
 past me
 envelop me
 and I am both a prisoner and a master

Have none before me suffered
 the contradiction
 of clutching with iron grip
 of dewy expirations
 of the butterfly dreams?

How is it--that to me
 the sweetest melody lies
 in the dischord of capturing the uncapturable
 of penetrating the impermeable?

Nightly
 I strike mighty blows
 to a hitherto immutable wall,
 and lay fast the bricks of my
 greater existence.

Daily,
 I revel in the victory
 of this eternal bloodless battle

Ah--
 sleep
 dream
 sweet repose
 I am the conqueror
 I am the butterfly!

Night 10

Background information

Stating that she was feeling "somewhat humbled" by her "failure" on Night 9, the subject was very subdued at the outset of Night 10, in striking contrast to her "hyperactive" behavior the previous night. In a lengthy "confession" prior to beginning the hypnotic induction the subject discussed with surprising clarity her painful feelings of low self-esteem which, she stated, ultimately led her to repeatedly place unreasonable expectations and demands upon herself in support of her characterological defense (reaction formation) against the chronic pain associated with her low self-esteem, a defense which developmentally has evolved into a boastful, egocentric character armor. Stating that she now had a much clearer understanding of the nature of scientific and, particularly, exploratory research, the subject expressed chagrin at what she now recognized to have been her "stubborn" distortions of Experimenter 1's feedback regarding her performance in the project and her "disregard" for his attempts to caution her against formulating unreasonable expectations on Night 9.

Given the fact that the demand characteristics and response to Treatment E on Night 4 and Nights 6-9 fluctuated significantly while the treatment per se remained constant on those nights, Experimenter 1 concluded that the best course of action on Night 10 would be to

administer Treatment E once again so as not to introduce yet another set of variables in what had become a complex response matrix, particularly in light of the subject's comments which suggested still another alteration in her perceptions regarding the project and her participation in it.

After being informed, in response to her inquiry, that the same procedure would be followed on Night 10 as had been followed the previous four nights, the subject once again asked for permission to verbalize her waking imagery so as not to be burdened with the responsibility of having to distinguish sleep from wakefulness. Naturally, her request was granted, after which Treatment E was administered without difficulty or incident.

Results

In sharp contrast to her performance on Night 9, the subject manifested five discrete episodes of nocturnal verbalizations comprising a grand total of five hundred sixty-seven intelligible words, all but twenty-two of which were whispered or spoken during Episodes 1 and 2, both of which, the subject acknowledged, occurred while she was awake, although she experienced considerable difficulty trying to recall their content in the morning. Episodes 3-5 were not alluded to at any time by the subject, who claimed to have no awareness of any verbalizations other than those she recalled from Episodes 1 and 2. Reporting that she felt "fine" in the morning, the subject wrote at length in her dream questionnaire immediately upon awakening. Especially interesting was the fact that she did not request feedback at any time regarding her performance the previous night.

Night 11

Background information

Reporting that she was feeling "tired" from a hectic day of school-work and appearing subdued just as she had the night before, the subject retired to her room in the lab for forty minutes in order to flesh out the notes she had written in her dream questionnaire earlier that morning. After completing her work the subject signalled that she was ready to have the electrodes attached. Once accomplished, the subject expressed sadness that the project was nearing its conclusion, stating that it seemed as though she had been participating for "quite awhile" and that "it's going to seem strange to sleep in my own bed."

Interested in observing the subject's response to the suggested sleep talking task without the benefit of hypnosis, Experimenter 1 then administered Treatment D¹ as he had done so with Subject 2.

Results

In response to Treatment D¹ on Night 11 the subject manifested six discrete episodes of nocturnal verbalizations comprising a grand total of four hundred thirty-eight intelligible words, virtually all of which were spoken during the first fourteen minutes of the night, a time during which the subject acknowledged that she was awake. Stating that she found it "difficult to get started" with her waking verbalizations, the subject reported that unlike the nights when she fell asleep directly after experiencing hypnosis, she found her mind "filled with thoughts" rather than imagery on Night 11. Once she began to speak, however, she found that her thoughts were supplanted by images.

Although she awakened briefly around 6am, the subject could not recall any verbalizations other than those she manifested at the outset of the night. Once again, however, she had little or no difficulty recalling dream content on her dream questionnaire, in which she wrote for thirty minutes immediately after being awakened by her alarm clock in the morning.

Night 12

Background information

Expressing a great deal of "sadness" that her participation in the project was ending, the subject once again poured forth a torrent of feelings and concerns for over one hour prior to readying herself for bed. Stating that "here in the lab I'm somebody; I'll be just a nobody again tomorrow," the subject expressed a desire to Experimenter 1 to "remain your friend," which she doubted would occur because "I'm just a guinea pig to you." The subject immediately qualified her statement, adding that her perceptions had "nothing" to do with anything Experimenter 1 had said or done, since "it's evident that you tried hard to make the experiment a personal experience and I would have felt this way no matter what you did."

Adding that she had always been looking for a "mentor" like Experimenter 1, the subject immediately associated her remark to her poor relationship with her father and her feeling that she is unloved by her family. After exhausting her need to talk, the subject readied herself for bed, was reminded of the termination interview, and was administered Treatment D¹ once again.

Results

Manifesting one discrete episode of nocturnal verbalizations comprising a grand total of five hundred twenty intelligible words at the outset of Night 12, the subject awakened feeling "disappointed because I hardly said anything falling asleep last night." Nevertheless, she once again wrote a great deal in her dream questionnaire immediately upon awakening in the morning, after which she packed her belongings and the termination interview was conducted.

Termination Interview

Given the fact that the subject was clearly aware of the purpose of this investigation and had full awareness of all hypnotic procedures administered, the termination interview was very brief. Asked what had motivated her to decorate the lab with her belongings each night, the subject first complained about the "ugliness" of the posters that experimenters had hung on the walls, as well as the "ugliness" of the overstuffed chair, not to mention the fact that it was after all a hospital room, the subject then stated that she also wanted to make the lab as personal as possible "so that it would be mine and not just like the lab the other people slept in." Following this interaction, the subject was paid for her participation and reminded that she would be contacted shortly for a brief follow-up interview.

Follow-Up Interview

Seventeen days after her termination interview the subject participated in a follow-up interview. In a buoyant mood at the outset of the interview, she proudly presented a journal/scrapbook in which she was

continuing to record her morning-after waking dream recall and in which she had collected memorabilia from the project, such as the written summary presented her at the recruiting meeting and what appeared to be a photocopy of the check Experimenter 1 had presented her at the conclusion of the termination interview. Astonishingly, however, the "photocopy" turned out to be a minutely detailed hand drawn replica of the check that was stunning in its realism.

In addition to collecting memorabilia, the subject also had recorded details of her participation in the project, which she planned to use as the basis for a paper about the investigation that she expected to write later in the year. In this regard, she requested that she be mailed copies of her sleep lab dream questionnaire after Experimenter 1 had completed his data analysis.

During the interview proper, the subject reported that she had experienced no after effects from her participation in the project, but that she had begun to talk in her sleep (according to her roommate) immediately after Experimenter 1 had contacted her to arrange a date for the follow-up interview, stating "I thought somebody was there in my room listening to me" on the night she spoke in her sleep. Adding that she "misses the experiment..., feeling important, having someone interested in me," the subject noted, "I looked at myself more in the experiment, became more introspective" than she does normally. Since the termination of the project, she also found that her hypnogogic imagery was "not nearly as vivid," nor did it arise "as frequently and as easily" as it did on nights when she fell asleep directly out of a state of hypnosis in the lab. Adding further comments about her

hypnotically mediated hypnogogic imagery, the subject recalled:

My imagery was more fluid under hypnosis than it was without it in the lab, or than it is right now when I'm falling asleep. It was more connected by shapes, like watching clouds changing shapes and forms...I can remember that my hypnotic images seemed to have a lot more color and detail than my dreams seemed to have when I was asleep. Under hypnosis things became more focused, like a camera zooming in. Even when I tried to keep macroscopic view, the camera sometimes zoomed in on its own. Everything, the images, seemed to happen without (volition) under hypnosis. The only thing I felt I was consciously controlling was my verbal reporting.

Asked if she could recall having consciously censored anything from her verbal reporting, the subject responded:

There were one or two instances in which I remember consciously screening images from my reporting. These images were of the male sex organs and I quickly and consciously blocked them from my mind's eye by simply turning my mind's eye away from them because it would have embarrassed me to report them to you. It was still in the corner of my mind's eye but I figured if I didn't look at it, it would just give up and go away.

Asked if such images or thoughts caused embarrassment when experienced alone, the subject stated that they did not and that it was clearly the notion of having to share these images with the experimenters that caused her to feel embarrassed.

Data Summary and Analysis

Treatment effects

Presented alone, Figure 3 is misleading, for it omits volumes of data already presented and, to some extent, discussed, without which the reader might be led to draw faulty conclusions concerning treatment effects. At the most general level, we can conclude that the treatments designed to elicit the target behavior (Treatments E and D¹) had the

effect of eliciting nocturnal verbalizations that were primarily descriptive of visual imagery, as opposed to the thought-like verbalizations associated with Treatment A. More specifically, however, productivity per se fluctuated in a manner that can only be accounted for by a night by night analysis of the demand characteristics created by an interaction between the dynamics of the experimental treatments themselves and the subject's ever changing perceptions, motivations, and needs.

For example, Subject 3 spoke for nearly fifty-five minutes on Night 1 following the administration of Treatment A, a compound function of the subject's perception that the experimenters were interested in her, her need to inundate those she perceives to be interested in her with "everything and anything that's on my mind," and the availability of a microphone with which to meet her needs. Similarly, comparable demand characteristics existed on Night 2, modulated by the subject's feeling of guilt that she had "taken advantage of the situation," resulting in a diminished level of productivity.

By Night 3, the subject had been interrogated by Experimenter 1 regarding the motivations behind her nocturnal verbalizations, leaving her feeling "embarrassed" and wondering "if I'm abnormal." Consequently, the demand characteristics were altered and the subject remained silent throughout the night.

On Night 4 Treatment E was introduced, after which the subject manifested her most productive night of the twelve she spent in the lab, primarily a function of her perception that she was expected to speak for the entire duration of the night. As already stated, there

was also an alteration in the content of her verbalizations in response to Treatment E over that contained in her verbalizations made in conjunction with the administration of Treatment A.

Specifically instructed to remain silent on Night 5 for reasons described in detail earlier in this chapter, the subject executed the suggested task perfectly that night. Having been informed on Nights 6 and 7 that her perception of Treatment E on Night 4 had been incorrect, and that she was not expected to verbalize for the entirety of the night, the subject cut back drastically on her output. Nevertheless, yet another set of demand characteristics was created on Night 8 when the subject asked for and received feedback regarding her previous performance, feedback which led her to perceive incorrectly that not only had it been confirmed that she had manifested the target behavior but that she had "failed" to perform up to standards by manifesting relatively fewer verbalizations during the later stages of the night ("Say roughly after 4am or later," were the words spoken by Experimenter 1, it will be recalled) than she had manifested during the earlier stages of the night. Consequently, the subject demonstrated an observable and significant boost in her productivity on Night 8, a clear function of these newly created demand characteristics, for the subject awakened at 4am, after which she manifested virtually all of the nocturnal verbalizations appearing in the graphed results of Figure 3 for the night.

By Night 9 yet another set of demand characteristics had been created by the subject's perception that she had developed the ability to dream and verbalize non-stop for an entire night and by her need to

demonstrate that she was more capable than the other subjects participating in the project. Accordingly, she manifested another sharp increase in her productivity which fell short only of her prodigious output on Night 4, a night in which related demand characteristics came into play.

By Night 10, however, the subject had been "humbled" by experiences already described earlier in this chapter, once again creating a new set of demand characteristics similar to those created on Nights 6 and 7 following the subject's huge output on Night 4. Accordingly, her output on Night 10 was quite similar to her modulated output on Nights 6 and 7.

Finally, the subject was administered Treatment D¹ (no hypnosis) on Nights 11 and 12, manifesting a level of productivity comparable to the modulated output associated with Treatment E on Nights 6, 7, and 10, a finding which suggests that for Subject 3, Treatments E and D¹ were equally effective in terms of sheer productivity on those occasions when the cathexis of the subject's psychological conflicts to this investigation temporarily went into remission, as it were, in response to events already described (qualitative differences experienced by Subject 3 between Treatments E and D¹, regarding the enhanced production of visual imagery under hypnosis similar to those experienced by Subjects 1 and 2, have also been described earlier in this chapter).

As was the case with Subjects 1 and 2, there was little superficial variance in the nature of Subject 3's self-reported mood prior to the administration of the experimental treatments. However, unlike Subjects 1 and 2, Subject 3's mood, as can be seen in Table 7, was of an ego dystonic rather than an ego syntonic nature far more often than it was

not, a fact which, as already stated, apparently had a profound effect on the outcome of the experimental treatments when analyzed from a psychodynamic point of view. Given the facts that there were no anomalies in response to the experimental treatments and only one morning on which the subject failed to recall any dream content in the lab (a fact already accounted for), it is obvious that these two variables need not be examined further.

Table 7. Self-reported mood prior to administration of different experimental treatments, anomalies in response to administration of treatments/preliminary imagery tasks, and presence of morning-after waking dream recall.

<u>Night</u>	<u>Treatment</u>	<u>Mood</u>	<u>Anomalies</u>	<u>Recall</u>
1	A	"depressed"	none	yes
2	A	"good"	none	yes
3	A	"good"	none	yes
4	E	"depressed"	none	no
5	A'	"not very good"	none	yes
6	E	"depressed"	none	yes
7	E	"good"	none	yes
8	E	"depressed"	none	yes
9	E	"tense"	none	yes
10	E	"humbled"	none	yes
11	D'	"tired"	none	yes
12	D'	"sad"	none	yes

Validity of treatment effects

Following the criteria established to assess the validity of the nocturnal verbalizations manifested by Subjects 1 and 2, Table 8 is presented below to serve as a basis from which to assess the nocturnal verbalizations manifested by Subject 3.

Table 8. Estimated times of sleep onset and occurrence of first REM period on nights containing nocturnal verbalizations.

<u>Night</u>	<u>Lights Out</u>	<u>Body Movement</u>	<u>Sleep Onset</u>	<u>1st REM</u>
1	12:04am	1:26am	12:46-12:56am	1:46-2:16am
2	(see speculative analysis below)			
4	12:59am	2:47am	2:07- 2:17am	3:07-3:37am
6	2:36am	3:11am	2:36- 2:41am	3:36-4:06am
7	12:18am	1:23am	12:43-12:53am	1:43-2:13am
8	(see speculative analysis below)			
9	12:31am	2:27am	1:47- 1:57am	2:47-3:17am
10	12:52am	1:50am	1:10- 1:20am	1:10-2:40am
11	11:47pm	12:49am	12:09-12:19am	1:09-1:39am
12	1:47am	3:13am	2:33- 2:43am	3:33-4:03am

Based upon the estimates described in Table 8, Subject 3's nocturnal verbalizations may be speculatively analyzed as follows:

Night 1: Episode 1 was acknowledged by the subject to have occurred while she was awake and, given both its content and the context in which it was elicited, cannot even be considered to be the product of hypnagogic imagery, with the exception of the last two minutes of the episode when the subject spontaneously began to describe her visual imagery at a point which remarkably coincides with the earliest estimate of sleep onset. Episode 2 also occurred during a time which the subject acknowledged she was fully awake. However, since the entire episode was unintelligible it cannot be analyzed further.

Night 2: Both Episodes 1 and 2 were acknowledged by the subject to have occurred while she was awake. When coupled with their content, this fact makes it clear that neither episode was dream related or the product of hypnagogic imagery.

Night 4: Episode 1 was acknowledged by the subject to have occurred while she was awake and is therefore considered to be a product of hypnogogic imagery. Episode 2 occurred just a few minutes prior to the earliest estimate of sleep onset and, given the qualitative differences in both its content and verbal delivery when compared with Episode 1, most likely was a product of hypnogogic imagery occurring in the "twilight zone" during the transition from Stage 0 wakefulness to Stage 1 NREM sleep. Of added interest, the subject had no waking memory of this brief verbalization. Episode 3 occurred thirteen minutes after the latest estimated onset of the first REM period of the night and was therefore most likely REM related or the product of Stage 2 descending NREM sleep. Episodes 4 and 5, however, both occurred during times that the subject acknowledged she had been awake and, given the fact that they were entirely unintelligible, cannot be analyzed further.

Night 6: Episode 1 occurred prior to the earliest estimated onset of sleep and was also acknowledged by the subject to have occurred while she was awake. Consequently, Episode 1 may be considered a manifestation of hypnogogic imagery. Episodes 2 and 3, on the other hand, both occurred well beyond the latest estimated onset of sleep and are most likely the products of the first Stage 4 NREM sleep of the night. Episode 4 falls directly within the estimated range of times for the onset of the first REM period of the night. Episode 5, occurring seventy-five minutes later, falls within the acceptable range of times separating REM periods in the 90-minute sleep cycle, indicating that it may have been a product of the second REM period of the night. Episode 6 also

falls within the acceptable range of times separating REM periods in the sleep cycle, based upon the latest estimate of the onset of the first REM period of the night. However, it is unlikely that both Episodes 5 and 6 were products of the same (second) REM period. At the very least, it is fairly safe to conclude that they both occurred during sleep, particularly given the subject's lack of awareness regarding these verbalizations. Episode 7, on the other hand, was acknowledged by the subject to have occurred after she had awakened shortly before her alarm was to have rung in the morning. Consequently, although we do not know the content of this verbalization, it may have been a product of hypnopompic imagery (that which occurs as we awaken from sleep).

Night 7: Episodes 1-3 all occurred prior to the earliest estimated onset of sleep and are therefore the products of hypnogogic imagery at best, the subject acknowledging that she had awareness of at least Episode 1 as it occurred. Episodes 4 and 5, on the other hand, both occurred well within the estimated range of times predicting the second REM period of the night. Given the fact that they were separated by only nine minutes, there is a strong possibility that both episodes were products of the same REM period.

Night 8: Episode 1 occurred during a time which the subject acknowledged she was awake and, although its content remains a mystery, was probably a product of hypnogogic imagery. Based upon the subject's body movements at 5:34am, Episodes 2-4 would qualify as the products of NREM sleep if the method of estimating the onset of sleep is accurate following a lengthy nocturnal awakening such as that which occurred at

4am. In any case, the subject had no waking memories of having manifested Episodes 2-4.

Night 9: Episode 1 clearly occurred prior to the earliest estimated onset of sleep with full waking awareness on the part of the subject, making it a product of hypnogogic imagery at best. Episode 2 occurred shortly after the earliest estimated onset of sleep and is speculatively analyzed to have been a product of Stage 1 NREM sleep. Episode 3 occurred within the estimated range of onset of the second REM period of the night and is speculatively analyzed to be REM related.

Night 10: Episode 1 occurred prior to the earliest estimated onset of sleep with full waking awareness on the part of the subject and is therefore speculatively analyzed to be the product of hypnogogic imagery. Episode 2 coincides with the earliest estimated onset of sleep and is therefore considered to be a product of either the "twilight" transition from wakefulness to sleep or Stage 1 NREM sleep. Episodes 3-5, all occurring within a span of five minutes, each fall within the acceptable estimated range of times for the second REM period of the night.

Night 11: Episodes 1 and 2, verbalized with the full waking awareness of the subject, both occurred prior to the earliest estimated onset of sleep and are therefore considered to be the products of hypnogogic imagery. Episode 3 corresponds with the estimated time of sleep onset. Episode 4 falls within the estimated range of times for the second REM period, while Episodes 5 and 6 fall within the estimated range of times for the fourth REM period of the night.

Night 12: Episode 1 not only occurred before the earliest estimated onset of sleep, it was acknowledged by Subject 3 to have occurred while she was awake and is thus speculatively analyzed to be the product of hypnogogic imagery.

Content Analysis

As can be seen by reviewing the transcripts located in Appendix E, the content of Subject 3's nocturnal verbalizations ranged from waking, thought-like free associative material not related to visual or dream imagery, to fairly static descriptions of visual imagery speculatively analyzed to have been the products of hypnogogic imagery, to truncated phrases too brief and/or out of context to constitute illuminating descriptions of ongoing dreams, phrases which were speculatively analyzed to have been the products of NREM or REM dreams. Virtually all of the subject's nocturnal verbalizations occurred while she was awake, a fact which most likely accounts for the striking resemblance between her so-called hypnogogic imagery and typical waking free imagery, in that both products contain numerous associative shifts in visual content with derivatives of underlying conflict occasionally emerging, accompanied by symptoms of anxiety and/or affective reactions, as was the case with Subject 3 on Nights 4 and 9.

Turning to an assessment of the different circumstances of observation and their apparent effects on the content of the subject's reported dream or dream-like imagery, Table 9 is presented below.

Table 9. Total number of mutually agreed upon independently scored incidents of sexual interactions, aggressive interactions, and emotions appearing in the content of dream reports elicited under different circumstances of observation.

<u>Source</u>	<u>Sex</u>	<u>Aggression</u>	<u>Emotions</u>	<u>Total # of Words Reported</u>
Post-Gp. Hyp. Quest.	2	4	25	3402
Pre-Lab Quest.	3	5	15	3097
Nocturnal Verb.	0	6	6	5685
Sleep Lab Quest.	1	10	20	5976

Given the fact that Subject 3's written dream recall was generally much lengthier than that provided by Subjects 1 and 2, and that her written narratives often supplied detailed descriptions of ongoing activities and conversations occurring in her dreams, rather than strictly condensed summaries, her written dream questionnaire narratives are more directly comparable to her nocturnal verbalizations than were those of Subjects 1 and 2 (the number of words reported by Subject 3 in her post-group hypnosis questionnaire and her pre-lab questionnaire, when projected over a twelve night span, would come to 5,832 and 5,309 words respectively). Controlling for the differing lengths of the subject's dream narratives under the four circumstances of observation by dividing the number of scored incidents appearing in Table 9 by the number of words reported, the greatest ratio of scorable incidents per words reported appears in the subject's dream questionnaire following the group hypnosis screening (a figure of .009), precisely as was the case with Subjects 1 and 2. Once again this suggests that the post-group hypnosis questionnaire, with the anonymity it inherently provided, was associated with the least threatening set of circumstances among the four created during this investigation.

However, in direct contrast to Subjects 1 and 2, Subject 3's nocturnal verbalizations appear to have been associated with the most threatening set of circumstances, containing an incidents/words ratio of only .002 (only the spontaneous visual imagery from Night 1 was extracted from the subject's monologues on Nights 1 and 2 for the purpose of calculating this figure), with sexual content completely absent. Unlike Subjects 1 and 2, though, Subject 3's nocturnal verbalizations occurred almost invariably while she was awake, a fact which most likely accounts for the sharply lowered level of scored incidents yielded under this format.

More true to form, the subject's sleep-lab responses were elicited under a set of circumstances that were apparently more threatening (.005) than those arising during the elicitation of responses on the pre-lab questionnaire (.007). However, it is somewhat surprising to find that the loss of anonymity associated with the pre-lab questionnaire did not result in a reduction of reported sexual or aggressive content over that associated with the post-group hypnosis questionnaire, but resulted instead in a moderate decrease in reported emotions, specifically anger. Apparently, the simple loss of anonymity per se had little impact on Subject 3, who already had considerable experience keeping a dream log and who thrived on sharing written material with Experimenter 1, as was manifest in her repeated efforts throughout the project to get the experimenter to read passages from her extra-experimental dream log, her personal journal, and the poetry she left behind for him in the lab.

Once engaged in an interpersonal relationship with the experimenter in the sleep lab on a daily basis, however, it would appear that the subject's anxiety regarding the sharing of sexual content in particular was activated, leading to an even conscious censorship of sexual material, as was acknowledged by the subject during her follow-up interview.

In closing this section, it should be reported that the level of interjudge reliability for scoring the content of Subject 3's dream reports and nocturnal verbalizations reached an 82% overall level of agreement for the total combined number of incidents scored within each of the three categories and a 72% level of agreement for the types of incidents scored.

Conclusions

As has already been suggested, Subject 3 brought a number of significant intrapsychic conflicts into this investigation which became inextricably bound to the experimental procedures undertaken and which consequently played a prominent role in both the nature of the subject's powerful transference relationship with Experimenter 1 and in the results obtained. Even the subject's written narratives of dreams recalled during her stay in the lab reveal an overinvolvement in the project.

Yet, despite her need to please the experimenters and to demonstrate that she was the "most capable" of the three subjects who participated in the project, Subject 3 manifested the fewest number of nocturnal verbalizations speculatively analyzed to have been the products of sleep, results which the subject inadvertently predicted during her monologue on Night 2 when she stated, "...my dreams have to be just as real as what I go through in the daytime. That's why I write them down,

'cause I don't want to lose any of it (voice becoming gravelly). I'm very jealous. I want to grab everything and keep it for myself...I want to be just as aware of what's going on when I'm sleeping as when I'm awake (author's italics)."

In fact, the subject similarly reported that she experienced difficulty in letting herself just be a part of the hypnotic experience, frequently feeling the need to pull back and analyze the process in detail, a need which in large part theoretically accounts for her lowered level of hypnotic susceptibility. Yet, despite her moderate hypnotic susceptibility and apparently associated fears of losing control, the subject did on occasion manifest brief, fragmented nocturnal verbalizations speculatively analyzed to have been the products of sleep, uttering on one such occasion the word "damn," the only time that the subject was heard to curse during the entire course of her participation in the project, both in and out of sleep lab, providing an interesting example of a reduction in both awareness and defensiveness during sleep.

In fact, Subject 3 demonstrated a propensity for manifesting brief, fragmented REM or NREM associated verbalizations after the first hour of the night that was comparable to that demonstrated by Subjects 1 and 2. The major difference between Subject 3's performance and those of Subjects 1 and 2 was that Subject 3's nocturnal verbalizations manifested during the earliest stages of the night, unlike those of Subjects 1 and 2, appear to have occurred while she was awake, yielding a qualitative difference in content and suggesting that she was more capable of executing the suggested task later in the night under

conditions that were further removed from waking consciousness and, consequently, the effects of her considerable waking anxiety regarding the target behavior.

As was the case with Subject 2, hypnosis appears to have primarily enhanced the production of Subject 3's visual (hypnogogic) imagery without clearly mediating her ability to provide in-process dream verbalizations later in the night. It is difficult to know what accounts for the enhanced production of visual imagery under hypnosis, an enhancement reported by all three subjects, although one possibility might be that the prolonged immobilization experienced by subjects under hypnosis constitutes a form of sensory deprivation which, as is widely known, is a phenomenon associated with hallucinatory experiences.

These issues aside, the participation of Subject 3 in this project once again demonstrates that it can be counterproductive to attempt to isolate so-called treatment effects in psychological research on a large scale with little regard for the individual differences brought into research by subjects, differences which we have found to be illuminating in gaining a broader understanding of the dynamic interplay between our experimental treatments, our subjects' personalities, the relationship between each subject and the experimenter, and the outcome of this investigation which, as in all avenues of dream research, involved variables of a highly personal nature. Unfortunately, what may be illuminating individual differences are often dismissed by researchers as "noise" or "dirt" in the data, assessments which are used to justify the exclusion of "aberrant" subjects from the analyses of so-called "treatment effects," a state of affairs which runs the risk of obtaining "clean" results at the expense of understanding.

DISCUSSION

As an exploratory investigation into the efficacy of posthypnotically suggested sleep talking as a paradigm for eliciting verbal descriptions of nocturnal dreams in process, this project was undertaken with two major goals in mind. The first, and most important, goal was to assess the viability of induced in-process dream verbalizations as a tool warranting more extensive research and development in the pursuit of gaining closer proximity to the phenomenological, sleeping dream experience than is currently afforded by REM/NREM awakenings, the method generally conceded to be the most sophisticated and illuminating means of obtaining data on dreaming consciousness and dream content. In order to undertake such an assessment, it was necessary to pilot test procedures heretofore unreported in the literature in an effort to elicit an observable effect. Consequently, the second major goal of this investigation was to take the initial steps in developing a viable procedure and, whether successful or not, to gain as broad an understanding as possible of both the anticipated and unforeseen methodological issues pertaining to this lightly studied area of dream research.

Regarding the first major goal, we have elicited phenomena that constitute dramatic new findings that clearly warrant further investigation. Two of our three subjects reliably manifested highly descriptive nocturnal verbalizations in response to posthypnotic suggestions that were speculatively analyzed to have occurred without the subjects' awareness during the first descending NREM sleep of the night. If future research capable of affording polygraphic data gathering

procedures verifies that these highly descriptive nocturnal verbalizations can be and were in fact elicited during NREM sleep, we will have demonstrated not only that dreams can be reported in exquisite detail without disrupting sleep but that the "sanctity" of REM sleep as the virtually exclusive mediator of vividly imagoic or "dream-like" dreams bears reconsideration.

Regarding the second major goal, the results clearly suggest that we have attained satisfactory success in taking the initial steps in developing viable procedures for reliably eliciting in-process descriptions of nocturnal dreams, particularly through the use of hypnosis.

However, through the results of Subjects 2 and 3 we learned that hypnosis was not essential for eliciting nocturnal verbalizations (in the generic sense) after the onset of sleep, but that hypnosis seemed instead to enhance the production of hypnagogic imagery and, in the case of Subjects 1 and 2, to also stimulate the production of dreams or dream-like imagery as the subjects drifted into sleep. This suggests that the elicitation of in-process dream verbalizations per se may be mediated more by the subjects' motivation than by any particular properties specifically associated with hypnosis and I would not be surprised to find that Subject 1, who failed to manifest any nocturnal verbalizations in response to Treatment D (no hypnosis), would now be able to do so in light of her personal growth, the elimination of authoritarian procedures, and the advent of full disclosure, in place of deception, following her original participation in the project.

Nevertheless, the in-process verbalizations manifested by Subjects 2 and 3 without the benefit of hypnosis were of poor quality and similar only to those manifested by all three subjects with hypnosis after the first hour or so of the night. In other words, these verbalizations, as already noted, were so brief and fragmented that they could not be considered illuminating dream descriptions. One of the problems in this regard was that, as Subjects 2 and 3 both noted, these "late night" dreams seemed to "go by too fast" to describe them adequately, while at the same time remaining a participant/observer in the dream without awakening.

On the other hand, as reported by Subject 2, the early evening, hypnotically influenced "NREM" dreams, of which we obtained our best descriptions, seemed to occur "more slowly" and were perceived as "more vivid," thereby enabling at least Subject 2 to offer more complete descriptions of these hypnotically influenced dreams, even though he once commented that the very concept of describing dreams as they occur was akin to "describing a play to the audience while at the same time acting in it." Quite cleverly, Subject 2 overcame this problem on numerous occasions by simply acting out his participation in his dreams verbally without regard for perspective or context.

What Subject 2 alluded to as the relatively slow pace of the early "NREM" dreams, dreams seemingly under the continuing influence of hypnosis, may reflect a higher degree of perceptual awareness as a function of the subject's greater temporal proximity to waking consciousness during these dreams than is the case during the "fast" dreams later in the

night, when perceptual awareness may be considerably more diminished, resulting in the perception of dream imagery as fleeting or "fast."

Whatever the case, if these "slow," artificially induced dreams and their associated nocturnal verbalizations are later confirmed to have actually occurred during sleep, they may offer the best opportunity we have to study dreaming consciousness, unless the source of the difficulties encountered with the brief descriptions of REM dreams (which, as suggested earlier, may be a function of the suppression of voluntary muscle activity during REM sleep) and other "late night" NREM verbalizations of mental phenomena can be identified and ameliorated.

Although it is premature to make any definitive conclusions regarding dreaming consciousness at such an early stage in this research, our data suggest that the issue of whether or not the majority of dreams are "prosaic" or constitute a "remarkably faithful replica of waking life" may be more semantic than substantive, for it is clear that the majority of the subjects' dreams contained persons and events taken from the current life of the dreamer, as Calkins suggested near the turn of the century. Yet, to describe these phenomena as prosaic seems to be an unfortunate selection of adjectives, for the written dream narratives and nocturnal verbalizations produced by our subjects were replete with primary process representation, symbolism, conflict, and affect that do not typically dominate their waking consciousness in the manner that they seem to during dreams.

Moreover, our data suggest that there is a basic difference between dreaming consciousness and waking consciousness, for there were clearly

observable differences in the content of the subjects' in-process nocturnal verbalizations that corresponded with the products speculatively analyzed to have been the manifestations of hypnogogic imagery (representing waking consciousness) and nocturnal dreams (representing dreaming consciousness) respectively. Specifically, these differences in consciousness can be conceptualized in terms of the sleeping ego's diminished capacity to discriminate the boundaries demarcating external stimuli from internal stimuli and external reality from internal or intrapsychic reality. This diminished capacity is reflected in the imagoic content alluded to above in which we observed the transformation of the ego's mediating role in the perception of internally generated hypnogogic visual imagery from that of a waking observer/participant who either is aware or can readily become aware of the distinction between the perception of intrapsychic fantasy and the perception of external stimuli/reality to one of a sleeping participant/observer who, while retaining a sense of the self, is unaware of this distinction and who consequently perceives intrapsychic dream fantasy as the external reality of the physical universe in which the sleeping ego perceives itself to be a participant and upon which sleeping ego boundaries that are seemingly different from waking ego boundaries are based.

Consistent with this transformation, we observed the incorporation of external stimuli, such as sounds occurring in the subjects' room, into dream content, such that these stimuli were perceived and responded to as though they were emanating from the subjects' intrapsychic dream world and not in fact from sources external to that world. Similarly, the subjects' invariable failure to demonstrate awareness of their

sleep talking despite having waking awareness of the sleep talking task and despite the fact that some of their verbalizations were virtually shouted out loud reflects the apparent distinction between waking and dreaming consciousness, for except in the rare cases of so-called "lucid" dreams in which the dreamer is aware of the fact that s/he is dreaming ("dreams" which polygraphic verification may ultimately demonstrate to be hypnopompic fantasy) the dreamer is unaware of the fact that s/he is actually asleep while dreaming, perceiving instead that s/he is awake, in which case nocturnal verbalizations may be perceived by the sleeping, dreaming ego as unspoken thoughts (auditory images) and/or speech occurring in the dream itself ("waking reality" to the sleeping ego).

The question of whether or not differences in dreaming consciousness exist between the various stages of sleep awaits more sophisticated replications, for beyond our speculative analyses regarding the relationship between the content of the subjects' nocturnal verbalizations, the onset of sleep, and the onset of the first REM period of the night, which were at best relatively crude analyses in any case, our speculative analyses regarding the stages of sleep during which all nocturnal verbalizations occurred subsequent to the first REM period are too speculative to command sufficient scientific credibility, since the parameters of the sleep cycle fluctuate erratically in a fashion that can only be monitored satisfactorily with a polygraph.

Ideally, of course, this investigation must be replicated with the benefit of a polygraph, and it would be especially interesting to awaken subjects immediately after their nocturnal verbalizations to ask for their waking dream recall. Not only might this procedure enable us to learn more about the problems associated with verbalizing the "fast" dreams

later in the night, it would also provide an excellent test of secondary elaboration, something we had hoped to undertake in this investigation but which never materialized because there was virtually no morning-after written dream recall that bore any resemblance to the content of the subjects' nocturnal verbalizations. This finding may have been a function of memory regarding the early "NREM" verbalizations in the case of Subject 2 (Subject 1, it will be recalled, remembered no dreams when administered the posthypnotic suggestion while Subject 3 could not and did not conceptualize her early verbalizations as the products of nocturnal dreams). In the case of the "late night" verbalizations manifested by all three subjects, they were so fragmented that it may simply be impossible to identify them in the written summaries of the dreams in which they were or might have been embedded.

From a methodological perspective we have gained a great deal more understanding about this kind of research than we had at the outset of this investigation, understanding which forms the foundation upon which future research along these lines may be based. In this regard, one of the most important lessons learned during this investigation, a point which has been emphasized repeatedly throughout this paper, has been that dream research is a very delicate and complex proposition. Dreams are private experiences generated intrapsychically and it is naive to assume that they can ever be directly observed, no matter how "open" or willing to share the subject may be. Even if a technique can be developed to transpose cerebral activity into "dream movies" there is no reason to believe that these products would be invulnerable to the effects of anxiety and unconscious censorship. In other words,

in order to gain further understanding about dreaming consciousness and dream content we must constantly and rigorously assess our subjects' personalities and, accordingly, the impact that our procedures have on them and their dream reports. In this vein we have gathered preliminary empirical data which indicates that the circumstances of observation may be quite influential in determining the dream content reported by subjects and which indicates that ostensibly similar circumstances of observation affect subjects differentially, as the participation of Subject 3 clearly demonstrated. These concepts are hardly new, but they tend to be easily ignored by dream researchers seeking to make broad generalizations about a frequently eclectic phenomenon.

Related to these issues we have learned that it is counterproductive to attempt to cleverly subvert a subject's defenses in an effort to obtain "uncensored" dream material and that it is not necessary for the subject to be unaware in the waking state ("amnesic") of the experimenter's attempts to manipulate variables in order for him or her to also be unaware of manifesting the target behavior. In fact, we have learned that what is so commonly referred to as "posthypnotic amnesia" may be more meaningfully conceptualized as repression activated as a defense against anxiety associated with ego dystonic compliance with hypnotic procedures and tasks, an inference which may have far ranging implications regarding the behavior of hypnotic subjects beyond this particular investigation.

The specific implications of these procedurally related findings are that it is important for the experimenter to develop a cooperative, egalitarian working relationship with the subject if he or she hopes to elicit in-process dream verbalizations, for the concept itself is

evidently quite anxiety arousing for subjects on the face of it (perhaps particularly so for those as young as ours) but can be made less threatening if the experimenter is both willing and capable of assisting subjects in working through their anxiety. That efforts were made in this regard during this investigation undoubtedly accounts in large part for the powerful impact that participation in this project had on all three subjects, particularly in terms of the personal growth experienced by Subjects 1 and 2. In fact, we observed in the case of Subject 1 that the development of a relationship increasingly based on trust and rapport seemed crucial in enabling the subject to comply with the suggested task despite the fact that our posthypnotic suggestion (Treatment C) stimulated considerable anxiety, as it did also with Subject 2 before a less threatening procedure (Treatment E) was developed.

Quite obviously, however, efforts to reduce a subject's anxiety and to develop an egalitarian, working relationship with him or her do not guarantee success, for we are bound to encounter subjects such as Subject 3 who bring to dream research serious, long standing psychological conflicts that are readily cathected and displaced onto an investigation such as this and which do not bode well for either the development of a healthy working relationship or for a short term reduction in anxiety. Moreover, the participation of Subject 3 demonstrated how important it is to remain skeptical and carefully assess the psychodynamic forces behind a subject's superficial enthusiasm and apparent motivation, for after the recruiting meeting I would have predicted that Subject 3, who was the most demonstrably enthusiastic

and interested subject of the three who participated, would have the greatest success executing the target behavior and that Subject 1 would have been the least likely to do so.

In conclusion, it is evident that there is a great deal more to be learned about in-process dream verbalizations. We can only hope that the new empirical evidence we have generated will encourage others to engage in further research and development of this nature. Certainly there must be considerable room for improvement in our procedures. At the very least, more controlled investigations must be undertaken to more adequately identify the variables mediating induced sleep talking, particularly those which may be related to the interpersonal relationship between the subject and the experimenter, of which a great deal of qualitative, uncontrolled data has been collected, reported, and interpreted during this investigation. At the very best, however, continued research and development may yet produce the kind of breakthrough achieved in Kleitman's lab in the 1950's when dream research was rocked out of a state of stagnation which it is beginning to approach as a psychological discipline once again today.

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APPENDICES

APPENDIX A

Sample Dream Questionnaire

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Sample Dream Questionnaire

D R E A M Q U E S T I O N N A I R E

Now that you've awakened, close your eyes again and try to recapture as many of last night's dreams or dream fragments in your mind's eye as you possibly can. As soon as you've revisualized one of last night's dreams or dream fragments, open your eyes and write the dream down on the paper provided below. Describe your dreams in as much detail as possible without omitting a thing.

Each time that you finish writing a dream down on paper, close your eyes again and try to recapture another one of last night's dreams. Repeat the entire procedure as many times as is necessary until you no longer remember any more dreams. Remember, there is no "correct" number of dreams that should be recalled. You may remember none or you may remember many; it is critical to our research that you simply be honest. As soon as you finish all of your writing, fill in the information requested on the back side of this page.

Dream 1 (label your next dream report, if there is one, Dream 2, then Dream 3, etc.):

(use additional paper if necessary)

As soon as you finish all your writing, fill in the information requested below.

Today's date _____ What time did you go to bed last night? _____

What time did you wake up today? _____

What time is it right now? _____

APPENDIX B

Sample Subject Consent Forms

APPENDIX B

Sample Subject Consent Forms

MICHIGAN STATE UNIVERSITY
Department of Psychology

DEPARTMENTAL RESEARCH CONSENT FORM

1. I have freely consented to take part in a scientific study being conducted by: Robert Dave, M.A.
under the supervision of: A. S. Aniskiewicz, Ph.D.
Academic Title: Associate Professor, Department of Psychology
2. The study has been explained to me and I understand the explanation that has been given and what my participation will involve.
3. I understand that I am free to discontinue my participation in the study at any time without penalty.
4. I understand that the results of the study will be treated in strict confidence and that I will remain anonymous. Within these restrictions, results of the study will be made available to me at my request.
5. I understand that my participation in the study does not guarantee any beneficial results to me.
6. I understand that, at my request, I can receive additional explanation of the study after my participation is completed.

Signed: _____

Date: _____

RELEASE

I, _____, hereby agree to permit audiotape recordings of my voice which portray and depict my participation in the research project being conducted by Robert Dave, M.A. under the supervision of A.S. Aniskiewicz, Ph.D. at Michigan State University during Spring Quarter, 1979 to be used for demonstration and instructional purposes and for duplication for up to 20 years from the date noted below. I understand that I may withdraw my permission for use of these materials in general, or for any specific purpose or situation, at any time by making a written request to Michigan State University or the Department of Psychology. I understand that the confidentiality of the material presented will be protected. I likewise authorize Michigan State University to use such materials so prepared for exhibition purposes with professional psychology groups and to permit the right of use to other parties for such purpose so long as they also agree to protect the confidentiality of the material.

The materials recorded by the process noted above will be stored and protected as confidential material by the researcher. The specific method of maintaining confidentiality and storage are determined by the professional supervisor and the student. When the audiotaped materials are no longer useful for demonstration, instructional, or research purposes, or at my written request, they will be mechanically erased.

Signed: _____

Witnessed: _____

Date: _____

APPENDIX C

Verbatim Transcripts of Subjects' Post-Group Hypnosis Dream Questionnaire Responses

Subject: 1
 Night: 1
 Bedtime: 1:30am
 Awakened: 10:00am
 Questionnaire Completed: 10:07am

1. I was in the dentist's office (entered through the side door) and the dentist seemed very glad to see me. I sat in his chair and he hugged me then he offered me some coke and my father popped up, reading "U.S. Citizen" magazine. I asked him why he was reading it and he said, "Because I'm a U.S. citizen now."

Night: 2
 Bedtime: 3:00am
 Awakened: 8:30am
 Questionnaire Completed: 8:40am

1. I dreamed that I was passing out carnations (white ones) to all of my friends. They received them with puzzled looks on their faces and then they promptly shaving creamed the flowers. I didn't react to this action, only continuing along to my friend's rooms to give them their flowers.

Night: 3
 Bedtime: 2:00am
 Awakened: 9:00am
 Questionnaire Completed: 9:05am

No Dreams Recalled

Night: 4
 Bedtime: 1:30am
 Awakened: 8:30am
 Questionnaire Completed: 8:45am

No Dreams Recalled

Night: 5
 Bedtime: 4:00am
 Awakened: 11:30am
 Questionnaire Completed: 11:40am

1. I was in psychology class with all of my friends and we were talking about fear. Suddenly a guy with a mask on came in and everybody screamed and left the room. The next day there was an article in the paper about how people who saw this man were more susceptible to heart attacks. Then I went swimming and saw a friend of mine as life guard. Everybody

in the pool had a race and I won. Then I was doing a back dolphin and I saw the Creature from the Black Lagoon. I screamed and got out and so did everybody else. Then we (all of my friends) went to a party and had a mass orgy.

Night: 6

Bedtime: 2:00am

Awakened: 10:00am

Questionnaire Completed: 10:18am

1. I dreamed that my mother and I were home in the kitchen and the phone rang. Mom went into the living room to water her plants. I answered the phone and a voice very similar to that of a cousin of mine said, "Hi, S? This is K.J. (male) (It was a female voice). She then said, "What time does your daddy usually come home?" I said, "We expect him home around 5:30." "Oh, and he was 47 years old, isn't that right?" I said, "Is there something wrong?" If there is, don't tell me. I have had a really bad day." Then I started crying, assuming my father was dead. I said, "Well, I can guess what this is about. You may as well go ahead." So the voice continued, "Well, your daddy went down to _____ (name of home town drugstore) (a store about 4 blocks away from us in reality). You know how it's an easy 20 minute trip. Well, it was a little cooler than it had been all day (at this point I looked out of the window and the whole sky was overcast--like a huge rainstorm or blizzard) so he went down. As long as he was there, he decided to check on the La Sabre. However, your daddy must not have been feeling well, because...." At this point, I woke up.

Night: 7

Bedtime: 1:00am

Awakened: 10:00am

Questionnaire Completed: 10:20am

1. I dreamed that I was going to a formal dance with the guy I have a crush on. He said, "Wait a minute . . . I have to get something." He then went up to his friend's room and his friend, who was dressed up, came out with us. A. (male) (my date) said, "Let's go play at the casino." So, we went down into the basement of Holmes. The game we played was really strange. There was a top-like thing that had 4 sets of numbers on 4 different rows. In the center there was an indicator. (S provides the following drawing:)

The corresponding number for all numbers (ex: 50.29) was then punched into a computer terminal and the terminal beeped when a player won. Finally A. said, "K. (male), why don't you two go to the formal? I've got too much homework."

S U B J E C T 2

Subject: 2
 Night: 1
 Bedtime: 12:30am
 Awakened: 6:15am
 Questionnaire Completed: 6:30am

1. My roommate was a black slave working on my large estate in California. That is all I remember.
2. I was sitting in 108-B Wells Hall and got my 2nd Mid-Term Exam back with a score of 38/45 and was worried about failing, which now makes no sense.

Night: 2
 Bedtime: 12:00am
 Awakened: 6:20am
 Questionnaire Completed: 6:40am

1. I was sitting in my room with a few others and a cute brown soft looking rat walked over to my chair--it started to stand up and crawl up the chair--I was terribly frightened--I tried to scream but nothing came out--I became more frightened--I woke up with a loud "uh"--about 4:00am.
2. I was playing raquet (sic) ball with a guy down the hall (he's very good) I played five games and won all of them.
3. I was worried about Jennifer, Apollo and Venus (my plants). I began to cry and my heart beat increased because I thought they were in danger.

Night: 3
 Bedtime: 11:30pm
 Awakened: 6:10am
 Questionnaire Completed: 6:14am

1. A beautiful hot summer day, myself and 3 other friends were on the "Love Boat." We were staying in the captains cabin. I don't know why or where he was. We got the V.I.P. treatment for 2 weeks. We ate about 5 or 6 times a day and had food from all over the world. Some how we went to Moscow?? We told the Russians where to go (h _ _ _) because they didn't have anything like a "love boat." The next day we were in San Francisco. We ate about 10 loaves of Sourdough bread. I thought I was going to die.
2. I turned my roommate into a screwdriver and locked it up in a tool box?

Night: 4

Bedtime: 11:00pm

Awakened: 6:10am

Questionnaire Completed: 6:15am

1. I was in a room--(it had no walls, it went on forever, but somehow it was a room) there were candles on the floor spaced every 4 feet or so, in every direction as far as I could see. I was naked. I ran and ran and ran--not away from anything but to something--I don't know what I was looking for, I just had to find it. I woke up about 3:15am.
2. I was wandering around inside a huge computer. I was watching all the information and data wizzing (sic) by me like little flashes of light. I walked all around. What bothered me was I couldn't comprehend how minute I must be--How could I be so small as to fit in a computer.

Night: 5

Bedtime: 10:30pm

Awakend: 6:10am

Questionnaire Completed: 6:25am

1. (You said to be honest.) I was at this big party--there must have been 500 people there. A small group of close friends and myself went into this other room with pillows all over the place--We had an orgy--there were 5 guys and 5 girls--I had sex with all of them. It was beautiful just being able to be free with everybody--both guys and girls. Beethoven's IX symphony was being played--it was so stimulating--(needless to say this was a "Wet Dream.")
2. I was skiing with this guy who lives down the hall. A beautiful free feeling--just schussing down this mountain that had no bottom--It was great--we didn't have to wait in any lines to go back up--it just went down and down--Finally I wanted to stop and rest. I couldn't--I turned totally sideways and dug my edges into the snow--I just kept going--I reached the bottom after about 25 minutes of trying to stop--I was totally exhausted.

Night: 6

Bedtime: 11:00pm

Awakened: 6:10am

Questionnaire Completed: 6:20am

1. I was the featured vocalist for the New York Metropolitan Opera Theatre. I arrived in a Continental Limosine. I was the guest at a Fantastic dinner party and signed many autographs.
2. "Exactly" the same as 2/16/79, Dream 1. (Night 5)

Night: 7

Bedtime: 12:30am

Awakened: 5:am

Questionnaire Completed: 5:15am

1. I fell off the back of a train going to Toronto. (Blank from time I fell to one day later.) I went to my own funeral--I actually saw myself laying there. But I knew it wasn't real. I thought it was a big joke but was still frightened. I woke up, about 5:00am.

S U B J E C T 3

Subject: 3
 Night: 1
 Bedtime: 11:30pm
 Awakened: 8:11am
 Questionnaire Completed: 9:09am

1. I am looking down trying to see into the basement. I am standing on the stairs looking through a one foot opening. There shouldn't be this opening into the basement, but there is. I think the basement was lighted, but I couldn't see what was in it. (S provides a crude drawing of "me on stairs looking into basement opening," adding a footnote stating, "I woke up at 3:00am to write this.")
2. French accents. San Francisco. There is a guy about my age trying to take my hand to show me the "way."

But this isn't me who is being shown, it is a male about my age-- or perhaps the male part of me. . .

Freeze dried student--he is. We all are figs. "He's not the kind of guy who changes the vending machines," says someone. tornado. gymnastics. black guy. by platform. blue hat. Granma (sic) Lewis Dagwood sandwich. jumping into water.

3. I am over a friends house in my old neighborhood. We are in the back yard with several girls our age and younger. We are doing gymnastics like we used to do in the summer. My friend M. (female) and I are not as good as we used to be.

We are (my sisters and I) staying overnight at M.'s. In the middle of the night I glance outside to see the sky divided. I look closer and notice a tornado approaching. We are scared and realize we may be doomed. I yell out that there is a tornado. My father (?) turns on some rock music (usually very unlikely). We are going to enjoy ourselves and have fun before we die.

4. I am in my old neighborhood. The guy that I am interested in here apparently lives in my old house. I make excuses to walk past this house so I can see D. (male). He is lying on the living room couch with his glasses on, reading.

I get embarrassed that I have been this forward (again?) and start to leave. One of his family sees me and knows me and tells D. I am outside on the lawn. I give in and wait for him.

Suddenly D. and his family are a black family. When D. sits beside me on the grass I don't realize what it is that is wrong. But I feel nervous and a little scared.

S., the girl across the street (I haven't seen her in years, but remet her by accident a few weeks ago) is there.

It is almost dusk. I say to the guy, "Let's go for a walk in the woods." Still with the idea that it is D. I hope that he would kiss me if we went for a walk by ourselves. I am confused that I still have these feelings for this person I see who isn't D.

We walk across the street to S.'s. In her garage is a blue hat (like the one I put on my stuffed animal) that I guess must have been my favorite and something I never go without.

While walking across the street I see my father's mother in old blue jeans. She is walking much better than she really can. It is an unusual sight because my Gramma (sic) would never ever wear pants (however, my other Gramma does and even sent me recently a pair that didn't fit her). That's about all to that.

5. I am down by the water. There is a diving platform next to the water. I am walking along the shore and decide to climb past around the bottom of the platform. Two guys want to dive but don't know how deep the water is under the board. They ask me to test it and see. The water is very dark and merky (sic).

With treppidations I get halfway into the water, still holding on to the platform. I'm afraid of what might be in that water, but not too afraid.

I get stuck half sunk into a thick soft silt. There's no danger of me drowning, but I want out just the same. I don't like the feeling. I ask someone to help pull me out. The guy dives headlong into the water. I don't know what happens to him.

6. There is another kind of platform, a double decker with a lot of people standing on the top and bottom. (S provides a crude drawing that essentially appears to be a cube.)

We are in groups. We try to perform a certain act or step to make the top or bottom of the platform move up and down. I am in the lower group. I have friends (from my old neighborhood) in the upper level.

They have a slightly different task, but it is not harder than ours on the bottom. However, we finish easily while the top still can't get it together. It's such an easy step. They're all laughing. The music is fun. I don't understand why they can't do the step that we did so easily.

(S adds the following comments at the conclusion of Night 1's dream questionnaire.) I am amazed at how I am able to remember all of these dreams in such detail! I had recently tried to start a dream journal. I had only been able to get fragments. I hadn't probably tried as hard.

All night I was thinking, "I must remember all my dreams. I must wake up to write them down."

Consequently, as I've mentioned, I woke up at 3:00am to record some of my dreams in the dark.

I just remembered something I told myself I would write down when I woke up briefly last night. It's something about cellophane. There is clear plastic around someone's legs--(around my legs?)--They are tied up and I can't move.

Night: 2

Bedtime: 11:30pm

Awakened: 5:45am

Questionnaire Completed: 9:50am

1. Early in the night I woke up several times and was thinking, "I'm not dreaming. My dreams are not good enough to write down." I think I was dreaming about dreaming and interpreting my dreams. I didn't sleep well last night for worrying about dreaming "good."
2. At one point I was walking through a big building which was probably this dorm. There were a lot of people around. Girls were kind of doing flips into bean bag chairs. Mary Tyler Moore was there doing the same. Then she climbed up to a high spot and threw herself off doing a slow flip into a big (nearly 10 foot) pink heart shaped cake. She was having fun. Two other girls (like Laverne and Shirley) were in the cake laying down too. I just walked mutely by--only a passive observer.

I went over to where the elevators were. There was some kind of an operator there behind a booth who would play a taped song at regular intervals for some reason. I put my hand through the booth to turn it on myself, very interested by it. I asked him if he didn't get sick of listening to it. He said he did and left.

I take the elevator to the upper level. I can still see them jumping into bean bags and cakes below.

Wait--somewhere before this I am below watching a basketball game. I go to the bench to talk to and have fun with the guys. A curly dark haired guy sits on the bench with a basketball. To get him jealous I tell him there's a guy with nice green eyes at the end of the bench. He says there's only one person like that and he also has red hair (my dad has red hair and green eyes). He throws the basketball over his shoulder without looking to the red haired guy. This guy asked me if I liked the red haired person. I quickly explained that I was only kidding so as not to let him draw the wrong conclusions.

I left the bench and started walking around behind the players doing a Groucho impression. No one was paying attention. I got discouraged and left.

When I got up to the top level, the room there was something like an attic. Against the right wall was a bed I think, high off the ground. Under the bed were things of mine that I value. They were old mementos, jewelry from boyfriends, my Cross pen and pencil set, etc. I was straightening these things up, put them away--almost as if I was hiding them from someone who would take them.

It was quiet and I was alone in the room. I went to the window. Out front was a football field. The fans were cheering. I tried to get in on the cheering but I guess I didn't know the words. Just like the joke I botched to the basketball player, being ignored when I did my impression, walking past the girls in the bean bag chairs and now watching the fans but not really participating. I was seeing everything pass around me. I was very alone in that bare room. I had always been in the bands in high school. Now I watched the marching band get ready to play. I wanted to join them but I thought I'd get all sweaty and then I'd be all messed up for the dance I guess I was going to after the game. Besides, I had to take a shower.

3. I remember being at my friend's house who lived across the street from us in our old neighborhood. Mrs. C. had always been an extremely neat person, but when I walked in the walls were scrubbed so clean and the counters polished so hard they seemed to hurt.

Mrs. C.'s family wanted her to stop cleaning. They couldn't stand it. They were actually going to give her an allowance if she would just not clean so much. She knew she had them over a barrel and was using her cleaning to get her money--or something else she wanted.

4. Another old friend--M.V. (female)--was sitting outside in a van with her mother (I think). I went outside and sat in the car. A man told me to watch these three babies in snow suits. I guess I did that for a couple minutes, then left.

M. and I started to walk downtown. I suppose we were going to see a movie. My hair was really curly and I wanted to pull it back with barretts. As we were walking along, the street got dirtier and grossier. There were posters of Barbra Streisand making very strange faces, these were on the side of a wall.

The whole time M. was intent on explaining a way I could permanent my bangs. She seemed quite excited about it. I wished she'd be quiet. I thought, it would cost too much money for something so trivial. She said something about well that's the way Barbra Streisand does it. I thought, that's nice--she has all kinds of money.

5. At some point last night I dreamt of talking to my boyfriend E. on the phone. We were discussing the letters he had written me.

I also remember looking up in this dirty town into what I thought was just a dark night sky to discover it was instead a black brick ceiling. It was ugly and it leaked. I felt uneasy.

Once again I am amazed at how many and how clearly I recall these dreams I'm getting worried about continuing this project, however. I'm not getting enough sleep as it is. And now that I have to get up so early to recount and record my dreams, I am getting even less sleep.

On top of that, the quality of sleep is much worse. I woke up probably ten times and worried that I wasn't going to have any good dreams. Why is my subconscious so concerned about remembering these dreams?

Night: 3

Bedtime: 1:00am

Awakened: 7:20am

Questionnaire Completed: 7:40am

1. I have been dreaming of dreaming again. I can see myself talking to other people on the subjective nature of psychology and dreaming. I'm not sleeping well. This has got to stop. Why can't I have a normal dream anymore with all it's symbolism, compression, displacement and latent meanings? It's 4:26am. I'll go back to bed and try again.
2. Well, 4:30: I remember something about my roommate S. chipping off silver paint from something that is mine. I think it is the small lamp I am writing by now. I am alarmed and tell her not to do that. She replies with something like--it's OK because I own it. I then realized that she did own it and could really do as she pleased with it.

With this chipping of silver she was somehow getting rid of a piece of herself, somehow eradicating it by purposely destroying it or simply not recalling it. It was strange how this destruction of a part of her affected me though. In fact I felt her loss as indistinguishable from my loss.

I realized then how interdependent we all are, how connected we are. All people seemed to overlap, the distinctions were fuzzy.

3. Yesterday I had been thinking of perspective, and how we report seeing things other than how we see them because of our own expectations.

In my dream two other people and I were testing this. One girl was above the other person and I on the next floor. There was an

opening--a round hole in the ceiling/floor. The girl rotated the hole to different degrees to give various oval shapes. We were looking up from below, telling her at which point we couldn't see her and when we could see her the best.

I remember thinking the absence of glass (such as in a round lens) was strange.

I am disappointed in my inability to remember more. It seems whatever it was that had made my unconscious so accessible, is now fading. I own my unconscious, why can't I get at it?

Night: 4

Bedtime: 1:00am

Awakened: 10:30am

Questionnaire Completed: not reported

1. My sister and her two friends were at Girls' State. (I went in my junior year.) Amazingly enough, they were on the same floor. This is unusual, they always separate friends right away.
2. I am an assistant to Dr. B. (my psychology of personality professor) in my dream. He will be lecturing and I'll help somehow. There were about four other people around him. Dr. B. had a black briefcase which he set down and opened. We all happened to be wearing black pants that day. I don't think D.B. had a shirt on.

I was in a good mood, really happy, but the others were in uncharacteristically in solemn moods. Lightheartedly I said, "Are we putting on a magic show or something?"--silence.

In my dream I had a sore arm, it was bruised very badly. (When I woke up I realized I had been sleeping on it.) I reached out my hand to show Dr. B., then retracted it because I realized he shouldn't be bothered with my problems.

He took my arm anyway and with no emotion ran through a few simple tests to check if it was broken. I spread my fingers and clenched my fists. My reactions were slow, but not too bad. He was just deadpan. I felt he was minimizing my pain by acting as if it were nothing.

We went into a gymnasium where little girls were doing gymnastics on a big mat. One girl was going to do a routine but the others were crowding her. I tried to get them to move back for her but they wouldn't. D. B. was going to do the same routine after she was done. He was still very serious and still wearing black.

3. Something about church--

I was standing in our high school lunch lines near the cash registers. A boy with blonde hair picks up the same coffee cake with white icing that I took. He says kiddingly, "I can take a half a batch of macho."

4. I am standing outside the dorm with E. (S's boyfriend). He is leaving for an important test. He asks me to help him on the test with my ESP. He also speaks of his hand as a tool, something separate from him. E. says, "You'll have to concentrate on the left side first," and looking at his hand, "of course you'll both obey me." I think he meant for me to help him on the left side of his brain.

5. I met a very nice black girl and want to become friends with her. As we walk toward our house she notes how pretty some of the girls are in the neighborhood. She mentions something about a toy submarine and airplanes she had when she was little.

We get to my house and I see in our driveway by Gramma and Grampa G. They have driven up from Florida as they have many times before.

I am happy to see them and hug them both. My Gram hands me an envelope with a letter in it and three tootsie rolls. My mother takes them from me. I don't understand. She says we have enough candy in the house.

6. I see a wire mesh basket lined with white paper. It is filled with fudge. It is funeral candy. Someone says, "Let's take some!" Suddenly hands are all grabbing at the candy. It's my candy, but I can't even get any. Everyone is taking it.

7. I am sitting on a white horse--or maybe standing next to it. I have no clothes on and I'm at the end of a tunnel looking out across the water to a building on the other side.

A guy is sitting in a chair also in the tunnel, nude. After the other people who are there leave, I hope he will take an interest in me: He seems nonplussed. As if to make up an excuse he says, "I'd make romantic advances but I have to go soon."

I'm upset at this guy and as I walk by him I wring my wet hair out on him.

8. I'm talking to my mother about the greenhouse type set up that is in my bedroom. We are growing a few vegetables, that's fine with me.

Then my mother adds (rather meanly) that the space was supposed to go for a nice little room for me. I think it was going to be a bathroom.

I'm mad. I want the room. I feel cheated. She says very simply, "No."

9. My dad and I are standing in a library remarking about how much better it was than our high school library.

My dad walks over and sits down at a table with two girls who are eating candy. It is hard candy, so they have shiny silver hammers and vise grips to break it.

I walk over to the table to see what they're doing. I notice the candy and ask if I can have that little piece of red candy across the table. I can't reach it.

Night: 5

Bedtime: 1:00am

Awakened: 8:30am

Questionnaire Completed: 8:45am

(S fails to list any numbers.)

Pom pon squad, I couldn't get ready, practice at 5:00. Heidi summer.

Animals, zoo. Watching from above for the artificial fog to roll in but instead there was suddenly a covering of snow. What a change! I just couldn't recall very much.

Night: 6

Bedtime: 11:30pm

Awakened: 6:00am

Questionnaire Completed: 6:30am

1. I was trying to play a flute duet with another girl in front of a large auditorium with a few people. I had the first half practiced, but hadn't even played the second part. I thought I could get away with sight reading the rest of it.

When we walked down my mouth was dry--Not good for flute playing. It was a disaster. We fumbled around to get our instruments together, We weren't in unison, I didn't even play the first half right, the part I should have known.

I thought people who didn't know music wouldn't know that I'd really goofed; but they did notice, to my surprise.

They came up to me as I was putting my things away and I said things like, "Gee D. (S's name), that's too bad you messed up so bad."

The building was very big, with long hallways. People were clearing out. I think this was a school and everyone was going to a football game.

I was alone putting things away and started to feel nervous. I wasn't afraid of someone else hurting me. I started to walk faster, then to run. I was running from something in myself, from my own feelings of inadequacy. I knew I shouldn't run, because the sheer act of running would make me afraid. I could not help it, I had to run away. I felt much better back in the mainstream of people. I left the shadow behind.

2. I am outside standing on ice in the winter. It is very solid ice. This was, I guess, a lake frozen over. It was very thick and uneven.

My father was there, and another lady perhaps. They said the ice was very thick because they had tested it with a long sharp instrument. They they left me and I just stood there on top of the ice.

Night: 7

Bedtime: 1:30am

Awakened: 6:00am

Questionnaire Completed: 6:40am

1. I have a chemistry lab with a foreign professor. I dreamed that a foreign guy and girl and I (they had dark hair) were going to lab and were probably late. Almost there, we raced each other to the door in fun. We took three different routes to get there, someone hopped the fence and got there the quickest. That was probably the guy.
2. My birthday is this weekend.

I dreamed it was my birthday. I was at home celebrating with my parents. For some reason someone was impatient. I think I was taking too long to do something. I remember walking around in too tight purple satin shorts. I wasn't comfortable because I felt fat.

3. In my dream it is after Valentine's Day when I get a response from Dr. B. from the valentine I sent him. (I did send him a small one.) It was a regular size poster--handmade with a few red hearts on it. It said something about seeing for himself if I was sexy. I was excited to get any acknowledgment--it meant he was even interested in getting to know me. This poster was near my room in a very short hallway (short as in lengthwise). I was probably bragging about it to my friends.

4. In my dream my roommate S. had performed in our room a very important lab experiment. It was an excellent experiment dealing with biology. Everyone was impressed. I was proud of her.
5. I came in the room one day to find dark wood shelves and a table on the side of the room opposite me. They were very handsome pieces of furniture. I had a few porcelain nick nacks I thought would dress up the shelves but they were not quite right. J. (female) wanted me to put them (suddenly they were four small porcelain heads) on four wooden pegs in a wooden box. These heads were to be the foundation on which a small house would be built.
6. There was a dream about sitting down at a big desk with a serious man who was apparently my academic advisor. He wanted to get to business, but I was distracted by the people outside.

APPENDIX D

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Verbatim Transcripts of Subjects'
Pre-Sleep Lab Dream
Questionnaire Responses

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Verbatim Transcripts of Subjects'
Pre-Sleep Lab Dream
Questionnaire Responses

S U B J E C T` 1

Subject: 1
 Night: 1
 Bedtime: 2:15am
 Awakened: 7:45am
 Questionnaire Completed: 8:10am

1. My roommate was in our room when her boyfriend brought over another girl whom I have never seen nor heard about in real life. I was in a room with a loft. T. (roommate's boyfriend) said, "Here's my surprise," then he leaned in through the doorway and mouthed something (in the room I was in I didn't hear or understand him, but I shook my head no to his "mouthing"). Then he came in to talk to me. He told me I looked tired. Earlier I had been smoking pot and I said, "Oh no. My mom's going to kill me," and I felt very guilty. Then I looked out of the window, saw that it was snowing and asked, "Is it still snowing?" (The scene appeared to be as if I was looking out of Holmes Hall's front room's windows.) Meanwhile, a guy I have never really met was teasing the guy who played Dougie in "Sargent Pepper's Lonely Heart Club Band" movie about how to make a lot of money and Dougie was laughing. I thought to myself, "It must be hard to live the characters of the movie down."

Then the scene jumped to M. (roommate) and T. clinging metal gray stairs, with stairs above and below and a gray metal platform beside them.

Then I was in a gas station watching these two cards come in. By the pumps, the earth was "scooped" out with white gravel and a parked car was sitting there. Suddenly there was a crash and I was curious as to what had happened, so I went around and looked. The car that had impacted was white with rust spots. The driver (female) said, "Oh well. It was an old car." I said, "That's good. I was concerned about you," and I felt relieved.

Other things remembered about same dream:

In the first room I dreamed about, I was in a yellow bean bag chair by the window and there were bookshelves to my left and a desk to my right. Under the bookshelf was a lounge on which Dougie and a guy I have never really met were seated and talking and joking. Another girl kept walking in and out of the bathroom (Looked like the girl from across the hall in reality. Come to think of it, the room in my dream resembled her room very closely, except in my dream the room was next door and not across the hall.

Night: 2
 Bedtime: 4:00am
 Awakened: 8:00am
 Questionnaire Completed: 8:06am

1. A little girl in braids read the newspaper headline which said, "Reduce carbon monoxide poisoning. This article will tell you how.

It will also increase the sugar consumption of the viewers." The girl kept swirling her medium dark brown braids.

2. All I remember is a chunk of American cheese.

Night: 3

Bedtime: 4:45am

Awakened: 8:00am

Questionnaire Completed: 8:03am

No Dreams Recalled

Night: 4

Bedtime: 2:30am

Awakened: 8:15am

Questionnaire Completed: 12:37pm

No Dreams Recalled

Night: 5

Bedtime: 2:00am

Awakened: 9:15am

Questionnaire Completed: 11:25am

No Dreams Recalled

Night: 6

Bedtime: 5:00am

Awakened: 9:00am

Questionnaire Completed: 11:30am

No Dreams Recalled

Night: 7

Bedtime: 5:30am

Awakened: 1:00pm

Questionnaire Completed: 11:00pm

No Dreams Recalled

S U B J E C T 2

Subject: 2
 Night: 1
 Bedtime: 12:15am
 Awakened: 6:00am
 Questionnaire Completed: 6:01

1. I was standing in the Campbell cafe' by the window lobby door. There was a girl there--I didn't know her--we were waiting for something--"It" didn't come. I said, "Well I think we should go now. We can do 4 in 3 instead of 3 in 4."

Night: 2
 Bedtime: 1:00am
 Awakened: 5:50am
 Questionnaire Completed: 5:51am

1. I was going to a dance--I'm wearing a white outfit--(really nice) standing in Campbell Cafe' window.
2. Some girl, a friend of J., a guy from Mayo Hall, is going to drive us to the bar and back.
3. Hawaii, a man is playing with his face, beard and hair saying "There isn't a three."

*(I was out drinking last night and when I went to bed was quite drunk.)

Night: 3
 Bedtime: 12:00am
 Awakened: 6:23am
 Questionnaire Completed: 6:24am

1. P.A. (girl from my junior high school) walked up to me in my Economics class (it was weird I didn't recognize the room) She didn't say much or why she was here--(She goes to U of M and I haven't seen her for quite some time, about 1 year).
2. M.K. (another girl from high school) was sitting backwards with her family in a church pew at Church (St. John's). The funny thing is that the K.'s (girl's family) are Jewish and everyone in church is curious as to why they were there--she didn't see me.

Night: 4
 Bedtime: 11:30pm
 Awakened: 6:23am
 Questionnaire Completed: 6:24am

No Dreams Recalled

Note:

I'm really confused and frustrated I didn't sleep well--every 1/2 hour or so I would wake up to write down a dream--except I couldn't remember any--it was like I had conditioned myself to wake up after a dream--but I didn't want to--I started to get a headache because I was so confused--little bits of intangible thoughts would go wizzing (sic) by--but in the split second from the mind to my hand (to write it down) I would lose it--I was really getting frustrated.

Night: 5

Bedtime: 12:15am

Awakened: 6:23am

Questionnaire Completed: 6:25am

1. Hepititas (sic) is going around the bar--I went to get a hep. test--test negative. A lot of people at the bar.
2. Cata buses aren't running--I'm pissed off!--So we walked (T.S. (male) and I) from where ever we were to home.

Night: 6

Bedtime: 12:00pm

Awakened: 9:30am

Questionnaire Completed: 9:31am

1. K.S. (male) was wearing a black leather jacket.
2. I was with 2 others (I don't recognize them) in a huge ditch or something--it looked like I was down on an expressway, but there was no road or construction.

It reminded me of the south entrance to the Pontiac Silver Dome--except there was no building and no way out. It was sunny and the grass was a full, rich and beautiful green--I wasn't afraid but very anxious.

3. J.C. (male) (my x-voice and music instructor) was totally disappointed and thought I sang terrible at my reunion concert--I was very upset!!!--(I woke up about 7:00am or so.)

Night: 7

Bedtime: 12:45am

Awakened: 8:30am

Questionnaire Completed: 8:30am

1. Our family was vacationing somewhere at a very nice resort over Easter--My mom and I had gone shopping and bought a few things--it was a beautiful sunny day and there was lots of traffic. When we got back to the lodge everyone was gathering for the huge dinner--

the dining room was very large with glass windows on one side overlooking a beautiful lake. My brother, grandfather and I were arguing about the mailing address of the resort, it seemed like such a stupid thing to argue about. The tables were very elegant and I knew this was something my father had planned--Up on the entry level by the atrium a very close friend of the family, B. (female) was being ripped to pieces by these 2 "monsters," I mean monsters, they weren't people or animals--they were grotesque monsters--They were ripping her body apart into little hunks of flesh and they were burning her skeletal remains right there in front of all the family and friends and there was nothing anyone could do--I felt sick (end dream) I wasn't aware while I was dreaming but I know when I think about the dream all the nice scenes; the lake, the stores, friends, the dining room were all colorful and bright (except the dining room which had dim lighting) and the violent scene at the resort was dull and fuzzy and all was black or white, everything. (I woke up at 7:00am and went right back to sleep.)

S U B J E C T 3

Subject: 3
 Night: 1
 Bedtime: 12:00pm
 Awakened: 6:30am
 Questionnaire Completed: not specified

1. E. (boyfriend), C. (sister), my Dad and I are in a car. We are crossing a train track and a train is coming. My Dad is driving much too slow, the train is almost upon us. We are afraid that we won't make it so we get out of the car. The train is immense and lethal, but it is just barely inching along. Our car is right on the track and the train is within a few feet of us. C. and I get out first and escape by crawling by the train wheels. We have to push ourselves forward and sideways at the same time. It is a little bit of a tricky maneuver, but possible. I don't know what happens to my Dad, but C. and I are fine. I look around for E. but I don't see him. I begin to get scared, but don't really believe he could be hurt. Afterall, C. and I made it, he should be alright.

After the train passes I get suddenly weak when I look on the tracks and see a squished mouse. I know that it is E. I am in complete shock, numb with disbelief.

(This may be a continuation, because I felt in a state of shock.)

I am in some place I have never been. I think my object is to get home and I must follow the directions of others. I have to go back to the little cottage to get my tennis shoes and my pillow. I had forgotten them when I left there the first time. I think I had spent some time there.

To get to the cottage I must get past the dark area with the cement ramps and tall fences. It looks as if it would be difficult, but as it turns out I can walk through a gap in the fences quite easily. I do everything mechanically, without emotion.

2. I am in my dorm room standing by the closet looking at a football jersey that was J.B.'s (male) and a shirt that was M.B.'s (male).

I am in Warren, home visiting the family (visiting!). As soon as I get there my Dad sets me to the task of fixing the Valiant window. He gives me two cigarettes, which I am supposed to use to fix the window somehow.

This is not a command but a request; yet I feel obligated to do it. I have some experience in fixing this type of thing. I feel bad. I had thought that they wanted me to come home perhaps because they enjoyed my company. Everyone else was sitting at the kitchen table drinking coffee and talking together. I guess they desired my services more. What could I say? I couldn't refuse to fix the window, but that wouldn't mean that they want to talk with me anyway.

I quietly accepted the task. My Dad, in order to make it easier, told D. (male) to help me. D. complained and said, "Why? Can't she do it?" I didn't say anything. I didn't want him to have to help me if he really didn't want to. I was fixing the car window when my Aunt J. and Uncle E. drive by in their car.

Later on D. and I are standing in the bathroom. I am by the door, he is at the other end. There are a pile of his dirty clothes on the floor. He sees me and is embarrassed that his underwear are on top of the pile. He covers them up.

3. There is a certain very classy little shop on the edge of some mall. I bring another girl there to show her around. We leave but keep returning to this shop. The cashier is an older lady, somewhat snobbish; but I don't feel intimidated.

The last time we go back to the shop Dr. C. is there. He is trying to buy some stamps but the salesperson is fumbling it up. He insults the woman for her stupidity but she is too stupid to even know she has been insulted.

It is my turn next. I want to buy stamps. I count out the money needed beforehand. I give it to her but she says I am a dime short. Vaguely, I wonder why I was a dime short, but just give her the dime.

4. I live in an anarchist society. I am in an education building. Many people are in separate rooms, I am walking through. At one point I am wary, something actually smells wrong. I look back and remember the black boy. He knows something.

I continue on. There is a wall missing from one side of the room. Just beyond the building is a graveyard. There is a wire (barbed?) fence separating the graveyard from the room.

I can see myself in the graveyard. I am trying to get back to the room but I can't. My mother is trying to help by telling me the best way to get over the fence. I can't get back.

5. It is wartime, and I am in a troop of soldiers. I don't like our leader--a woman. Half kidding I throw a snowball at her. She makes no effort to stop me or even defend herself, but says, "You'll be sorry." I stop and continue our march across the snow covered field.

Under the snow we walk across are our victims. We have machine guns, but they are not armed. All we need do is shoot randomly at this field, and we will kill many of them. I know as I walk across that the statistics will read that 16 of them were killed.

J.E. (male) is walking backwards, holding his machine gun backwards. He says, "How can I kill them?" He doesn't want to hurt anyone. Neither of us see the sense in our hurting them.

After we are past the field I start a playful snow fight with one of my comrades. I mean no harm, but must stop when the fight grows in intensity.

Later, after our battles, I am standing in the driveway next to a large truck. I don't see that it is starting to dump a large amount of snow right where I am standing. Luckily someone tells me in time and I move.

The leader is standing by smiling a little and saying, "See, I told you." This was her way of warning me not to challenge her again. It was very dangerous. I could very well have been killed. I am a little shaken.

Night: 2

Bedtime: 11:30pm

Awakened: 8:50am

Questionnaire Completed: 1:30pm

1. There was a little boy and girl who were married. The girl looked like L.I.W. (female). They were in a quiet library in a school looking closely at a wooden panel. There was a lighted message that revolved past them. It said that there were other people in their classes that liked each of them, could be very interested in them. This pleased them, but they were together and it was enough.

The girl was some kind of a chorus girl. At one point she was up on a stage in an old theatre wearing the colorful pantaloons and such that the dancing girls used to wear in the old west. The whole dream was set back then.

She was dancing to the music in a dim old theatre with only one man watching. There were spiders on the ceiling. She was trying to act older than she was but it wasn't working. She was clumsy, and not very good at dancing though she tried.

Later the little boy and girl were out in the main part of town. They were off to the side near the horses. The little girl's dress top was ludicrously large. To be funny she put apples in her top and showed the little boy. The other people in the town saw and started laughing and ridiculing her. She was embarrassed and turned around, away from them.

2. I had another dream that I found S. (female) again. I was standing in curlers when she came unexpectedly. She had short brown hair. I didn't want her to see me in curlers so the others entertained her for a minute while I took my curlers out. S. and D. (both females) were there, too.

When I first saw her I had wanted to hug her, but didn't want to be seen in curlers. Now I have the curlers out I can't really hug her. The moment of reunion has passed.

3. It was my birthday and my friends and family were having the party for me outdoors before I had to leave again.

We hadn't even put the cake or anything when I had E. (boyfriend) take me down the road that led to wherever I was going. Then I stopped and thought that I would go back and at least have a piece of my own birthday cake. So I had E. take me back.

I was laying down on the ground with a cushion stood up against my back. I was talking for a minute, with a fairly heavy guy I know. It may have been C.W. (male). He was my friend from a while ago. I was talking very close to him. I may have even kissed him. My mother came and made me stop.

I was sitting on the ground across from my mother. For my birthday she had gotten us both large bottles of many different types of perfume. These are expensive--somewhat indicative of the way my parents have been enjoying their money, lately, since my Dad got his great job.

We were pouring these perfumes into the smaller empty bottles we had on the same type perfume.

The first one I had was Avon's Roses, Roses. My Mother almost poured the wrong perfume in a bottle but I pointed it out to her before she did.

4. D.R. (male) was questioning me about a certain incident between E. (male) and I the day before.

With his skeptically raised eyebrow he asked me if I wasn't pretty tired. I simply ignored his questions, but he persisted.

Night: 3

Bedtime: 1:00am

Awakened: 7:00am

Questionnaire Completed: 7:30am

1. There is a kind of freedom of the self that is coiled in a spring. The spring has three levels of elasticity, so the freedom is relative to the level you are at. The lowest level is when the spring is most compressed and it is hardest to get at, but the freedom released and the greatest.
2. (Recurring theme throughout the night.) A group of six girls were standing in my hallway in yellow rain coats and hats. Three of us were from one study group, and three from another.

J.G. (male) approaches us and says that he would like to belong to our group. We told him, "But we are two different groups." He said that still he would like to be a member of the whole thing.

I assured him that we would accept him and welcome him. He was comforted. I said we were going to have a meeting in the hallway in just a few minutes.

Night: 4

Bedtime: 12:00pm

Awakened: 8:30am

Questionnaire Completed: 3:00pm

1. K.S. (male) is giving a speech for some class in a big brick building with large glass doors. I was listening to the first part of his speech but left before he finished. As I was walking away from the building K. caught up with me. Suddenly I wondered why I hadn't waited for him. It had only been a short while after all. It was a short speech, just like the last one he had given.

His hair changed to blond-like E.'s (boyfriend). He kissed me upside down.

2. I was on a ship with a lot of other people. It was announced that someone was coming. Everyone hurried to get inside, to practically batten down the hatches. It didn't make sense, it was only a person coming, not a storm. But I did as everyone else, and went to get ready to turn in for the night.

I was rooming with P.L. (female). When I went in the room she was arranging her bed on the couch so that her head wouldn't hang over the edge.

I was walking between the rooms, not sure what I was supposed to be doing. In my room P. was laying on the floor and J. (male) was there. They were going to get very well acquainted, so I left.

3. I was on a softball team and we were going to have a game. The girls were the Girl Scouts in my old troop. I went to a small building like a Dairy Queen and saw a lot of my other friends. They were on another team that was going to play at the same time.

I left with C. (female) to go to R.M.'s (female) backyard where we were going to play. C. and I go into her garage. I remember thinking that the condition of the garage was familiar; ours was about as cluttered.

We had to open the other side of the garage to get to the backyard. This door slid down instead of up and I had to step over it. C. said that there were a lot of spider webs out there. I went into the yard anyway. The yard was quiet, enclosed, damp and surrounded by dense foliage. The spider webs didn't concern me much but I

remembered thinking the sunlight wasn't good enough, as if we were going to be trying to get a tan. I think I went back into the garage.

4. I was listening to my Aunt and Uncle arguing about something. It was over the funeral preparations of one of her servants.

I think the old woman wanted to be cremated across some fake green branches on a metal support structure. The green branches looked like artificial Christmas tree limbs. My Aunt kept holding them up and looking closely at them, then shaking her head no. She didn't like the whole idea. She didn't care what the servants requests were, she wasn't going to stand for it.

I kept seeing the branches on a huge (size of a football field) frame, but my aunt looked at them in a vertical way.

Night: 5

Bedtime: 12:00pm

Awakened: 6:45am

Questionnaire Completed: Time Not Specified

1. I was doing something that had to do with examining animals or plants. I was perhaps finding out how their genotypes produced their particular phenotype. I asked a guy about a certain case, referring to either a stuffed animal, an extinct animal or a lacquered suit of armor. I believe it was the latter. The guy said there wasn't much to worry about, since the suits of armor were rare. He used a condescending tone as if I should have known they were rare.
2. I was at home for a visit. I was taking a shower in the room next to my old bedroom. I had on one small light by the shower and the rest of the room was dark. It was really neat, kind of dramatic. When I got out I put on a white turtleneck and a white wrap around my bathrobe

C. (sister) took a shower, and in the meantime I put lemon creme rinse on my hair. I was thinking that it probably wouldn't do my hair a lot of good, that it may even make it a little heavy or oily.

I have to wait to get back in the shower to rinse out the creme rinse. It is a little frivolous to have done it this way because I got the bathrobe wet already and I'll need it again to dry off.

I go to take a shower again, but now there are several lights on. First I turn off the overhead light, then the closet light, but the hall light is still on! So I go to turn that one off and notice the bedroom light is on. I see L. (female) sitting in bed with her Winnie the Pooh. She seems young. I turn off that light.

No matter how many lights I turn off, I can't seem to capture the same mood that characterized the first time.

Night: 6

Bedtime: 12:00pm

Awakened: 6:45am

Questionnaire Completed: Time Not Specified

1. This was a beautiful dream--so much fun! I was in a big, wonderfully furnished mansion. It was in my parents' house! I was going to be giving a party for some of my friends. I went down to the kitchen to check and see if there was enough to serve my friends. There was plenty, and there were large varieties and delicious appetizers.

Night: 7

Bedtime: 1:00am

Awakened: 9:00am

Questionnaire Completed: 5:00pm

1. I was sitting on a couch with E. (male). I was facing him with my back to the other people who were in the room paying no attention to us. He had his hand on my back under my shirt. I had my foot on the wooden handle of his fork that was on the floor--only it wasn't a fork handle that I was rubbing, and I was worried what this seemed to be leading to. We weren't saying much of anything to each other; it seemed to be just below the surface.
2. I was in a building with someone else and there was a girl in the hallway. I asked her what her major was and she said she wanted to be a psychiatrist. I was pleasantly surprised. I said, "Oh, I've only met one, no two other people here that want to be psychiatrists." I'm always happy to meet someone with the same interests. I wanted to talk to her some more, but I guess I had to go. I remember being in a playful mood. When I walked down the hall I stopped at a drinking fountain that had four streams of water like a small ornamental fountain. I was playing with the water, making it dance or something. They asked me what I was doing. I said I was just having fun, then continued on my way.

I went down to eat lunch. I was one of the first ones in the cafeteria. I was still feeling silly, I saw J. and L. (both female). My brother was walking toward me with a strange look I didn't know how to interpret.

3. I followed E. (boyfriend) upstairs into a building. We saw someone we were trying to catch up with. When we got to the floor we thought he stopped or, we couldn't see him. He had disappeared into one of the rooms or down the hall to the right.

E. opened a door to try to find the guy, and I saw a retarded man lying prostrate on the double bed. The look in his eyes scared me. He looked only barely alive.

APPENDIX E

**Verbatim Transcripts of
Subjects' Nocturnal Verbalizations**

APPENDIX E

Verbatim Transcripts of
Subjects' Nocturnal Verbalizations

S U B J E C T 1

Subject: 1
 Night: 6
 Treatment: C
 Alarm Set For: 8:00am
 Lights Out: 2:37am

<u>Clock</u>	<u>ET</u>	
2:55am	18	"Mm, it's cold...(speech now quite slurred) I'm gonna do this project paper...There's a glass window behind 'em...and the glass window is brown."
2:57am	20	(End)
3:52am	75	"Peanut butter!" (almost shouted)
5:00am	143	(Bell tower chiming in background) "Ring!" (almost shouted)

Night: 7
 Treatment: C
 Alarm Set For: 8:00am
 Lights Out: 2:58am

<u>Clock</u>	<u>ET</u>	
3:00am	2	"There's a whole series of flashing lights...they're jumping back and forth and going in circles."
3:01am	3	(End)
3:03am	5	"I keep seeing a series of short little images...like an apple...an arrow...a leg...a person in a long white robe...a tulip..."
3:04am	6	(End)
3:07am	9	"There are three suckers on a dial...there's a mexican hat over them...I am in a toy store...they have lots of little dolls...little stuffed animals...(speech now slurred) and little colored egg."
3:09am	11	(End)
3:12am	14	"There's a purple _____ (mumbled)."
4:05am	67	(shortly preceeded by the sound of birds outside the window) "Mm, mm, bird." (almost sung)

Night: 8
 Treatment: C
 Alarm Set For: 7:45am
 Lights Out: 3:02am

<u>Clock</u>	<u>ET</u>	
3:05am	3	"There's a cage..with glass around it...with a little gerbil inside...The gerbil's making little scratching sounds...he's eating a sunflower seed...he's up on his hind legs and his stomach is white...(speech now slurred) he seems to be looking up at something...he's flushed in can in the cage...there's _____ (mumbled) in the cage up in the _____ (mumbled)."
3:07am	5	(End)
3:09am	7	"I'm in a record store...in Meridian Mall...I'm looking for a record but I don't know which one...Some of the records are jumping out at me...(lengthy pause) I'm looking in K-Mart behind the guard desk...There's alot of people coming in...An old lady with a shopping cart...and a little kid trying to get out but there's too many people coming in...(lengthy pause) The lines are really long. They're not moving...Some guy just made a face... He has red hair and glasses."
3:14am	12	(End)
3:17am	15	"Mom and Dad are eating cookies and Dad is feeding one to the dog...(speech now quite slurred) It's the bottom of an escalator...At the top of the escalator there's a show full of stuffed animals."
3:18am	16	(End)
3:20am	18	"I'm back in K-Mart...and I am at a cash register."
3:22am	20	(S groans then states the following) "_____ (mumbled) Baby sitting equipment (speech now extremely slurred) ...(lengthy pause) _____ (mumbled)."
3:23am	21	(End)
4:13am	71	(Speech quite slurred) "Open this door open and split."
4:15am	73	(Speech quite slurred) "Go ahead."
4:34am	92	(Speech almost unintelligible) "You shoulda!" (almost shouted)

Night: 10
 Treatment: C
 Alarm Set For: 7:45am
 Lights Out: 2:56am

<u>Clock</u>	<u>ET</u>	
3:01am	5	"In the church."
3:02am	6	"Image is fuzzy."
3:04am	8	"The window is purple. If you look there the sun's shining in."
3:08am	12	(Speech now quite slurred) "Little things in 'em."
3:09am	13	(Speech now more intelligible) "I said something red. Can's understand what I said...Oh, I said, 'Don't worry about it.'"
3:10am	14	"I'm in the biology lab...trying to make a sample culture... Everybody has it lined up except me...Put the sample on the slide...I can't even put it on the slide...(lengthy pause) Can't get the microscope focused (S now sounding mildly distressed)...(lengthy pause) You're still a great class (distress now absent from voice). I think the picture's being jerky."
3:13am	17	(End)
3:53am	57	"Mm hmm!" (vocalized quite loudly and staccato-like)
4:58am	122	"No-o-o-o." (S then emits a loud, distressed-sounding groan)
5:58am	182	"Huh unh." (quick, staccato-like vocalization)

Night: 11
 Treatment: C
 Alarm Set For: 7:45am
 Lights Out: 3:36am

<u>Clock</u>	<u>ET</u>	
3:43am	7	(S sighs heavily, then states the following) "There's a great burning field...and I need a little help...(speech becoming slurred) There's nuts on the trees in term... Really hot...The cure of the tree's so cool...(S sighs) I'm under the tree...Wanna walk across the hills?...They're not very big hills, just little ones...There's a few houses on the horizon...Little red ones and little white ones...So hot (almost groaned)...There's a cool breeze blowing from the left."
3:48am	12	(End)

<u>Clock</u>	<u>ET</u>	
3:50am	14	"I'm standing in front of a huge house. It's white with red bricks...and white pillars. It's three stories high and real spread out. There's a black limousine in the driveway...and four old upright boxed things (speech becoming quite slurred). _____ (male name) and I, we were got vans. I'm wearing no jewelry _____ (mumbled). And it's red, with waves and gold borders...Um...There's a man, with red hair...He's wearing a red coat...Oval buttons and gold ornamentation...He's just standing up to his box...Oh, and he's got this little red hat on too... And he brought me inside...Looks like Irish...Mm, it's really warm. It must still be night...(lengthy pause) cooling us off...Got a huge hallway...A gray house...It's got _____ (mumbled)...A closet...an antique mirror... I turned left about halfway down the hall...and I'm still waiting...Living room's to the right."
3:55am	19	(End)
3:59am	23	"I'm out in the sun on a beach. There's a little cliff behind us. The beach isn't very wide...Only about...mm... twenty feet wide...(speech becoming slurred) There's all this black seaweed washed up right by the cliff... It's brown and green too...Mm really small _____ (mumbled) ...(lengthy pause) Just laying out in the sun. It's so warm...The waves are lapping along the sand...(lengthy pause) We are now in the dorms (speech now extremely slurred) ...Why am I talking on the phone? It probably doesn't matter...(lengthy pause) This guy starts with, 'Oh ya? What do you know?'...(lengthy pause) 'Ya, well, ah, dear I know (S now sounding impatient).' He must be talking to _____ (female name). Only person she sees at home. One of the only people he'd talk to like that...(lengthy pause) I'm at Cedar Point..._____ (mumbled) at that picture place...It's really hot...and _____ (male name) just asked of my acceptibility...It's just _____ (mumbled) while next door it's _____ (mumbled)...and there's the sides open but there's only purple birds (speech now very slurred)...Mmmmm, a long purple dress... and _____ (female name) is wearing a yellow dress...and _____ (female name) is wearing a red dress...and _____ (male name) is sitting between _____ and _____ (the two females alluded to above)...In the background is a mirror...and _____ (mumbled) is around all dressed in black...and a minister and _____ (mumbled) all dressed in gray is a businessman..._____ (several unintelligible words)..._____ (mumbled), can't tell what he's wearing. All I can see is his face...I'm trying to reach _____ (female name)..._____ (several unintelligible words)...

<u>Clock</u>	<u>ET</u>	
		There's this guy's gun...a musket...and _____ (male name) is standing, moving right in front of me...I've got my arms around him...and _____ (female alluded to earlier) has got her arms around _____ (male alluded to earlier) and _____ (female alluded to earlier) is standing right in front of _____ (male just alluded to) and _____ (female name) is off in a corner picking her fingernails...she's hungry but she's off in a corner."
4:08am	32	(End)
4:10am	34	"Mmm, my friend M. (male) just went on the elevator... He's _____ (mumbled) got to get off... 'But you're laughing at the elevator.'"
4:11am	35	(End)
4:13am	37	"E." (female name)

S U B J E C T 2

Subject: 2
 Night: 2
 Treatment: A
 Alarm Set For: 6:10am
 Lights Out: 11:16pm

Clock ET

12:25am 69 (spoken rapidly) "Til-keel-see-dee-tee-tilch-ee-til"

1:05am 109 "O-o-oh. I feel like, you know, terrible...and funny.
 'Cause you don't remember, well I don't know if you do
 or not, but a lot harder for the day right afterwards a
 successful sleep...Does that make any sense at all? No."
 (spoken loudly and quite rapidly)
 End

Night: 3
 Treatment: A
 Alarm Set For: 6:10am
 Lights Out: 11:19pm

Clock ET

1:14am 115 "Hi."

3:10am 231 "No."

Night: 4
 Treatment: C
 Alarm Set For: 6:10am
 Lights Out: 11:46pm

Clock ET

11:49pm 3 (spoken in a groaning, anxiety laden voice) "So...(long
 pause) I'm so confused...(long pause, during which S
 groans sporadically) C.L. (male name)...I was just
 seeing C.L.'s folks...But he hasn't lived there...for
 ten years...(long pause during which S groans occasionally)
 I'm so confined...I can't...move alone (S virtually
 groaning as he speaks)...R. (female name)...She's dressed
 up like a witch...Stop...Stop it...(long pause) It hurts
 (S's voice now cracking)...Oh."

11:54pm 8 (End)

11:58pm 12 "I'm not going to do this...(long pause) I don't care...
 Unh unh...(long pause during which S's breathing becomes
 noticeably more rapid and he occasionally groans) It's
 too fast...I can't talk that fast" (S now sounding
 distressed).

12:01am 15 (End)

Clock ET

3:19am 213 (S scratches himself, then states the following in a voice that is almost unintelligible) "I live here."

3:40am 234 (S turns over in bed, then states the following) "Half flag, half vocal."

Night: 5
Treatment: E
Alarm Set For: 6:10am
Lights Out: 11:53pm

Clock ET

11:54pm 1 "Something's wrong with the light...It keeps flashing... Turn it off!...I'm crawling in my travel bag...and I'm sitting on the toothpaste...Everything's so big...My brush, it's so big, it's bigger than me...And my razor... it's as big as the room in here...(long pause during which S inhales sharply, then states the following) Don't touch me (stated in disgusted sounding voice)... Filthy swine...There's a big silver ball rolling at me... I'm inside a pinball machine...And it's so weird. The flippers are so big...and it's...You have to push those things so hard...to make them ring...When the ball hits it it's so easy...P. (female name)...O-o-oh, it's beautiful...It looks like...no it doesn't...a very pretty wedding...I'm on a...who's wedding? (speech becoming slurred)...I can't see anyone's face (voice now sounding gravelly)...She doesn't have a face. It's a huge pearl sitting on her shoulders, with a veil but there's no face. Shiny white pearl...My legs hurt...You tacky bitch (spoken in a haughty voice)...(long pause) It's so degrading...But then I suppose you don't care... Worthless...You're so rude...(long pause) What's the message?...There's a cow over there and it's having a baby...And it hurts. It looks like it hurts...And it's cute (squealed with delight)...It's so ugly it's cute... R. (S's roommate) is telling us how his uncle's farm... how they...It's terrible...It's cruel...racing animals is cruel. Horse racing cruel. You beat the horse to death just to win. What a waste of life. Dog racing is worse. To actually spend time to train something to do that...how sacreligious...Do you think the horse really knows it's winning? All it knows is that you're beating it to death and it has to go faster. The harder you beat it the farther it runs to get away from the pain. I think it all depends who can hit harder...(long pause) I'm watching the sky (speech becoming slurred)...It's so hard on my...It's not real sky. It's fake sky...

Clock ET

I'm in Abrams Planetarium...B.'s (El's name) doing a demonstration...(long pause, during which S inhales sharply, then states the following) Why did you come? ...If you don't answer my question I won't talk to you... I just turned into a skinny triangle...and so did he... and everything's a skinny triangle...No, they're not triangles, they're diamond shaped. Everything's, the trees and the people, everything is a fuzzy diamond shape...Move over. I need more room (S rolls over in bed as he states this). Oh that's good. No. I want a new bed. This one's too small...It's so hard to...to actually sleep when someone's in bed with you...Why? 'Cause you don't go to bed to sleep...originally...unless you're very tired. Then you go to bed by yourself...No I'm not a corrupt person. Those are the facts of life. Who are you trying to kid? Quit hassling me. You love it and you know it...My legs...they're beating against the grass... I'm getting sore...But he won't tell me why...he came... You people are all alike...I don't care if you think I'm prejudiced. You're rude...tacky. You have no respect for yourself...If you ever come near me again...I'll call the police...and have you arrested...R. (male name) came over for dinner. It was good to see him. And we had strawberry shortcake for dessert. And it was good. And we have to go...eat lunch with T. (male name) and R. (female name) and H. (male name) tomorrow...Well you should talk, I live with them...Each of them _____ (mumbled) right along (speech becoming slurred)...You're talking like he's gonna drop out of school...And I was so happy there. I felt bad that I felt so happy but I was strictly looking at my personal gain and convenience...I mean that's terrible to say that... 'cause I don't believe that... Yes (almost groaned)...ah-h-h (S rolls over in bed)...No... (long pause during which S inhales sharply and groans) I put the wrong address on it...They'll forward it...(long pause during which S begins to hum a tune) Move over (spoken with a grunt as S rolls over in bed) Ah."

12:20am 27 (End)

12:28am 35 (S rolls over in bed, then states the following) "Move over. Thanks."

12:44am 51 "Mm, hmm. Mm, hmm."

1:02am 69 (S inhales sharply, rolls over in bed, groans, then states the following) "No, I don't want to go."

2:02am 129 (S rolls over in bed, emits two loud groans, then states the following) "Huh unh!"

<u>Clock</u>	<u>ET</u>	
2:21am	148	(S rolls over in bed, then states the following) "It's snowing."
2:39am	166	(S rolls over in bed, then states the following) "Able to do (almost unintelligible)."
2:48am	175	(S rolls over in bed, then states the following) "Mm, I'm through in here (almost unintelligible)."
4:28am	295	(S emits a loud, short snore, then states the following) "Warp."
4:58am	325	(The loud sound of a heavy door closing can be heard in the background, followed four seconds later by S rolling over in bed, after which he states the following) "Huh?"

Night: 6
 Treatment: E
 Alarm Set For: 7:00am
 Lights Out: 12:22am

<u>Clock</u>	<u>ET</u>	
12:23am	1	"Let me drive...Mm, unh...(long pause) I'm at the dance studio...Mm hm...Happy feet. Mm hm. Turn. Step... Move over (S then rolls over in bed) That's good... They told...that."
12:25am	3	(End)
12:27am	5	"Quit twisting my arm."
12:52am	30	(S inhales deeply, rolls over in bed, emits several groans, then states the following) "Give me the _____ (mumbled) tape. I can't leave the tape on the window...(long pause) There's a lady and her kid."
12:54am	32	(End)
1:02am	40	(S rolls over in bed, then states the following) "Ah-h-h...Unh huh."
1:15am	53	"A...one...one beer (spoken loudly)."
2:36am	134	(S rolls over in bed, then states the following in a belabored voice) "Trite _____ (mumbled)."
4:12am	330	(S rolls over in bed, emits several groans, then states the following in a gravelly voice) "No."

Night: 7
 Treatment: E
 Alarm Set For: 7:15am
 Lights Out: 1:36am

Clock ET

1:37am 1 "I'm in a...a...I'm in a tunnel (speech slurred)...and I'm going fast. The lights are whizzing by. I'm... slow...down. They're slowing down...it's really...What are you doing here?...Unh huh...So how's your mom? Who care's, right? (short laugh) Are you getting along any better?...Unh huh. I hear you had a big party and they called the police. Did you get in any trouble or anything? ...Oh, I see. And you and D. (female name) don't talk anymore...Unh huh...No...Ya. Oh I don't like their housekeeper either. She's...she's a real bitch...I complained about her once to J. (female name) and D.'s mom. She's been nicer than pie to me since...I don't know...I'm just glad our housekeeper isn't black...'cause ...I'm really not...unh unh. I know it sounds hypocritical, but..._____ (mumbled), his friend's black. D.'s (male name) one of the neatest people I know...But you put him in your house and...D. (male) and I lived together, can live together fine. I just can't stand having...well, maybe it was just one bad experience. I never did like F. (female name). She's always sneaky (contempt evident in S's voice)...I never trusted her farther than I could throw her...I'll never forget the first time I got...unh huh...Oh, she doesn't even get near my room any more. I told her the next time she went in there she'd be fired. She laughed at me, E. (male name). Told my mom and my mom told her that just because she paid her didn't mean that I wasn't part her boss. If I didn't like her she'd be out on her ass...and so she went one step too far. She took a...well, nobody knew at first but...they all nickel and dime you to death (voice now gravelly)...they're all alike. Say, she'll take...like today she'll take a... a like a sheet or something...you know from the linen closet. Well, fuck when you've got stacks and stacks and stacks of sheets, you know, it's...after a couple weeks, shit, she's got a couple sets...She takes silverware. Hell, she doesn't need to...need to get paid. She collects twice as much. That's why they fired, why...ya. No...unh huh. Well I like R. (female name), she's the new one... unh unh...Mm hmmm, she's really nice. She's more like a friend...Ya she's a little German lady. She's about... well, she's probably about five-five...unh huh. She's got a real cute little accent. Mm hmmm...Yes...Oh, and she wears the cutest little...F. always looked like hell.

ClockET

She looked like a cleaning woman. She'd wear this stupid old day dress, you know, and tennis shoes and white socks. She looked like a real...ass (contempt evident in S's voice). And she had no business being in the house...and, uh, people would come over and she would answer the door and she'd just look really scuzzy. Well, R. isn't like that. R. always wears, she wears little...it's not really little, it's a nice black dress with a white-like smock type apron and um she really looks official. Unh huh...no they had it catered. Right now, no I didn't go home for that. My mom wanted me to come home but I had too much to do... Yes, my sister...Unh huh...She bought a lot in Milford. It's ridiculous (spoken with disgust)...Oh it's in a real, brand new sub and I guess there's only three houses up so far. And, you know the building restrictions and you can't build a house that's smaller than 2,300 or 23, ya 2,300 square feet. That's the smallest you can build... Unh huh. Well there's nothing on the lot, it's just an acre and a half and they paid, I don't know, \$29,000 or something for it, which is ridiculous (S's voice becoming louder and sounding irritated)...Mm hmm, I know, you put a couple trees on the lot and they jack the price up a few thousand dollars. Mm hmm...No...(long pause) Hi D. (male name)...No (almost groan)...I'm not, I don't want any (speech becoming slurred)...Where's everybody?...Oh ...Well why don't you come over and stay at my house... I can't stand staying there all by myself (S's voice becoming quite gravelly)...Your's is worse...Well at least in my house it doesn't take ten minutes to get to the other end (S laughs)...Alright, eight (S laughs again)... No, somebody could probably blow up the other end of the house and you'd never know. And you wonder why I don't want to stay there...Unh unh, it's just creepy (S's voice barely audible)...You isolate yourself. Unh huh. You fix something to eat. You go...Unh huh...You go in your room, you shut the door...and you either watch TV or you listen to the stereo. Talk on the phone all night... And you never leave your room...'til the stupid ass house housekeeper wakes you up in the morning...No, she doesn't do that anymore (S's voice sounding gravelly once again). She calls from downstairs...Ya-a-a, she's got her own key."

1:50am 14

(End)

1:51am 15

"I'll be darned (spoken very softly)...Unh huh...Unh unh."

1:53am 17

"Huh...Yes I live here (spoken in a stern-sounding voice)... What room? You happen to be sitting on my bed (S sounding haughty)...Well, if you were a little more informed you wouldn't have this problem...Now, if you'll excuse yourself. I have things to do...(long pause) Someone's knocking at the door...Yes?...Yes, I am...Uh...They just

<u>Clock</u>	<u>ET</u>	
		slammed the door in his face...I don't know who. It scared me...(long pause) Unh unh...That piece of bread is alive... That one on the macaroni and cheese...It's moving a bit...Oh."
1:57am	21	(End)
2:29am	53	"No-o-o (almost groaned)."
2:37am	61	"Uh...I'm not asleep."
5:04am	208	(S rolls over in bed, then states the following) "If something stares me, I'm hexed (speech slurred)."
5:16am	220	(S rolls over in bed and whispers the following in a voice so soft that it is barely audible) "Who's to cause the hex...J. (female name)?"
6:25am	289	(S rolls over in bed and whispers several unintelligible words).

Night: 8
 Treatment: E
 Alarm Set For: 6:10am
 Lights Out: 12:45am

<u>Clock</u>	<u>ET</u>	
12:45+am	<1	"Mm...Yes. It's terribly interesting (spoken in a bored-sounding voice)...Unh huh...That guy is a total asshole ...They obviously came here...for that reason...Yes, B. (male name). Oh, that was this week? (Speech becoming slurred)...Personally, it's too much for me to handle. I think it's really sick (voice now sounding gravelly)... Unh huh. I forget, ya...Wednesday night the meetings are really good. Unh huh. We can get rid of the business first and then talk about whatever the selected topic is for the week. And it's usually published in the church paper. Mm hmm...Ya-a-a. Unh huh. This is H. (female name). She's the president of this chapter...No...It's in West, no, wait where is it? I forgot...I keep wanting to say Los Angeles, but I don't think that's right...It might be San Diego, but I'm not sure. I don't know. I just know I'm not going. Unh huh...Unh huh...I don't care ... (long pause) Unh huh...That's what I consider...Unh huh, he's typical...That's my title for the _____ (mumbled). Born again Christian. What a trip in the first place (speech slurred)...Uh...Subtitled, 'Typical Middle Class Straight.' Insecure. Thinks he's got all the answers and that we're all the result of a broken home (S laughs). Obviously he's got his head up his ass... Gross!...Get away from me (spoken with disgust)...You're

<u>Clock</u>	<u>ET</u>	
		an utter dog...Uh...Mmmmm...oh-h-h...No (S slowly and deeply inhales, then exhales)...Unh huh (almost groaned)...K.S. (male name)...No. They rushed me and tried to tell me that, 'Oh no, Sigma Alpha Mu's not Jewish.' I felt like I had to put on a Star of David just to walk in the door... No it's not insulting (spoken through a yawn)...'Cause there's nothing you believe in that insults me or's against my religion. 'Cause you have to realize that the Old Testament is as much a part of me as it is of you...No... He must have been really screwed up. He walked around with a big guilt complex...Unh huh. He thought he had killed my savior and he, it was up to him to bear the guilt of ya, then that...there's a shark over there...Oh, oh... Unh unh...No I...No I don't go...No, not recently. M. (male name) goes to the bar all the time."
12:55am	10	(End)
12:57am	12	"Oh...Unh unh, Unh unh. No. I can, not going to...I don't want to (voice becoming softer)...Unh huh."
12:58am	13	(End)
12:59am	14	"No I don't want a beer, thank you...Uh...Yes-s-s, J. (male name). Unh unh...(long pause) No, J., Nay. M. (female name) was after you."
1:00am	15	(End)
1:02am	17	"Unh huh...(long pause during which S inhales sharply) No. Stop it."
1:17am	32	"No (almost shouted, then followed almost immediately by rhythmic, deep breathing)."
2:00am	75	"Node."
2:45am	120	"D. (male name followed by several seconds of lip smacking)."
3:13am	148	"Four, huh? (almost shouted). Ouch! (whispered)."
3:25am	160	"Unh unh (whimpered)."
4:17am	212	(S rolls over in bed, then states the following) "Toast ...don't cover the toast (spoken in measured tones, speech slurred)."
4:34am	229	(S rolls over in bed, then states the following) "Don't there...look all puzzled (almost shouted, speech slurred)."

Night: 9
 Treatment: A
 Alarm Set For: 7:20am
 Lights Out: 12:37am

<u>Clock</u>	<u>ET</u>	
12:40am	3	"Unh huh. Somebody's checking a light...Mm hmm... Let me try...O-o-oh...(long pause) Unh unh...(long pause) No."
12:42am	5	(End)
1:14am	37	(S rolls over in bed lightly, then states the following) "It's beauty-funny-boo. Mmmm."
2:35am	118	(S rolls over in bed, then states the following) "We _____ (mumbled) right around one of the walks (spoken very rapidly)."
3:10am	153	"A little white, a book (spoken in measured tones)."
3:28am	171	"Oh, dear (whispered so softly as to be barely audible)."
5:19am	282	(S rolls over in bed lightly, during which time he states the following) "Oh, snow (almost grunted)."

Night: 11
 Treatment: E
 Alarm Set For: 7:00am
 Lights Out: 11:12pm

<u>Clock</u>	<u>ET</u>	
11:12+pm	<1	"_____ (mumbled) beach. I'm at Ja...I'm at Jefferson Beach Marina...I'm on J.'s (male name) boat...It's rocking back and forth, back and forth...And, ah...it's night. It's real dark and we can hear...the Coast Guard heli- copter...Somebody fell in the water at the Marina next door (S's voice now sounding gravelly)...And it's the next day and we're going over to the other side to see if M.'s (male name) sailboat's here...The boat's got a navy blue and red stripe around the bottom...It's a...a Chris triple cabin...36-foot...It's alright, it's nothing to write home about...I'm on the 'Crockett'...and I'm in the head adjacent to my bunk room...and I'm seasick... but it's OK...The fresh air from the porthole, it makes everything alright...And I'm...asking, No, I'm sitting at the wheel...and...Captain M.'s telling me what to do. We're coming to a new course heading...My dad's down on deck issuing a bunch of orders...and it's really rough. I like it when it's rough, though. It's better than just

ClockET

going through the dead water, it's so boring...And J. (male name) is laying out on the back deck...the after-deck. He's the assistant engineer. I haven't seen the chief engineer all day...And it's alright (stated with bored resignation)...It wasn't too bad...A lot of weird people. Mm hmm. It's like it's impossible to get a good crew anymore...And, ya know, a 165-foot boat isn't anything to fool around with if you don't know what you're doing and my dad's having a hard time getting some decent people this season. I guess they're all a bunch of screwups...And...No...I'm inside...(long pause) I'm... walking around and I'm inside...a great big huge watch... And...every minute you've got to duck...'Cause the second hand goes around (voice now sounding gravelly). It's long and it's red...And it'd hurt if it hurt you... (long pause) My body's shaking all over...It's like my shoulder is having a muscle spasm...An- I feel...I don't know, I feel...kind of...(long pause) I feel sort of... boned...by my own choosing...And I just saw R. (S's roommate) with a graduation cap on. He's so ugly. He's got glasses and a perm that looks terrible...I'm in third grade and C.H. (female name) just bit me...I just bit her back, over a game...And the teacher's taking us to the principal's office...Oh, and am I cool!...I'm really cool. C. is saying that I...that I bit her first and I'm saying No, that she bit me first. And Mrs. G (the principal), doesn't believe me and so I'm just laying it on and telling her I've got evidence! I have 10 witnesses. Yes, I can prove it!...She's confused...I'm in first grade ...or second...Mrs...or Miss...Miss...Miss C...Miss... I don't know her name (S sounding distressed). But there's first and second graders in the same class and they do different assignments and I don't know who I am. I think I'm a first grader...I'm in fourth grade, Mrs. C. She's a fat ugly witch. Nobody likes her. I'm sitting in the middle of the room and it's a spelling bee. And... I'm waiting outside, across the hall for a science class, no, it's reading...and Mrs. K. is the teacher. She's got red hair and she walks, she's really bowlegged and pigeon-toed at the same time and she's just ugh! Now it's reading class and we're doing a play and I don't know who I am (voice sounding gravelly)...I'm reading some part, I don't know, and it's a party. I don't know what grade ...it's, it's...it's second grade and it's her and it's grab bag party. You had to pull a name and buy a gift for somebody in the class...and I bought it for M.S. (male name). I just saw him the other day. This is getting mixed up. I'm here and I'm there at the same time...It's seventh grade...and...G. (male name)...(S begins to cry) G...G...got hit by a car...Him and L. (male name) were riding across on Twelve Mile, across Northwestern and

ClockET

got hit...by a priest...Nobody can believe it...and...
 We're sitting in study hall...and...The principal's
 coming on. He's telling us...And I knew him since we were
 in kindergarten...(long pause during which S can be
 heard sniffing) I keep thinking of K. (male name)...
 how bad he must feel (S begins to cry once again)...K.
 (female name) and I are going to the funeral...And I
 don't know, I think it's K...and I are going to the
 funeral...And I don't know, I think it's K...and I are
 going to the funeral home...But it doesn't look like him
 (S begins to wail and sob)...(long pause). It doesn't
 look like him (spoken through tears)...They rebuilt him
 so he'd look good...And we're going to the, to the
 cemetery...and they're not going to go to the grave. They're
 going to go to the mausoleum...No, it's before that. We're
 at church. It's my church (sobbing intensifies). And
 the priest who hit him's doing the service...And he's crying
 (barely intelligible through S's crying)...And they're
 taking him away...they're carrying him out the back door...
 And, and we're now going to the cemetery...And the
 mausoleum's really musty smelling. It's beautiful but it
 smells all...it smells like a place that, it smells musty...
 it smells cold and closed up...And...it's the last time...
 I'll ever see...And he's so nice...(long pause during
 which S can be heard breathing heavily) I'm at another
 funeral...It's the teacher's...He's the ecology teacher
 and...They don't know if it was an accident or if he
 killed himself...I really didn't know him that well
 (speech slurred)...(long pause) I'm in...a church...it's
 my grandma's funeral...And I'm standing next to my brother...
 (long pause during which S begins to sob) And I'm singing
 'Were You There?'...It's such a neat song (spoken through
 tears)...And it's the last time I'm ever going to see her
 again (S now sobbing and wailing)...(long pause) And, and
 we're leaving...and it's really sunny...and...Now we're
 at the cemetery. It's the same one G's at. And we're
 at the grave site and there's about 5 or 600 people
 there. It's just crammed...and...they're lowering her
 down...There's my mom and dad...and everybody's coming
 back to our house for lunch...About a 150 people came
 back to the house...And there's food, all kinds of food.
 And I had to do a show that night...I was doing 'Damn
 Yankees.' It was opening night. No, it was the second
 weekend...and I had to go right from there to my makeup
 appointment and it took about an hour to put my makeup
 on (voice sounding gravelly)...And then we did the show...
 It was a long day (S now sounding exhausted)...And...Go
 away! (banging noises emanating from the hallway can
 be heard in the background)...Uh...(long pause) Oh my
 leg hurts...Uh, move! (S rolls over in bed). It hurts
 (whimpered)...(long pause during which S can be heard .

<u>Clock</u>	<u>ET</u>	
		whimpering) Now it doesn't hurt anymore...Except I can't move it...(long pause) Speak English!...(long pause) Talk...D. (male name) and I are...swimming in my sister's pool...and...All this clicking (clicking sounds can be heard in the background)...And we're sitting there, in my sister's sauna...and...We're going to go to his house for dinner...Or we're going to go out. Somebody smashed the back end of his car (voice sounding gravelly) but let's go (speech slurred)...I'm in choir...singing _____ (mumbled) up to God...I'm running around looking at the mast...and the _____ (mumbled) feeling the air... I'm in B. and C.'s (male names) room. I'm going downstairs and I'm passing that girl. I pass her all the time... And I'm going to love, you have the door. And I walk into Wells...and I'm going in for class...and I'm coming out and it was a good movie...(long pause) I have chocolate chip cookies under my eyes...inside...Oh dear
		...I'm talking on the balcony...M. (male name) looks like he's jumping...All these clicking noises. They're bothering me (none can be heard in the background at this time)...(long pause) Stop!...Stop! (almost shouted... (long pause) I'm going mad...Look, chick, whatever you're doing, it's unimportant. So stop it!...Thank you... Well, that break was short lived...Rude person."
11:49pm	37	(End)
11:53pm	41	(a phone can be heard ringing in the background afterwhich S states the following) "Stop!"
12:35am	83	(S rolls over in bed, then states the following) "No car. I've got no car...anymore (speech slurred)."
1:54am	162	(S rolls over in bed, then whispers the following very rapidly) "Do you go through this morning _____ (unintelligible)?"
2:29am	197	(S rolls over lightly in bed, then states the following) "No...whatever (speech slurred)."
3:04am	232	(S clears throat, then states the following) "Right (stated matter of factly)."
3:06am	234	(S rolls over in bed lightly, then states the following) "Uh, Lord (followed by a short chuckle)."
4:36am	312	"I'm...fascinated in the amount of work involved. (Several seconds later S rolls over in bed, then states the following) I'm awake now...I don't know if I said that or not."

Clock ET

5:05am 341 (The sound of a train passing in the night can be heard loudly in the background as S whispers the following)
"Oh...outside."

5:32am 368 "The horses are all formed...The Earth's shaking, or my body's shaking (speech slurred)."

5:43am 379 (S rolls over lightly in bed, then whispers the following)
"Mm, stop. _____ (Unintelligible). Mm hmm (barely audible)."

Night: 12
Treatment: D¹
Alarm Set For: 7:00am
Lights Out: 11:32pm

Clock ET

1:26am 114 (S rolls over in bed, then states the following) "God, why am I talking so fast? (spoken very rapidly)"

1:31am 119 (S rolls over lightly in bed, then states the following)
"B. (El's name spoken in a croaking voice)...T. (male name), present."

1:46am 134 (S rolls over lightly in bed, then states the following)
"I'm trying to _____ (unintelligible). I'm dreaming about..."

1:54am 142 "What's going on? (whispered)"

2:29am 177 "Unh huh...Stand up young man."

3:50am 258 "Mm hmm, that's right. (speech slurred)"

4:07am 275 "Stewed fished half. Ya, I'm right. (speech somewhat slurred)"

S U B J E C T 3

Subject: 3
 Night: 1
 Treatment: A
 Alarm Set For: 6:30am
 Lights Out: 12:04am

Clock ET

12:04+am 1 (S whistles into the microphone, then states the following)
 "What do you make of this Bear (referring to her teddy bear, which she brought to the sleep lab)? (S then laughs) How about some Milk Duds for you? No, I'm not worried. I don't usually speak to my bear. Only when I know people are listening. (S laughs once again) I'm thirsty... Hmmm...Once upon a midnight dreary, while I pondered weak and weary...while I nodded nearly napping, suddenly there came a tapping, as if someone gently rapping, rapping at my chamber door. Just some visitor, I muttered, tapping at my chamber door. Only this and nothing more... Hello! (S is responding to E2's knock on the door. E2 asks S if she wants some water, in response to S's statement regarding her thirst. S laughs uproariously, then states that she would like some water. During the period that E2 is getting S a pitcher of water, S states the following) This is great!...(long pause) I always get thirsty when I'm nervous...So does my bear...I wonder how many people spend 12 nights in Olin Health Center without even being sick...I love this art work (referring to the posters and pictures that had been hung on the lab walls)...I should have brought my Warren Beatty poster. And my Clark Gable and my Paul Newman...There's this one star up there that keeps looking at me...You know that little latch on the window? Its silhouette looks like the bust of Nefertiti. (E2 returns at this point with S's water. After E2 leaves S's room, S states the following) I'm not really tired now, I'm going to read (S laughs loudly). Well, Bear, what do you think of this thing" He's kind of the strong silent type (S laughs)...No, I'm not really one of those wacky people who talks to plants and animals and things...I'm just not tired right now...I wouldn't be talking right now if I didn't know that I've got a captive audience (announced in a triumphant voice with emphasis placed on the words 'captive audience'). (S laughs loudly) Ah, what do you know? I'm an actress...basically...(S laughs)...Oh, I forgot to bring my red book...That's something in which I write important things...The poem that I was saying before, that was 'The Raven' by Edgar Allen Poe. I know the whole thing but I wouldn't want to...give it all to you right now...It's kind of a long poem...(long pause) This is going to be a long tape mostly filled up with nothing...I'll bet if these posters fell off the wall I'd say something. That's what usually happens. My

ClockET

roommate says that when the poster falls off the wall I usually mumble very fast and incoherently...12:15 and I'm wide awake...(S laughs)...Dr. Frankenstein, I presume (spoken in an exaggerated Eastern European accent)...If somebody had told me last year that I would be spending 12 nights with two shrinks, hooked up to electrodes in the Olin Death Center...I would have said, 'No way, Jose'... Never (S laughs)...(long pause) I thought you said that one poster was supposed to be a reproduction of...Van Gough? Or Da Vinci?...It's one of the impressionist's paintings...Da Vinci wasn't an impressionist painter!... Hmmm, anthropology...He made anatomical drawings that helped in later comparative anatomy...I wonder if I'll get that right around midterm...(S laughs)...You see, my bear knows everything. I was just the dummy...Do you believe people would be jogging at 12:15 at night? Not me...Oh, my friend had to spend a night here once. She got so drunk and went ice skating and fell and hit her head really hard (S laughs). You're thinking. 'We've got a crazy one on our hands here.' You know, I'm going to say a lot of foolish things because I've got no feedback...(long pause) Hmmm...Ah, there's the moon...O-o-o-oh..._____ (mumbled) was a dog in his own day and waited twelve years in the city of _____ (mumbled) for a ship that was to return him to the isle of his birth and on the twelfth, in the twelfty year, on the seventh day of _____ (mumbled) in the month of _____ (mumbled)... he climbed the hill above the city walls and looked seaward and beheld a ship coming through the mist...and the gates of his heart flung open and his heart flew far over the sea. He closed his eyes. He prayed in the silences of his own soul...the beginning of the 'Prophet' by Halil Gibran...(S pours water into her mouth, leans into the microphone, and can be heard making loud gurgling sounds. S then laughs uproariously.) That's my water. You know George Carlin has this one routine where he shares a swallow with us (S laughs). It's a very personal thing. No one ever shares a swallow with you. You want to hear a swallow? (S then takes a drink of water, leans into the microphone, swallows, then laughs uproariously) This is fun (S laughs). No one ever lets me be crazy...At this point my roommate would be saying, 'D. (S's name) Shut up and go to sleep! ...She's not very tolerant (voice sounding gravelly)...Michigan State University. Here I am sitting up in bed looking out the window. It's any normal scene except I have electrodes attached to my head (S laughs)...She's never been the same since that last experiment (spoken in an exaggerated Eastern European accent)...(long pause during which S begins to hum a tune) Oh my head is hurting tonight. After I got out of that big interview with the All University Judiciary. Whew! My head's spinning... (long pause) There's the Honor's College and the Hort.

ClockET

Building and to the right of us is Morrill Hall...That must be, no, ya, beyond a shadow of a doubt, the ugliest building on campus--Morrill Hall. It has terminal ugliness...(long pause) I can't wrinkle my forehead... Kinda reminds me of when I was a little girl. I used to have short hair and my mother would still put me in pony tails. She pulled my hair so tight that I couldn't even move my head. You get little rashes on your neck because your hair is so tight...I was noticing as I was talking in my hypnosis how one thing would relate to another...The orange peel in the hand. Then the hand moves into a witches hand...She went flying. Then the funnel turns into the brim of a baseball cap...I guess that's the way normal thinking goes...You have logical relationships...Who'd be in Hort. Building at 12:30 at night?...(long pause) Oh my head. I usually don't get headaches. O-o-oh. Hi there Bear...(S laughs)...I don't believe it (S now giggling uncontrollably). What a day...Why am I in a good mood? I should be in a rotten mood...That really does look like Nefertiti...Whew! I see...all kinds of strange things in things. They think I am so weird down at the lab because I feel so bad about killing the rice plant...Gosh, I killed them and I have to throw them away and I washed the dishes and they're sitting there in the garbage can and they're just screaming at me. 'What did you do to me? What did you do?' (spoken in a shrill, high pitched voice) Oh, it's bad...I mean it's a slow, agonizing death...(long pause) You know where I got this nightgown? And another pair of babydoll pajamas just for this experiment (S laughs). Because what I had didn't even resemble anything like pajamas...(long pause, during which S begins to laugh) I often giggle for no reason. I think my mother thinks I am crazy. I can be sitting all by myself with nobody else around and just giggle because I think of something that's funny that happened several years ago. But nobody understands that. They say, 'What are you giggling about?' and I say, 'Well nothing because it would be ridiculous to describe something that happened years ago'...So they think I'm crazy...That book is by Tennyson. Oh that's great. I want to read those...Lord Alfred Tennyson, 1889, 'The Battle of East and West.' I know the first verse. Want to hear it? (S laughs) Sure you do! (S laughs) 'Oh East is East and West is West and never the twain shall meet. 'Til earth and sky meet presently in God's great judgment seat. But there's neither East nor West, border nor breed, nor birth when two strong men stand face to face, though they come from the ends of the earth.' That poem was the preface to 'The Cowboy and the Cossack' by Lee Huffaker...Great book. Read it when I was in eighth grade...(long pause). My boyfriend hates me because I've got such a good

ClockET

memory...(long pause) Hmmm...I want to sleep but I'm just not tired...I didn't want to focus on that dumb little spot on that round disc on that light (spoken with contempt. S is referring to the target used for the hypnotic induction.) Hurt my eyes...(long pause) It's funny when...I'm looking at that one little spot. The room, it's not so much that what I'm looking at gets distorted, but the rooms dimensions change. The colors change. They move back and forth, then it all gets fuzzy except that I can still see the one spot...The first time we were doing the experiment, when I was looking at my thumb (S's is referring to the group hypnosis screening).... It was weird. I got these negative impressions, like there's a photographic negative of everything...It was really strange and there was a lot of white...(long pause) I got to take the stupid necklace off (S bangs her head loudly against the microphone, laughs, then states 'Oh, sorry') Sorry about that...(long pause) All these wires...Sleep D. sleep...Mmmm...Hey, what are you guys doing in there? (S laughs) Bear and I are having a party. He wanted to know if it was OK if he brought in a few friends...See, I told you they wouldn't let you...My friend and I went down to look at the ducks at night. And we couldn't see any around. Of course, it's simple. Thursday is half price night for ducks at Dooley's. All the ducks went down to Dooley's to jazz it up... Did you know that ducks can swim under water? I didn't believe it. I didn't think they could go under water (spoken with exaggerated incredulity)...You know I found two duck eggs. My roommate thinks I am as bad as a little boy. I bring everything home. Everything I find, I bring home. (S laughs) I found two duck eggs...one of them died, it was cracked. I was so upset...J. J. (S's roommate) keeps turning off the light for my incubator... Drat!...I remember when we were little. My brother and I were in this one room. And there was a spider on the ceiling. This must of been before I was afraid of spiders...(S laughs) We had my mom really going. She was, she's not naive, but she really believed that we didn't want her to kill the spider because we wanted to train it (S laughs uproariously) I'm sure, what can you train a spider?...But she said she wouldn't kill it because we were training it (S laughs)...We were always testing the elasticity of her leg...(long pause) I do not like spiders, though...in fact, a lot of my memories have spiders in them. And lately a lot of my dreams have had spiders in them too. But I'm not afraid of them in my dreams...But spiders really freak me out. I mean, I don't get bothered by anything. Iguanas, lizards...pythons... I say worms, but when I was a little girl I used to take worms out of the puddles and put them on the dry sidewalk. Those stupid worms, they just crawling back into the puddles.

ClockET

It was hopeless. I was so upset. They kept drowning themselves in the puddles. I had a cousin who used to eat worms. Yecch!...(S laughs)...(long pause) I have Nefertiti looking out the window and Van Gogh to the left of me...(long pause) Maybe tomorrow I'll tell you the one about the sweet young girl who was a tender young thing...It's a little story I know...Or maybe my bear and I will do a little routine. We know one called 'Boy Meets Girl.' Except sometimes he misses his lines... What are these things in my hair? These bobby-pins? I must look lovely (spoken with mock self-concern)... What a beauty, my arms are all tangled up in these dumb wires...I'm tired but I can't go to sleep...(S laughs)... I remember when I was little...I had a really funny dream ...I still remember it. I could describe it but I'll spare you...But when my dad came in the room he was concerned. I guess I was laughing in my sleep. I was laughing so hard, it was so funny (S laughs). He thought I was crying...And once at Girl Scout camp they said that I was screaming in my sleep. Screaming at the top of my lungs (S's voice becoming melodramatic). I couldn't imagine. I didn't even wake up...And then in the Fall I woke up crying. Oh, I cried for so long. It was such a bad dream. But it wasn't the dream that I was crying about...I was crying because I knew what it meant...And I heard the puppy. And it me too...(long pause, during which the sound of a flushing toilet can be heard in the background) Who can be going to the bathroom at 12:30 at night? (S laughs)...(long pause, during which S inhales deeply, exhales slowly, then states the following) Slow leak...(long pause, during which S laughs) Rocky Raccoon is taking care of everything up there (S is referring to stuffed toy racoon which she ritualistically attached to the microphone each night of the experiment)... And J. (S's roommate) is sleeping all alone tonight (S laughs) Too bad (spoken in a mocking voice)...She probably loves it...(long pause, during which the sound of a ringing telephone can be heard in the background) What is that ringing?...That went off twice while I was under hypnosis ...B. (E1) swallowed twice during that five minute period when I was going under deeper (S is referring to a depth enhancement procedure administered during the hypnotic induction)...(S laughs) Either he's a noisy swallower or I'm a good listener...In fact, I could hear you that night of the, the first experiment (group hypnosis)...I could hear you drinking your water...(long pause, during which S yawns and laughs) My stomach is talking to me (spoken in a munchkin-like voice)...(long pause, during which S laughs) O-o-oh, M-a-a-n...Uh, these wires!...(long pause, during which S laughs and rolls over in bed) I can't fall asleep until I turn over on my stomach...Dumb wires!...(long pause) O-o-oh, M-a-a-n. It's twenty to one...It's going to be a short night...(long pause, during which S

Clock ET

yawns) I see a toothbrush where the brush is all fuzzy... the ends are like wheat...(long pause, during which S laughs) Hey, be quiet down there.. That's my stomach... Next time I'm going to leave my stomach home...(long pause) The music 'Tubular Bells' by Mike Oldfield is going through my head...That's the song part from the 'Exorcist'...(long pause) Ugh! These stupid wires! (whispered)... (long pause, during which S yawns) I really _____ (mumbled) when I sleep...(long pause) I see these hands on a baby's head...bald head...shaking it down...with their Chinese...A _____ (mumbled) dog with their ears sticking up...real long hair...I hear something outside that looks, sounds like a skateboard...No way (whispered)...Old leopard on the side of a barn. It's just a painting... (long pause) Somebody just pushed a guy's face down into a pile of oyster crackers...What a punishment...There's this guy looking down a mining shaft and a uvula hanging over head head...of course, that's ridiculous...(long pause) Milk gushing ou- of a balloon with a hole in it. Maybe it was a canteen (S's voice has softened considerably since she began describing visual imagery)...And it's a snail... It's a round ball...spinning on an axis...Spinning 'round a fish...Plastic fish...Spinning on a vertical axis... (long pause) I heard somebody cough (no such sound, or any other sound for that matter, can be discerned in the background)... (long pause) _____ (mumbled) pushing the stroller down the sidewalk (whispered)...A teepee with a big silhouette on it of Cancer the Crab in the sky."

12:48am 44 (End)

3:57am 233 (S whispers on and off for eleven minutes. Speech is so soft as to be completely unintelligible.)

4:08am 244 (End)

Night: 2
Treatment: A
Alarm Set For: 7:00am
Lights Out: 12:04am

Clock ET

12:04+am <1 "I'm sorry I talked so much last night...I guess I just took advantage of the situation."

3:32am 208 (Spoken in a whisper as S returns to bed after having spent the previous several minutes sitting up, awake, writing) "You guys must be pretty tired, huh?... (long pause) In my dream I had a line. Somebody said, 'Leave my loneliness unbroken.' It's a part of mine from 'The Raven' that I'm memorizing...In my dream I finish the line in my head, 'Leave my loneliness unbroken...a _____ (mumbled)'

ClockET

...No wait. Not quite. Leave my loneliness unbroken... Put the bust above my door...Take that beak from out of my heart...Take that _____ (mumbled) from off my door. Quoth The Raven, 'Nevermore.'...(long pause, during which S rolls over in bed) Ouch!...(long pause, during which S laughs) I'm pretty consistent, aren't I? It's 3:30... Good grief!...(long pause, during which S moves about in bed) My skin hurts. Ouch!...(long pause, during which S yawns) ONce again, I feel pretty wide awake. I never wake up in the middle of the night...(long pause) The song from Superman keeps going through my head...(long pause) I know I wasn't going to talk anymore but this one verse from a poem by Poe keeps going through my head. It happens to be on the Alan Parsons Project too... It was a record of Poe's works put to music...'And now my days are trances. And now my nightly dreams are worth thy dark-eyed glances. And _____ (mumbled). What ethereal trances (S now attempting to affect a cultivated sounding voice). By what eternal schemes'...You know that Poe's favorite word was phantasmagorical? He uses it five times in one short story. It's called 'The House of Usher'...(long pause, during which S chuckles) I'm just talking cause I can't go to sleep right away... (long pause) I wonder if this 3:30 business is going to be consistent?... (long pause) You want to hear a poem? ...By Poe, of course...It seems appropriate. It's called 'A Dream Within A Dream'...'Take this kiss upon the brow and imparting from me now the _____ (mumbled). You are not wrong who deem, my days have been a dream. Yet, if hope has blown away at night or in the day. _____ (mumbled) All that we see or seem is in a dream. I stand amid the roar with a surf _____ (mumbled) shore. And I hold within my hands grains of the golden sand. How few yet how they creep through my fingers to the deep, while I weep, while I weep. Oh God, can't I grasp it with an entire clasp? Oh God, can I not save one from the perilous wave? As all that we see or seem I dream within a dream.'...Some people seem to reject their sleeping and their dreaming as something almost foreign from them (spoken in a solemn tone)...As if their dreams don't really come from them but from somewhere else. But then, to reject half, a third or a fourth of their life... as if it had no meaning...Say that it's not real...is to lose a whole fraction...I'm just as real, I'm just as alive when I'm sleeping (voice becoming louder)...the sounds and images are all coming from me, from my head. It's the only reality I know anyway...There's nothing that's real outside of my soul. It's an objective viewpoint...So my dreams have to be just as real as what I go through in the daytime. That's why I write them down, 'cause I don't want to lose any of it (voice becoming gravelly). I'm very jealous. I want to grab everything

Clock ET

and keep it for myself...I want to be just as aware of what's going on when I'm sleeping as I when I'm awake... (long pause) Anytime I have a headache at all...I almost never have a headache longer than 10 or 20 seconds...but then I broke my record sometime last year when I had a headache for a couple minutes. 'Cause I really never have headaches. As a matter of fact I'm very rarely sick. I can think I won't get sick and I don't get any illness even though I sleep in the same room...My boyfriend got Mono once and I never even got it. He was out for a month. I never stopped seeing him but I just never got it...(long pause, during which S coughs loudly) I do have a little bit poor circulation in my hands...I used to wake up very hot and my hands would be numb...probably because I sleep with my hands under my pillow 'cause of the circulation. But other times I think that if I hadn't even been sleeping on them and had kept them by my side that I'd wake up and they'd still be numb. I feel a little bit strange right now...(long pause, during which S yawns) Ouch!...(long pause during which S rolls over in bed, occasionally banging her head into the microphone) _____ (unintelligible whispering lasting no more than two seconds.)"

3:58am 234

(End)

Night: 4

Treatment: E

Alarm Set For: 7:30am

Lights Out: 12:59am

Clock ET

12:59+ <1

(S groans loudly for several seconds, then states the following) "I see an egg (spoken in a croaking voice) ...an eggshell...I'm eating a hot dog...As soon as you turned out the light I immediately saw the meat (speech slurred) and _____ (mumbled) There's a buggy (almost unintelligible). I must wait! S-l-i-d-e projector... Some things you master (speech very slow). Cassette _____ (mumbled) and a book with many pictures...it's far away. It's open a little bit and it closed...I'm ordering things like stars...Mmmmmmm...A rabbit. Jack-rabbit. I see it from the top the way I saw it when I was hypnotized before...And three-ee-ee popsicle sticks on a little black rabbit face and he has white, he has a black head and a white face and a white slit down the middle of his head and a horn coming out of it...Oh it's a goat! It's a goat (whispered)...O-o-oh, there's one of those worms (voice sounding very gravelly)...comin' near the goat. Go ahead...oh...o-o-oh, that's bad voice laden with anxiety). Oh, kill it, kill it!

ClockET

Ooh, pull the worm out. Ooh, get the worm out. Ooh... that worm kills...(long pause, during which S begins to cry) Get the worm out (spoken through her tears)... (long pause, during which S can be heard sobbing) The worm (voice heavily constricted) hurts the goat like it hurt the kitten...I tried to get it (S sobbing uncontrollably) ...Get it out!...And the kitten died...And the kitten was... there was a parasite living inside it...(long pause, during which S sobs uncontrollably) A little warm and fuzzy and...fuzzy...(long pause) an arrow (voice now considerably calmer)...shooting up...goes through where?...A hole in the rock...(long pause, during which S sighs heavily)... I'm still looking through the hole (speech slurred) And the rock looks inside a cave...And I see a circle with two lines through it...kinda like a Jews harp...(long pause) A pen. I _____ (mumbled) a pen. A _____ (mumbled) push pen...(long pause) Scissors...A bird... along with the scissors belong to...purple and yellow... Can't see the head (speech slurred). I can see it underneath it the beak. Yellow beak, purple tip. Right near the purple...(long pause) Wishbone...But the worm...Unh unh...And the wishbone fused with the worm and becomes a mitochondria...No, that doesn't look like mitochondria ...A shell...a fan shell...And, so the blue _____ (mumbled) is bigger..._____ (mumbled) flaps _____ (mumbled) turns into a butterfly...cornhusk dolls, big skirts and little black shoes, green _____ (mumbled)... long thin arms...akimbo...a lion, a white lion...is sterilized. Pupils looking back into their head...big white teeth...fangs...like wishbones...like the wishbones in the _____ (mumbled)...a jaw...and like two kinds of tooth came up and jumped to the other base of the wishbone...Then it becomes one other piece of chalk...Then I see a molar...It's dark in the center (voice sounding gravelly)...Like it's rotted out...A...Clownhead...Just the white eyebrows and the white plastic...With the red hair on either side and a tuft of red hair sticking straight up...Curls. Big floppy head...A boy with a baseball cap on his head...Sucker...It's really twisting around and twirling around...A bow tie...white bow tie becomes a ribbon, black ribbon...black ribbon being put on Christmas present. Black...Yellow ribbon...After one sitting...Hands...Sitting on hands...Big candle... (long pause) Barrel of a gun...Looking down it like a piece of macaroni...or like a bow pulled with a bead on it...Sticking up with a straight pin...I want to tell you it's a shame (whispered). It's a downright disgrace. Songs too...Songs going in my head...Hook. White hook... ooooh I saw a barbed wire on a...a barbed hook...anchor... horse head anchor. No it isn't, it's a beater for a blender. It's a beater for a blender...Mmmm...A mother tickling a little baby...(S yawns) A clam...reddish on the inside...Not a clam...a compact with make-up for lipgloss

ClockET

...reddish and gooey...You take it with your finger and you put it on your lips (spoken in measured tones)...I put too much on...You moved your finger away and there wasn't any lipgloss where you put your finger...It rips off a little part of the lip and it's just white kind of ...Just a little white spot (voice sounding gravelly)... The white spot moves...And it changes...And is a washer then a donut...And a _____ (mumbled) form bath. I see the thing upside down. Everything walks around, wish it didn't..._____ (mumbled)...Riding around in a circle. In a vertical circle...Up the wall, across the ceiling, down the wall to the floor, around and around...White helmet..._____ (mumbled) on its head...Big blue eyes... Short brown bangs. She can't get out of the helmet... That duck bill. The curved side of a duck bill profile. Donald Duck...Tail of a beaver...flat, curved...breast of a monkey...Hmm, fingernail...with black fur behind it ...with hair on top of a head...hair on a girl's head... Like a black curl pulled back in a poney...(long pause) One of those hand scrub washers:...Wash a washboard... Hands _____ (mumbled) behind a white thing...Someone picks up something. It looks like _____ (mumbled)... Strange shaped white thing like the support of a dentist's table. There's tall stands and I see the bottom of a stool with a...with a stool coming out the middle of it. Except it's just like a bar that has... What do you call it?...(long pause) Person is standing a way far away. A very personal person... Out on the street with a street light above...But the dark follows him...A weird lady...fat with gross hair...dark glasses. Face pushes in and recedes and now it's a vulture and it has...I just see the head. It moves so fast that I can't describe it all before it changes...You know...They're still changing. I'm talking and I can't keep up. I have to talk so fast. The faster I talk, the faster it changes... (S yawns) A watchband. A watch. Metallic... expandable...Hands...Teeth...The top view of teeth... Ooh, little black things in them moving. They're bugs... like some bugs crawling away from _____ (mumbled). Poor guy _____ (mumbled) black and white spots. White spots and black spots. Oh, and a light brown leaf... White spheres floating...through space (melodramatic voice). They're growing black...Things connected to them. Brooms (Several people whistling loudly outside the lab can be heard in the background) Brooms on long black threads or on long wire...A snake. A snake with black and white...Like it's a _____ (mumbled)...It has a black band...And like, a, it disappeared into a hole. And I don't want to think about the kitten coming full circle. I won't think about the kitten...A strawberry pot. Good strawberry plants in it. Grows out the sides

<u>Clock</u>	<u>ET</u>	
		and _____ (mumbled) Moss growing in _____ (mumbled) spots. A taller plant growing out of wild _____ (mumbled). Like a _____ (mumbled). Like with a lid (voice sounding gravelly). Black dirt. Plant turns into a hand. I can't talk this long to keep with it...My hair's wet...Tail. Dragon tail (whispered) and...Like an arrow. It's green and yellow. (S yawns)...(S continues to whisper unintelligibly/inaudibly for five minutes).
1:23am	24	(End)
2:04am	65	(Whispered so rapidly that only a few words can be made out) "I took drink _____ (mumbled). I should have took...my _____ (mumbled)...I don't know... _____ (mumbled)...I'm going to have to catch _____ (mumbled)." (Total elapsed time for this verbalization: 30 seconds.)
3:50am	171	(S whispers several unintelligible words, rolls over in bed, and whispers several more unintelligible words.)
4:00am	181	(S awakens and whispers inaudibly/unintelligibly for 10 minutes)
4:10am	191	(End)
4:12am	193	(S resumes unintelligible whispering and continues for 63 minutes.)
5:15am	256	(End)

Night: 6
Treatment: E
Alarm Set For: 7:30am
Lights Out: 2:36am

<u>Clock</u>	<u>ET</u>	
2:36+am	<1	(S sighs deeply several times, then states the following) "I see a...multi-colored ball. A beachball (whispering) ...Harlequin, everlasting _____ (mumbled) (S laughs)... and the football, _____ (mumbled) standing on it's side...(S yawns) A tennis racquet with a _____ (mumbled) tennis balls...And a tennis _____ (mumbled)...Now it's turning into keys" (S's voice barely audible)...(S continues to whisper unintelligibly for 6 more minutes.)
2:43am	7	(End)
3:06am	30	(S rolls over lightly in bed, scratches herself several times, yawns, then rapidly whispers several unintelligible words.)
3:10am	34	"A stand of white birds (whispered)...a _____ (unintelligible)...Dirty leg... _____ (unintelligible)...Now...

<u>Clock</u>	<u>ET</u>	
		I got...I failed...So I'll _____ (mumbled) (S rolls over in bed) And..." (S continues to whisper unintelligibly for 45 seconds.)
3:12am	36	(End)
3:46am	70	(S whispers so softly for 13 seconds that the entire verbalization is unintelligible.)
5:01	145	(S inhales deeply, rolls over lightly in bed, then whispers the following) "C. (female name)."
5:45am	189	(S can be heard scratching herself in the background, then whispers the following) "I just went into my chest."
7:23am	282	(S whispers so softly for 2.5 minutes that the entire verbalization is unintelligible.)

Night: 7
 Treatment: E
 Alarm Set For: 7:30am
 Lights Out: 12:18am

<u>Clock</u>	<u>ET</u>	
12:25am	7	(S whispers so softly for 3.5 minutes that the entire verbalization is unintelligible.)
12:29am	11	(End)
12:30am	12	(Whispered) "Black man playing on a basketball court... I don't know who he is... _____ (mumbled) On his chair...Sitting on a lawn, on a lawn chair...(long pause) _____ (unintelligible)...(long pause) (S continues to whisper so softly for 6.5 minutes that the entire verbalization except for the words 'No shorts and sandals,' is unintelligible.)
12:38am	20	(End)
12:39am	21	"K. (female name whispered)."
3:39am	201	(S whispers a few unintelligible words.)
3:48am	210	(S whispers a few unintelligible words.)

Night: 8
 Treatment: E
 Alarm Set For: 6:30am
 Lights Out: 12:07am

Clock ET

4:16am 263 (S whispers intermittently and so softly for 23 minutes that the entire verbalization is unintelligible.)
 4:39am 286 (End)
 4:58am 305 (S rolls over in bed and whispers the following) "I saw a little girl...sitting on a _____ (unintelligible) shell...stashed in _____ (unintelligible)."
 4:59am 306 (End)
 5:11am 319 (S whispers a few words so softly that the entire verbalization is unintelligible, then rolls over in bed.)
 5:34am 332 (S rolls over in bed, hiccups, then seems to whisper a few unintelligible words.)

Night: 9
 Treatment: E
 Alarm Set For: 7:00am
 Lights Out: 12:31am

Clock ET

12:32 1 (Whispered) "I see many _____ (unintelligible) colors and _____ (unintelligible) my vision's dream and the black...is like ink. It comes from the outside and it comes up and it becomes a mountain stream and seeps down and covers it up. This is something that I see sometimes, not always. So fast...Starts, and then covers it up and there's always more color in the middle to cover it up with the black...(long pause) A round black _____ (unintelligible). Can't be anything... Could be a cave opening. A black Chinese hat...(long pause) I see an earring on an ear...(S sighs) A circular thing...I think it's a cone...(S rolls over in bed) Chicklets...White Chicklets. Piece of gum. A piece of tile...A small little piece of tile...Front parts to a _____ (unintelligible) are white. One's dark brown, one's speckled...(long pause) I hear a boat but I don't see a boat...I see two horns and the horns curl and curve up. And I see the sickle of a horn... _____ (unintelligible) A white horse...The mane is a fire, a fire,...Wild fire...The song "Wild Fire."

ClockET

_____ (Unintelligible) wild fire..Pegasus and a unicorn.
 _____ (unintelligible) rider _____ (unintelligible) its
 teeth. It won't be captured by anything or anyone. This
 race with _____ (unintelligible) white wings. And only
 those who are as _____ (unintelligible) as Pegasus can
 ride...White on white...A girl with a flowing dress
 that moves around in the wind rides Pegasus. She has bare
 feet and they're pointed..._____ (unintelligible) Dancer
 _____ (unintelligible) Rider ballerina rides Pegasus...
 (long pause during which S sighs deeply) A foot...A
 ballerina's foot. She's spinning around on her toes...
 White satin shoes...(long pause during which S rolls
 over in bed and sighs deeply) Black shoes...A regular...
 patent leather shoe with a square toe...Patent leather
 _____ (unintelligible)..._____ (unintelligible) Can't
 be a boot but it is...White socks. Little gray and
 white socks (voice barely audible). _____ (unintelligible)
 Lace and bobby socks...(S continues to whisper unintel-
 ligibly for 1 minute) And it floats out and out, getting
 bigger and bigger. There aren't even any eyes. Just a
 cape. All black. Coming closer. Getting bigger...
 Covering...Just like everything else (S's voice barely
 audible)...But I'm not afraid...I guess I'm not afraid
 _____ (unintelligible)...(S yawns) Kitten! I can see
 the kitten. But I just see the back legs walking away
 (S's whisper much louder now) and the tail's sticking
 straight up in the air waving back and forth. Black
 and white tip of the tail and white paws...Little kitten
 feet...He's gently _____ (unintelligible) feet...and the
 claw's spread out. So soft...Little kitten feet...Kitten
 paw...Kitten paw's now a plant, a green plant that's
 fuzzy. I see a sun up. I go walking out in the back...
 Kitten paws...Out way back...(long pause) Kitten paws...
 Frogs. They look fake! Like plastic. They have big
 eyes and their mouths are open and they are they're
 looking back. Their jaws stay stationary but the top
 of their head, of their mouth moved back. A safety pin.
 A silver safety pin...Something, the safety pin, the safety
 pins remind me of babies. I see a baby in a diaper. The
 baby's laying on one side of the diaper. The mom's
 _____ (unintelligible). I see an umbilical cord that
 wraps around the top of the diaper...wraps around and
 ties...turns into a jump rope. I see a nipple...(long
 pause during which S rolls over heavily continuously,
 without interruption for 1 minute) Salt in a salt shaker
 jumping around...It stops jumping around because...It says
 'We were...colder...real cold. Because we're cold we
 sto-ped jumping.' These salt particles are talking to
 one another. Now they stopped jumping around. They are
 cold. Two more, only two left jumping...Now only one,

ClockET

one finally stops. All the salts are still except one. It's persisting, it's determined it'll jump around. It's got a beard and a cowboy hat. A white beard. It's an old man but it looks like a _____ (unintelligible) With a black beard and a brown, rounder hat with a black _____ (unintelligible) on it...Hillbilly with a flat, flattened out brim. Black beard and moustache. Oh, it looks like a character from a book I read when I was a little girl. A book...I see...I can't believe _____ (unintelligible)...Pokey lie down _____ (unintelligible). Looks like a monkey...Somebody's toying with their little...My cousin's teddy bear turns into a lamb...A real lamb...And a black nose, white face...Brownish... Oh, it's dirty. The wool looks dirty and oily...but it's natural. And there's the musty smell of sheep. _____ (unintelligible) Put your hands in the wool and squeeze it and it's very soft...Iron-on riding _____ (unintelligible)...But the point of _____ (unintelligible) but it doesn't quite fit. So you line it up so it's at least symmetrical...And then a pipe. It's a little black thing _____ (mumbled)...It's, I don't know, it's _____ (unintelligible)...The white plucker moves back and forth...It's thin brass...Golden like we used to have... (long pause, during which S yawns and rolls over in bed) Truck (a truck can be heard in the background passing outside the lab just prior to this statement). Big truck coming toward me. Runs right over the place where I was lying down. But I am underneath a piece of glass and it runs right over me. But I'm not hurt...I see... _____ (unintelligible) Glass breaking. Big large pieces of glass falling down. Oh no, it hit me in the stomach. Ooh... Large piece stabbed me right in the stomach. Big piece, triangle of glass in my stomach. Big, three feet big. Like a big...icicle. I can't get up, I can't move. Pinning me down. Where does it hurt...Big bear claw. I see...It's curling and gets up and then rips out a piece of glass...And this bear claw was my hand...So it's my hand that pulls the piece of glass out and throws it away and it travels on out into space...And I have a wool next to it...(long pause) Bear claw gets up... _____ (unintelligible)...Hear it drop on... _____ (unintelligible). Could be tough. _____ (unintelligible) ...(voice now barely audible) _____ (unintelligible). I missed it. I see the eyes...Very dark...eyes. They look wild, crazy! There's no person in those eyes. It's an animal, scary animal...His eyes...I see the _____ (unintelligible) eyes of a wolf...Of a storybook wolf anyway. I see a wolf turning the pages of a storybook beneath his lips...I see the seal...(S rolls over in bed lightly and sighs deeply). A seal with blindfolds on (S chuckles) listening to A.M. rock (S chuckles)...(S yawns) Eyes of

ClockET

a garage...Garages have eyes...Things floating at me... They turn away but go down a long tunnel. Train's coming near me. It's passed me. I'm standing on the side of this train thundering past me...These are all _____ (unintelligible) out of my past. But it's vibrating, this image is vibrating...It's roaring past...I see...Down on one side, Kind of the way I see it, a shark swam over it and curved up through the _____ (unintelligible). The body of the shark and the _____ (unintelligible) on the bottom...I hear the music 'Jaws'...I also hear music by the Doobie Brothers, 'Bit by Bit.' 'Bit...by...Bit'... 'Bit...by...Bit'...A bubble...Like a silver bubble rising above the sink...And pops! I see a pin. A glass bubble and...Something inside the glass bubble like two lollipops rolling around...the center...inside this big...They're rolling around and around and around...around. They stick out like ears on a Mickey Mouse...I see a heart. A real heart with valves...aortas...superior, anterior...There's two different colors. Blue...Red, pale pink...I see someone squeezing a bulb. There's a tube that leads out someplace...(long pause) A bulb...Squeezes like a pump...(long pause) Uh oh! I see a worm again. A worm that's _____ (unintelligible) (S sighs)...No. Oh...(S's breathing becoming heavier) I see the worm again. Oh... Getting tense...No, no, no, no. Worm on _____ (unintelligible) So vile! He's so cruel, doesn't care...So disgusting, disgusting...unrelenting...(S's breathing becoming more rapid)...(long pause during which S rolls over in bed and sighs deeply) Oh don't, no. Pull it out, pull it out, pull it out. Take a pin and stick it through it. Pull it out, out, out! Pull it out! Pull it out! Out, out, out! Pull it out! Out, out! Oh these tweezers, pull it out! Get it, get it, get it, get it! Stick it with another pin and try to pull it out! It's so tight. O-o-oh! Pull it out! Out! Ooh (long pause during which S can be heard panting very heavily, apparently locked in the struggle to pull the worm out) Pull it, pull it out! Pull it out! Out, out, out! Get it out, out! Get it out! Get it out!...(S inhales sharply, then states the following) Oooh...I can't get it! Oh get that worm out of the kitten, out!...(S resumes heavy panting) Pull it! Pull it!...(S continues to pant heavily) O-o-oh, I lost it! It went back in. And it went back further and there's just this o-o-oh...And there's this worm and I can't get it and it oozes this awful gray st... and I can see it. This opening with the gray worm in it, pulls this out. I can see the worm breathing in the skin of the kitten. I can't do anything. This perfectly round, this perfectly round, this worm pull...Pull it out. It's gray and it's awful and I can't get it! I think I can... o-u-t! Get it out! Squeeze it, squeeze it, do anything to get it out! Out, out! (S can be heard now thrashing

ClockET

about in bed, apparently kicking her feet rapidly in anguish)...(S resumes heavy panting) Get it out! Out, out!...(S continues to pant heavily) Oooh (Squealed in a heavily constricted voice)...(S resumes heavy panting and once again begins to thrash about/kick feet in bed, continuing this behavior for 30 seconds)...(following a final sigh S whispers the following) Pulled it out!... It's out. No, don't let it go back in! Out, out, out, out! (S then groans in anger) It went back in (voice heavily laden with anxiety) Oh, I had it and it went back in and I couldn't keep it out. (S continues to goran in anguish, then begins once again to thrash about/kick feet in bed. Shortly thereafter, S resumes heavy panting). Peroxide. I used alcohol and peroxide and it foams over, it foams over the and I use alcohol and it washes all away. It foams over the kitten's skin and the kitten's crying and it's so scared but it has to trust me (spoken extremely rapidly)...It's shaking and it's so scared and it's cold and it doesn't know what's going on. Pour peroxide and it foams out and it's killing that stupid worm! And it's killing that worm! I'm so mad, I'm not going to let that worm take my kitten! It's my kitten, it's my kitten, it's my kitten! I'm not going to let it go and I squeeze it and it hurts the kitten but I'm getting the worm. It can't have my kitten! It's not going to, it's mine, it's mine! The worm can't have it! It's on it's side, the poor kitten is shaking and I'm out there a long, long time...I'm out, I'm up there dousing it and it foams over and it's killing that worm! It's killing that stupid worm! And it doesn't matter how far inside it goes because it can't get away from that peroxide. I'm killing that worm with the alcohol and peroxide! And the kitten is wet and cold and it _____ (unintelligible) pulls open this horrible, awful... (S begins to sob, continuing for 20 seconds) I couldn't help the first kitten. I couldn't help it. It was sitting there in the park (S still crying). It was dying, it was walking around like it was drunk but it was just dying. This worm was eating...(S begins to sob heavily once again) _____ (unintelligible) But it was going to get this kitten. It got the other one but it's not going to get this one. This is my kitten and it can't have it (voice heavily laden with anxiety)...(S resumes sobbing, continuing to do so for 30 seconds) Oh it hurts, it hurts! My chest hurts...(S continues to sob) My throat hurts...(S breathing heavily) Nobody _____ (unintelligible). Nobody _____ (unintelligible). I sat there by myself. There's nobody else around. There's the kitten and this worm and I'm fighting the battle and I'm going to win! That worm wasn't going to win (voice sounding very gravelly) And it wasn't going to win!

ClockET

I was going to win...That night, that's all I thought about. This poor kitten. That was the only one I couldn't do anything for. That was the only one I couldn't do anything for. And I'm _____ (unintelligible) sticking pins in a worm and pulling it out! I'm pulling it out! Pulling it out! Get it out of there! Out, out! This great, icky, slimy, gross worm couldn't have my kitten! My little baby kitten (S resumes sobbing once again, continuing for 20 seconds) I had to go away for school and I didn't know, I didn't know if it was going to have my kitten. I didn't know if it was going to take my kitten. I was away and there wasn't anything I could do (S sighs deeply)...(long pause) It did get better. My mom said it did get better. It got better...The kitten got better...The worm...The worm _____ (unintelligible) inside the fur. The worm went away (voice barely audible). There is no worm. I won (barely audible)...I won. The kitten... I won...I won. I got the worm. It's my kitten...A fight between me and the worm. I won. It's my kitten and it can't have it...And I won. It's my kitten (barely audible)...The worm is gone...Disappeared...(long pause) The sun. The sun in the morning...little kids strolling...Coming up over the horizon..._____ (unintelligible; voice barely audible)...(S continues to whisper unintelligibly for 20 seconds) Birds waking up...Owls wake up..._____ (unintelligible)...(S coughs loudly) Petals opening..._____ (unintelligible)...The sun opens a new day on my world...(long pause) The sun... Gently massaging the world from its slumber...Gently, my _____ (unintelligible)...My _____ (unintelligible)...The world is mine _____ (unintelligible) baby. Baby's breath, opens its eye to a new day...And clutches and clutches its face. And it looks around and _____ (unintelligible). And the breath that contains it..._____ (unintelligible) straight ahead... Silver sailboats...(S coughs loudly, then sniffles and sighs deeply)...Spinning, around...and around...Silver sailboat...Dancing in a _____ (unintelligible) sailboats... Male sailboats on the ocean..._____ (unintelligible) winds. Enormous winds. _____ (Unintelligible) sailboats just barreling along. Don't want to sail in the...They ride the surf. The sailboats... _____ (unintelligible). The sailboats are little people...by themselves _____ (unintelligible)...Oh straight _____ (unintelligible) black _____ (unintelligible) weaves in and out. I can see the _____ (unintelligible) of a shark fin. The skin is rough...Even poking the skin will cut you...(S rolls over in bed)...(long pause during which S sighs heavily) I can just see it...The white mouth...(long pause) A spoon sticking out of a bowl of...First it was cereal, then it was ice, then it was rice...It's white, it's a clear bowl... Big fish bowl full of popcorn. Styrofoam and it's white

ClockET

mist... And all the whiteness stays inside (whispered through a yawn)...The fishbowl...And then a little _____ (unintelligible) of whiteness comes out of the fishbowl...Dances around...Turns..._____ (unintelligible). I see the white cheeks of a fox looking down. The fox is looking down through the black into the white...Oh no ...I didn't see the worm? I'll only mention the black... While thinking of the white..._____ (unintelligible) white _____ (unintelligible)...(S continues to whisper unintelligibly for 20 seconds) Everything's _____ (unintelligible) white...Brown, like _____ (unintelligible) mouse..Now it's a lady..._____ (unintelligible) ...It's big and it's luminous, like a dress. I see the back of a dress outlined in black...A very simple dress... Then I see the front with the arms stretched upward... (S coughs) It's a Victorian dress and a woman's in it... And the waist is small and a big skirt makes the dress go out. There's white ruffle on it. _____ (Unintelligible) lace...Hoop skirts and tiny white shoes...Light-house and _____ (unintelligible)...(S coughs loudly) And a dress that's too big. Somebody _____ (unintelligible) in the mirror (voice barely audible)...Oh pearls...Wildflower...A crown with jewels in it...(long pause, during which S yawns) White rose. White silk rose...Beautiful...stem...White bell. Wedding bells... They look like sugar candy. Two of them, swinging in opposite directions from each other. White sugar bells ringing back and forth...loose. Loose and happy and they're so _____ (unintelligible) tied with a bow. The top of a chapel... The bell goes swinging loose and hits the ground and doesn't break...(long pause) White bow...(long pause) Lamp...There's a big _____ (unintelligible) falls over the front wheel of a motorcycle...(long pause, during which S coughs loudly) And the person who flew over the edge of the motorcycle goes round and around and around. Evel Knieval. And he's got his bikes...And a rodeo clown horse..._____ (unintelligible) And there's nothing anybody can do for him...(S coughs loudly) I just tried to watch it get gored again and again and the bull...Those are long, long horns. And it's dead. The _____ (unintelligible) is trying to cross the bull's horns... But the bull is big...White bull...White horns...(long pause) A steer...dropped into the picture and is now receding back. It's small and it's representation is just an outline like of a steer...(long pause, during which S rolls over in bed and coughs loudly) Guinea pig (whispered through a yawn)...Wide awake...Hi guys! (spoken as S rolls over in bed)...Cuteness...Oh what is this? (voice barely audible) Pull it out, pull it out! The kitten..._____ (unintelligible) Against the world... Pulls it right out! The little kitten _____ (unintelligible)

ClockET

...(long pause) I see a long black thing...Like the seat _____ (unintelligible) But they're fascinated by it's grossness...(S continues to whisper unintelligibly for 30 seconds) Cut it off! Right with scissors..._____ (unintelligible) Cut it right off! Rip it right out! ...There he is. It's all done...(long pause) (S whispers unintelligibly for 30 seconds) Black curly hair and a beard with a _____ (unintelligible) on...(long pause) (S continues to whisper unintelligibly for 8 minutes and 30 seconds) Movie _____ (unintelligible) people rolling around in a bed...room and I killed _____ (unintelligible) And when it ends _____ (unintelligible) in a pile drying with her eyes open. I see the church...The church...And our maid is a Christmas present to L. (male)...Nobody knows I made it for L....I made this...his candy _____ (unintelligible) snow. Gingerbread, rolls. Summer's _____ (unintelligible) house. And the steeple...And the steeple in the church are on the scroll. And on the scroll I wrote this poem...'L'...'L'...You'll never know what you gave to me...A part of life I might never have seen...And you touched my mind and my soul blind. The eagle soars into _____ (unintelligible) night skies. L., What's happened to me?...The dream I had the night I met you took control of me...The _____ (unintelligible) hands above my head occurred ominously...I'm finished. (Long pause) A church... A church...A _____ (unintelligible) church that nobody knows...No one understands...(long pause) Multicolored ...star. It looks like a star _____ (unintelligible) It keeps changing...I hear guitars in the background (none, in fact, can be heard)...(S continues to whisper unintelligibly for 30 seconds) I see someone come in the door. One of us in the back _____ (unintelligible) Brown and white _____ (unintelligible) Bare feet... (S continues to whisper unintelligibly for 1 minute 6 seconds, afterwhich she sighs deeply, then states the following) I see a woman's _____ (unintelligible) on a TV screen...(S rolls over and over in bed for 15 seconds)...Amityville tragedy..._____ (unintelligible) And a dragon...(S continues to whisper unintelligibly for 2 minutes)."

1:44am 73

(End)

1:50am 79

(S whispers a few words extremely softly and unintelligibly.)

4:48am 257

(S sighs deeply, then whispers the following) My ears are wet...The tape recorder...Just the background noise."

Night: 10
 Treatment: E
 Alarm Set For: 6:30am
 Lights Out: 12:52am

Clock ET

12:55am 3 (S can be heard scratching herself in the background, afterwhich she yawns, coughs loudly, then whispers the following) "Ring...like a bagel...I see a bagel with cream cheese...It sounds good. I'm hungry. A carrot... Carrot with those little stringy roots in the bottom... And those roots look like a flower..._____ (unintelligible) A blue and a white flower...Very light petals... Except they don't look very much like petals...They look more like stringy hoops..._____ (unintelligible)... (S rolls over several times in bed...(long pause) A cup ...A kind of pot with three legs (S yawns)...Somebody's stirring something in the pot...Now the lid's back on. The spoon is still in the pot...(S rolls over in bed) I see something dripping...Like water from a tap...And somebody turns a faucet all the way on and then it's just dripping again...I see a view from the sink...What this drop looks like. It dropped right into my eye, on my forehead...Drop...Time slows down as I get into the drop... I see the colors, the shapes as the drop goes from the faucet to the sink...(S yawns)... The colors of blue and red...yellow...yellow like a pineapple...The pineapple then has brown spots on it but...not too many. The pineapple tastes good. Isn't it terrible not to eat _____ (unintelligible) like coconuts. The coconuts are good. I see someone drinking the milk from the coconut and eating something else. Like eating a sandwich, drinking coconut milk...Someone who has white hair but otherwise is black..._____ (unintelligible) White hairs ...(S yawns loudly) I see a spot in the air. I see a spot...Then it keeps moving back and around...It's a beautiful moon and it's someone with a hand over their mouth. Someone trying to pretend they have a moustache ...(long pause) Black lace...Like on a, like on a... Maybe..._____ (unintelligible)...(S rolls over and over in bed continuously and heavily for 45 seconds) Popcorn...Oh food, I'm hungry (voice barely audible)... Candybar. Somebody eating a candybar and an ice cream bar...I see a bite out of an ice cream bar (S yawns) I see a pig with a tall black hat on...And then I see a goat and he has something on but...It looks like a tiny saddle...I would fit right in your hand...A glove over their mouths. They have a glove over their head and they have teeth like ours which of course they don't...(S yawns) ...Somebody smiled. Look at their eyes, they look like

Clock ET

the devil... This yellowish eye has a dark center and they're pupils...It's gros. _____ (Unintelligible) Now it's a cow with a nozzle...Somebody takes the thing outside the nozzle like there's a little bonnet, a little white plastic _____ (unintelligible) With a black label on it. A black label. They pulled off the top of this three inch thing. They squeeze it and hand lotion comes out. Somebody's squeezing it so it squirts all over...And it, the lotion gets all over somebody. But they don't care. It's just dripping down...I see a bunny rabbit...Blue eyes, but it's a wax bunny...Not even white but just kind of clear...And I see a pony tail going through an opening in a wall or something. It's attached to a person...This woman has this long _____ (unintelligible) pulled through this wall ...(S whispers unintelligibly for 15 seconds) I'm talking to somebody about school. She has two other classes... (S continues to whisper unintelligibly for 1 minute 21 seconds) A silver buckle. The buckle's kind of Westernish. But the _____ (unintelligible) is nothing good, it's _____ (unintelligible)...(S continues to whisper unintelligibly for 36 seconds) Somebody is tickling someone else and that someone else is me."

1:07am 15

(End)

1:10am 18

(S whispering) _____ (Unintelligible) "Some shopping with a little pearl and the _____ (unintelligible)... _____ (unintelligible) shopping...It's col-l-l-d. Mrs. K. _____ (unintelligible)."

1:11am 19

(End)

4:11am 199

(S rolls over in bed lightly, smacks her lips, then whispers the following) "I don't want to talk."

4:15am 203

(S inhales sharply, then whispers the following) "It won't...move...on the move...on the move." (Whispered quite rapidly, voice barely audible.)

4:16am 204

(S rolls over heavily in bed several times, then whispers the following) "I like the guy came out of it."

Night: 11

Treatment: D¹

Alarm Set For: 7:30am

Lights Out: 11:47pm

Clock ET

11:50pm 3

(Spoken in an affected whisper) "The dream seems to end just as soon as it had begun. Was I to know that last thing of all that was on my mind. It was the close,

Clock ET

the end of a show...Shadow of a lonely man...He sees nobody else...but the shadow of a lonely, lonely man (whispered with exaggerated drama)...I can see myself...(long pause) Head...with a rippled brow...Tan head...Cowboy hat...(long pause) Banana peel...A shoe. I see someone stepping on it...I see them from the underneath side...I see a piano lock only half way...Can't get the, can't get it unlocked. I'm turning the lock around and around both ways...Can't get these keys unlocked...The lock of a door...I see a stick in a girl's tube top and it, and it, and it twists it...when you let go it should twist like a propeller and fly...Should be able to fly (voice barely audible)...A post and a long stick in the middle...Tree in a pot. The pot isn't very big...Leaves in a square trough-like lantern on top of the glass and stones of a planter. Tiny little banzai forests...Big ugly bug like a three winged _____ (unintelligible). Hairy and ugly with antennae moving around. Really sick (S yawns). A brook or a stream... (long pause) Someone running with a baseball hat on in full run. It's a gray and red hat...(S yawns) Someone crossing a finish line...An upside-down can of Skoal tobacco...Has a red lid...Tobacco is something that is not healthy..._____ (Unintelligible) two men are the last to know...(long pause) Johnny Carson sitting in a chair. There's paint on the top of the chair. There's a stereo set except he doesn't appreciate it...Um, um...The guy who... West Side Story. They're teasing him...He pulls up his pants and _____ (unintelligible) and gives them the finger...He'll never give..._____ (Unintelligible) his pants. I think they look stupid but they're his pants. He's entitled (voice barely audible)...(S whispers unintelligibly for 15 seconds) It's like, it's like sticking through, it's...swimming camp... And the camp becomes a band. That band _____ (unintelligible) has blonde hair. Just a little flip up and back (S yawns) And the _____ (unintelligible) around in white... Someone dressed up in winter clothes. Ugly little girl with a scarf wrapped around her head..._____ (Unintelligible) Never said anything to me...I'm at dinner...But he never said anything and a...Just a, J. (S's roommate) walks in the room and she says, 'I want to know who is doing this.' Kind of, she didn't say it exactly like that."

11:59pm 12

(End)

12:00pm 13

(S rolls over in bed heavily and whispers the following) "I'm freezing...It's like I'm sitting in a tub of ice water or at least _____ (unintelligible)..._____ (unintelligible) cheese on uh top...a donut. I _____ (unintelligible) and a donut...(S yawns)."

12:01pm 14

(End)

<u>Clock</u>	<u>ET</u>	
1:59am	132	(S rolls over in bed, groans, then whispers the following) "What?"
3:12am	205	(S shifts positions slightly in bed, sighs lightly, then whispers the following) "Damn... (S can be heard smacking her lips for 15 seconds, afterwhich she resumes deep, rhythmic breathing)."
6:40am	413	(S smacks her lips several times, and whispers the following) "Good show."
6:53am	426	(S smacks her lips several times, rolls over in bed lightly, inhales sharply, then whispers the following) "Bird last winter...night."

Night: 12
Treatment: D¹
Alarm Set For: 6:15am
Lights Out: 1:47am

<u>Clock</u>	<u>ET</u>	
1:49am	2	"Up in the morning out in front of a mirror (whispered). Slowly rising into another sphere...Oh world, goodbye (whispered melodramatically). _____ (Unintelligible) look home to the sky in the morning, bye bye...(long pause) This is it...(long pause) It's gonna be over and I'm sad... It's the last night...(S sighs) This is it...(S sighs heavily) Why does it have to be over? ...(long pause) OK, here goes. I see a skull...looking at typology. It has a big brow ridge...(S sighs heavily) And lot of post _____ (unintelligible). It's probably Australo Pithacus...(long pause) Australo Pithacus Robustus...Big brow ridge...Brownish skull...But the white plaster part shows that some of the...(S yawns) ...the original skull is missing...I see...Homo erectus. Hand tools...Hand axes, but they were poor tools... Knives that were like tools...A book. Book laying down on a seat...Flat with white pages (S yawns)...A tear falls out of the eye of a person...And the wind comes and blows it away and this tear travels on the wind... It's moving farther, farther...If you look at the tear it has the whole world in it...The tear reflects every- thing...And a tear hits a flower...until the flower... It's yellow and green...or a piece of clover (S yawns) ...A pice of red clover and it hits the flower pot and it's a little bent but it's fine. And the tear trickles down...the stem and it lands on an ant...Lands on the head of an ant...And the ant thinks that the tear came

ClockET

from the flower...And the ant asks the flower, 'Why are you sad?'...And the flower says, 'Sing a song. I'm a lonely little petunia in an onion patch...Boo hoo hoo hoo hoo. Boo hoo hoo hoo.' Hair coming out of a bowl on somebody's chin. It looks dumb. And I see a snout of a pig and its dum nose...I see a girl with long black hair...down to her waist. It's in a pony tail...(S turns over in bed and coughs) I see (S yawns) somebody's hair sticking out of their head. It's long hair. And I see John Norman from 'A Star is Born'...Just a beard and a moustache...And I see E. (male friend) as he was sitting on the grass before I left tonight...And I see hands like chimpanzee hands and they...The hand grasps at something. It was probably just the wrist...(S whispers unintelligibly for 35 seconds) French toast...Oh with butter...(S yawns) I see like a saltine cracker... In fact I see a whole scene in a kitchen getting ready for a Christmas dinner...(long pause) I see a tool... A cork tool but it has eyes in it. I see blue eyes that protrude...I see these big blue eyes (barely audible)... In the cork tool...(long pause) People bending over... Like pulling at the same blanket...Some girl lunching on it...And cockroaches. But cockroaches are supposed to be brown...(S whispers unintelligibly 20 seconds) I don't know why? A blue string skirt and her hair...(S yawns) is put in a bun that sticks straight up on her head...(long pause) Hey somebody just picked up a tray. We're all eating in a _____ (unintelligible) Norwegian ...Why does Dr. R. play a _____ (unintelligible) this time?...(long pause) He's describing a little more then the structure of it...(long pause) Somebody's baby."

(End)

2:01

14

APPENDIX F

**Verbatim Transcripts of
Subjects' Sleep Lab Dream
Questionnaire Responses**

APPENDIX F

Verbatim Transcripts of Subjects' Sleep Lab Dream Questionnaire Responses

S U B J E C T 1

Subject: 1

Night: 1

1. I was in a large house with some friends of mine who I recognized from my floor in the dorm. It was set on a hill and a house itself was really elegant. The room we were in had light blue velvet chairs and a swimming pool in the back. Everybody was dancing in old-fashioned full dresses (or at least the women were).

Night: 2

1. Someone kept trying to hypnotize me and I kept letting my mind wander to a math equation, $3x + 1 = f(x)$. Soon that was all that was there; it came to life, so to speak (3-D).

Night: 3

1. I remember looking at a person as if I was level with their stomach. The person was wearing black glasses and I distinctly remember the nostrils--simply as 2 oval black areas. The person was not moving and I got the impression that he/she (couldn't tell which) was dead. I remember that I was really upset and frightened by this image, but I could not force myself to look away. The person was lying down with hands clasped together on the stomach (the vision quickly flashed onto this image and then rapidly faded back into the face/nostril image). There was soft harpsichord music playing and the odor of flowers was very strong and overpowering.

Night: 4

None Recalled

Night: 5

None Recalled

Night: 6

None Recalled

Night: 7

None Recalled

Night: 8

None Recalled

Night: 9

1. A friend of mine from down the hall, myself, and 3 other people I didn't recognize were eating in the dorm's cafeteria. All of the other tables were empty. My friend kept laughing and the other girls kept crying. My friend was eating ice cream and the other girls were eating pizza. I remember that I said something to trigger off the reactions of the people, but I can't recall what I said.

Night: 10

1. While playing pinball in a bowling alley, I correctly predicted where a volcano was going to emerge. It was a Thursday and I was attending some club meeting. A guy in navy blue striped shirt seemed to be in charge and he called the meeting to order. "O.K. Now we're all going to make predictions." Then he went on to forecast the weather. I remember saying, "I have to get home now. My parents don't know that I left." Then I went outside, got into my car (blue 4-door) and drove out to the volcano. Some other person from the club was there and I started jumping up and down yelling..."I'm so proud of myself. I predicted this. I was right. Have you ever predicted anything?" The other girl (long dark hair with dark eyes in a pink shirt and black pants) said, "What?! Of course! I thought that everyone knew I predicted this volcano." Then we got in an argument over who had actually predicted the volcano. Finally, I got in my car and drove myself into the center of the crater.
2. There was a whole mob of people who seemed violent in intent and they (we?) were walking down a street at night. (I think I woke up here.)
3. Gigantic masses of green things floated down upon some place. (I know I woke up here.)

Night: 11

None Recalled

Night: 12

None Recalled

S U B J E C T 2

Subject: 2

Night: 1

1. My mom and I are picking out the materials for her new house--she wants refirbished brick (sic)--we are sitting in our kitchen and my sister and brother-in-law are there, we are all helping her make up her mind, but she doesn't want to be pushed into anything.
2. Someone's parents are coming home from Tucky.
3. The six of us out to dinner at Hudsons at 12-Oaks Mall--they can only seat 2 at a time--So mom and I eat first. They have chocolate cake for dessert--neither of us want any--the room is done in green and white and natural wood.

(All of the above written at 5:00am

4. I'm supposed to record sudden death overtime--???--there is some-one looking over my shoulder, in the same position as I am.
5. My brother sent us a map of someplace--it was real complicated and messy.
6. My sister and brother-in-law are packing and moving to Atlanta, Georgia.
7. I'm telling R. (roommate) what to say if anybody calls for me. "I'm out and you don't know when to expect me back--take name, number and message and I'll call them back as soon as I can.
8. B. (sister) or B. (female) is telling mom that she shouldn't worry about the plant--she'll get a clipping next time she comes home (one of the girls comes home).

Night: 2

1. I am applying along with a sheep dog for admission into a frat. The guy in charge is asking me questions about the dog--I don't know why I've never seen it before.

(Above written at 5:50am.)

2. I met a guy at J.'s (male) place and after being introduced I couldn't remember his name, finally I asked after he left--his name was C.--a name I have always liked.

3. I went to a Lou Rawls concert. I was really excited. It was very small and personal and I sat right in front of him. It was a nice club. Everything was black except the table cloths and the spot light which was white. I was very impressed by him.

Night: 3

1. I am a chairman of the board of some big institution and our job, or my job is to pick out or assign a location and school for delinquent boys and college students.

(Above written at 5:35am.)

2. Now that everything is ready for the landscapers to do their work--the man in charge tells me he doesn't have the materials--I'm mad.
3. The dance studio is teaching disco to these little kids--It's really discusting (sic) to see a little 9 year old kid try to be John Travolta. Most of us regulars are very upset.

Night: 4

None Recalled

Night: 5

1. I was standing outside the Union (side door west side) looking in my back pace at books that weren't mine, and telling a friend that I had called for them to come over, but I couldn't remember why. It was raining.

(Above written at 5:20am.)

2. S.D. (female) and J.H. (male) were eating dinner in my apartment.

Night: 6

1. A guy and a girl are going out to dinner--She is the executioner and he is the executional and they are waiting for a bus to Grand Rapids. My mom and I are also waiting. The Bus station has a front and a back drive and no one knows which side the bus will be on, so everyone is running all over the place--hoping they will get a seat on the bus.

After we (Bob and I) talked, my brother was also at the bus station and wanted to know if I would like some pizza--this was the following

day--we had been waiting for the bus all night--but the one that came was full--so we had to wait--I think my grandmother was there (she had been dead for 3.5 years).

2. (I remember saying) "I'll drive" (this was much before the last one--probably shortly after I went to bed.

Night: 7

1. There were 3 people, myself and 2 others--we were all having musical dreams--we would be able to wake up and hum, sing or write down on paper a classical work or composition we had never heard before. We all were living together in the same apt. One was a guy and the other a girl--I don't recognize them--when we woke up we would stand by a fireplace in our living room. On one side of the fireplace was a piano and tape recorder and musical stenography machine on the other--we would get up and sing, play or write for the others what we dream--there was a big long couch and long coffee table in front of the fireplace.

Night: 8

1. I was wearing tan pants--and someone was patting my rear end.

Night: 9

1. My mom and I were out at Kingswood Girl's School to hear the Southfield High School Madrigal Singers do their concert for winning state competition. They don't like men there. Most people were very rood (sic)--The concern was by invitation and everyone got their own program engraved with their name. As we were waiting in line down this beautiful hallway a door leading out side was open into one of the several gardens and I could hear a phone ringing which sounded like it was coming from outside--we went into the chapel where the concert was--it was small and very ornate--The group was standing casually up front so we went up to talk with them. I was more interested in finding a seat because it was filling up fast--The people sitting next to us were S.Z.'s (female) family. S. wasn't there. One lady was too crowded with her fur coat so she got up and left 1/2 way thru--I talked to D., my x-girlfriend (she's in the group) and S. (male), but S. wouldn't talk to me. I also talked to J. (male), the director and a good friend--he asked me to eat dinner with him tonight. I accepted. The engraved programs were covered in plastic so you could keep them forever--this was a really big deal concert.

Night: 10

1. I'm at Metro Airport in Detroit and K.P. (male) is there. He's my old roommate from fall term. And he's writing a paper about his high school's principal. And it's this terrible malicious paper. And he's getting all these terrible things from all these people that know him. I don't know why we're at the airport. Neither of us are going anywhere. The place that we are at at the airport is set up very similar to this place. Um, we're staying in a room just almost near the end of the hall. It's like a dead end hallway. There's not a lot of traffic there, people traffic I mean. K. has got gray hair. I don't know why. Oh, and there's a third person. I don't remember too much about the room we're in at the airport. He's just gathering all this malicious information about this guy. I don't know, K. has gotten smaller. He's in, in real life he's about 6'3". In the dream he's not any bigger than I am (about 5'8"). Oh yes, I do know who this other person is. It's P. (female). I don't know, he just has this terrible revenge. He wants to get back at this guy for something. Did I tell you who the guy is who he's writing about? It's his high school principal. I can't remember all what I've said. Um, K. has gray hair. I don't know if I said that... (long pause).
2. Oh, and I had another one right after that. I was in my room back at my dorm and B. (female) came in. She lived in Landon. And I was still in bed. She came in and she sat down on the bed with me. For some reason I had a double bed in my room. I don't know how I had that but I did. And she was asking all these things about, she was asking me about things you ask me about. About how did I sleep last night and how did I dream and this and that and the other thing. And then I started asking her questions and uh she wouldn't answer, she wouldn't tell me because she came in and she was taking the electrodes off my head in the morning. All this stuff. And I don't remember what I was asking her but I was asking her questions. Questions about you know, what I did and what I didn't do. And she wouldn't answer any of my questions. She was kind of making fun, well not making fun of me but laughing at me because she knew what I did and didn't and uh I don't know what irritated me. It didn't really bother me that much.
3. And I had a third one just as the alarm went off but I can't remember it.
4. And, uh there's another one... (long pause) I don't know anything except Grand Rapids is sitting on my head. I keep thinking Grand Rapids, Grand Rapids but I don't know what about Grand Rapids.

Night: 11

1. I'm in a, it's like a men's choir and the director isn't there. So one of the guys is conducting and teaching the class. And he's alright but he doesn't know that much.

2. And K. (male), from the first floor, just saluted me from dinner last night. ...(long pause)...(S's breathing becomes rapid and regular and it seems as though he has fallen back asleep). It (groan) goes all the way around. I keep seeing this great big black car...A limousine, it's a limousine. It's just sitting there...I'll see if I can...(very long pause) And...(El finally knocks on door to S's room. When he enters he expresses concern that S had fallen back asleep. S responds, "I did.").

Night: 12

1. I met someone on the street and we talked.
2. Something about somebody's sister coming out--she wanted to talk to me.

S U B J E C T 3

Subject: 3

Night: 1

1. B. (Experimenter 1's name) and I were talking about the experiment. We were using the data in an unexpected way. We used my results as evidence to say something about B.'s sleep cycle.

I was disappointed that the emphasis was directed at him and not me. He became the more important one and I was secondary. He said something about the fact that he had no legs. At first I was shocked and looked down to see that he had no legs. But then I remembered seeing him sitting in the chair hypnotizing me--and he had two legs. I gathered that he must have been joking. And then when he said that half his torso was gone--I had a mental picture of what that must look like, and was sure that he was only joking.

(All of the above written upon awakening at 3:30am.)

Night: 2

1. "Leave my loneliness unbroken." He was a parking lot attendant. There was a checkout at the door that the tan girl with the long strong dark hair could not pass through, her experiment was over. They tried to tell her tactfully that she couldn't come in.

My mother asked E.U. (male friend), whether he had brought the check. It would have been a rather large sum. Well, he had forgotten to fill it out anyway.

Our families had moved, but remained the same distance from each other, relatively.

2. A guy on our floor with moderately long brunette hair is standing in the doorway of a couple of girls on our floor. L. (female) is there and has no clothes on, but the guy can't see her. The girls were acting coy and asked the guy if they could have some of his suntan. They had strap marks and wanted not to have them. It seemed almost as if it were possible to give the girls some of his tan, as if it were a lotion he could spread on. This is where they tease him, because of course the areas that are still white are forbidden areas anyway.
3. An Indian leader walks with a tour guide through the Indian camp. They lead the group across soft skies sewn together over the grass. There are statues of the Indian women that the group walks past.

The Indian leader would like to protest; they are showing the women's world, and not the men's realm in that tribe. His protests are lost in the murmur of the crowd.

(All of the above written upon awakening at 3:30am)

Night: 3

1. His concentration was good enough to have Plaza Suite Hotel in his mind. He was able to think an abstract thought while concentrating very deeply, too.

He (the observer, assistant) said that he would place the numbers--that is the mathematical formulas--over here on my legs. At first I thought--fine. But then I realized that he couldn't make me perceive or even know if I dreamt about formulas. They didn't have physical properties like laying a noodle or carrot over my leg.

I am the only one who would know how or if a piece of data was interpreted as a dream.

Pin down Christ (Le Florie), right out of a play, lines and all. He was more than a colleague after that. Went to do something (he did) about everyone. We were all starving and there was no food to be had. It was raining and he was concerned about the woman and the child.

We cast ballots that actually determined whether we would live or die. People didn't see the gravity of the situation because in the two columns there were a few abstentions, some votes for the liberal part, and even one independent ticket. The bottom right hand of the ballot sheet was decorated with an Easter bunny that a child had colored in.

A boy trying to get his bike out of the garage. I helped him get his pedal out from between the spokes of another bike. I asked him if he would fill out a ballot. He asked if he had to do it now. I said that it was a matter of life and death, and that--yeah, he did kind of have to do it now.

(All of the above written upon awakening at 4:40am and 5:20am.)

It was raining. I was outside the building with Christ. We were pinning down Christ (whatever that means). We spoke to each other from the lines of a play. I think another man spoke of him as a business associate and said "He was more than a colleague after that."

There was no more than a handful of people around. A woman and her child were sleeping in the building. I was hungry and they were even hungrier. It hit me as kind of a shock when I realized that there was no food to be had. It was hard to imagine that I might actually starve to death--but that was the situation. Someone had to get food soon, or we would die. Christ was concerned about the woman and the child. He went to go do something about the situation. I imagined a scene where the food would apparently multiply as with the fish and the bread.

There were ballots on a piece of paper that was passed around. Our votes on this ballot would actually determine whether we were going to live or die. What was unusual was that on the ballot were things like the Republican ticket, liberal party, abstentions and even an independent ticket. It was just a little funny--these people didn't see the gravity of our predicament.

At the bottom right corner was a big Easter bunny drawn on and poorly colored in by the child who slept in the house.

Everyone seemed very unconcerned, they all seemed to be moving about everywhere, leaving. A boy was trying to get his bike out of the garage. There were other bikes around and his pedal was stuck between the spokes of another bike. I helped him get the bike loose.

I asked him to fill out a ballot. He asked, as if in a hurry to get somewhere, "Do have to do it now?" I looked at him surprised by his ignorance of the importance of the ballot. I told him it was a matter of life and death and said sarcastically, "Yeah, you do kind of have to do it now."

(All of the above written at home later in the day and intended as a "clarification" of that which was written in the lab.)

Night: 4

None Recalled

Night: 5

1. Introduction--now that's class. Introductions were made through a screen door as if to filter them.
2. Christmas time. L. (sister) and I were deciding how to decorate the tree. This year I finally decided that tinsel was okay. I was looking for red construction paper in our drawer of colored paper. C. (sister) found some red and pulled it out. It had writing on one side. I tried to cut out a 4 in a spot that would have no writing on the back. Then I decided that the back couldn't be seen anyway, so it didn't matter.

I took a long piece of red to consult my mom. It was about 4 feet long, in the shape of an apron. I knew before I asked her that it was probably for the display we have of Santa and Mrs. Clause. I showed her, she confirmed that that's what it was and I went back to the other room to find something else. The Christmas tree this year had a nicer shape this year than the one last year, but was about 3 feet shorter. I was a little disappointed that we didn't take advantage of our 12 foot ceiling.

L. had set the tree right next to the fireplace. I thought of the fire hazard, but wasn't really concerned. There was no fire in the white fireplace, and we could easily move the tree a few feet if necessary.

This living room was different than ours. It was all white and bare. There was no furniture.

L. and I were singing Christmas carols--all the really old ones that our mother would have sung when she was small. Singing the songs made me sad and nostalgic. I thought of all the beautiful Christmases we had when we were very little. I was feeling very close to L., and I went up to her and gave her a big long hug--whether she liked it or not. She didn't resist, but I could see a tension. It would be a while before this was accepted naturally.

3. Our whole floor--our brother floor included--lived together as we do now, but it was a place that looked quite different.

I remember standing at the top of a stair landing that was up in the air. A couple of us were standing here, discussing some important issue of the floor. I think there was a group of people below the landing and off to the side who were congregated for some purpose; perhaps to express their disapproval over the way something was being done that concerned them. I wasn't sure.

J., L. (females) and I were walking to another hall. We walked through bushes and across the grass. On the lawn we were joined by T.E. (female) and a friend of hers that I didn't know--a short girl with wavy blonde hair.

T. was a good friend from many years ago. There was another girl in my original group who was a very good friend of mine but I can't recall who it was.

As we were all walking, I introduced T. to the others as E.E. (I used to call her this to tease her.) I asked T. to introduce her friend and I felt embarrassed because I think I should have known her name. I covered my embarrassment by unconcernedly doing a couple of cart-wheels.

We all had our ID's, and a thick fuzzy blue thing that had a small pocket to hold our cards. I didn't notice the pocket at first, and when someone else pointed it out to me I thought it was pretty neat.

I think we were all going to take a chemistry test or watch a movie because those are the things we might need our ID's for.

C. (female) was with us, and as we were in the dorm hall, she sat down and started searching frantically for her ID. She had apparently dropped it outside. She looked up at me as she was sitting on the floor, and asked if I would go outside and pick it

p for her. She looked so helpless, and I guess I was better able to go outside than she was.

When we got to a room in the dorm of one of the girls I didn't know, I had to go to the bathroom. There was a john sitting in her room off to the side, covered only by a sliding white curtain (like the shower curtain in the lab).

So I went behind the curtain and sat down. There was an ant on the seat and I flicked him off. I was still watching whatever they were doing. J. made a comment that suggested that she was surprised at my behavior--I should have closed the curtain completely. I was a tiny bit embarrassed after she said this, but didn't see what the big deal was with a bunch of girls.

Night: 6

1. There is a tall glass door with the name Robert printed on the inside on the top. I can't get in. It seems to be the door into the Health Center, and I must get in. I hear a voice that says, "You could get in if you wanted to," as if there were a way for me to will it open. But I don't think its a matter of will if the door is locked.

The son keeps going through my head that goes in part: I need you more than I needed you before and I _ _ _ God knows, 'cause you left me just when I needed you most...

It seems like a large portion of the night was spent in a dream where B. (Experimenter 1's name) was sitting off from me, recording something about me. Everytime I did this repetitive behavior it would add to this sum, and was ever increasing--like adding drops of water to a bucket--eventually it will overflow.

I was surprised to keep looking at B. (Experimenter 1's name) standing next to this tree, seeing the amount growing. I had known about this behavior before, but had never thought of collecting it all into one area--or had never seen it as significant.

I can see water splashed onto the tree. I think I was wondering why he was doing this evaluation.

Night: 7

J. (male), pianos, fair and foreign people, T. (female), father with business--gas but music--piano, rent out piano by hour (?), tickets torn to indicate money, \$30 in an hour. I came down to make a little money--need it for something.

Huge room--or cave, large rocks, beautiful formations, "Can't tell perspective." Man stood next to rock. Old books that were relics of Egyptian time. I was sorting them--if I sorted them I owned them.

"Show D. (male) one from before 1924." Mom found one found old book--Nefertiti--could be read normally, or as the Arabic, from back to front (hidden message), pretty noticeable ink.

Sitting eating with people. "Are you afraid of J. (male)? "No, I used to be afraid of liking him too much?" "Ooh!...ballet little girls, dancing, select instruction, after I watched as they got ready to leave because I thought they'd still be dancing--they did.

Little girls, "I can't stop singing swan lake" an anomaly that came with the territory.

(All of the above was written in the lab.)

1. There was some kind of fair going on, there were a lot of foreign people milling around in our big auditorium. I think our family owned the building. T.E. (female) was there.

We were renting our piano out by the hour. It seemed like an essential activity like buying gas. My Dad was in the auditorium talking to a man about the piano. The man handed him some amusement park type tickets, they were two different colors, and one was partially ripped. The value of the tickets was about \$1.45. Overall, though, my father was making \$30 an hour. I came down because I needed some money for something. By being there, I would share in the profits. This was understood between my father and I.

2. My aunt J. and Uncle E. were visiting. They were staying overnight. There were two rooms with beds in them. I just assumed their family would sleep in the one room, and ours in another.

But then the adults said that they would sleep in one room, and the kids in the other. I was glad, it would be fun for all us girl cousins to sleep in one room instead of having to worry about disturbing my aunt and uncle.

Long before it was time to go to bed, I went into the room where I would sleep, so I could find the best place to sleep. It wasn't a particularly large room, and the beds were crowded together.

I got in one bed, but then moved to one I thought would be better. I imagined that L. (sister) would sleep in the bed at the foot of my bed. I liked that, she'd be close to me. The beds had only pillows and white sheets on them.

3. Still in the huge room or auditorium--it now seemed to be something of a cave. At one end there were huge rocks and beautiful, unusual formations. Our family was looking at these rocks from a distance, or as if they were under water. I said I couldn't tell how big they were, "Can't tell perspective." So my mom went and stood next to a rock, and I could see just how big they were.

To the right of these rocks were tables of old books. They were very rare--relics in themselves. It seemed as if they were excavations from a tomb or pyramid. I was sorting the books, and in sorting them I laid a claim to them.

Dad wanted to show D. (male) these impressive books. He said to my mother, "Show D. one from before 1924." He was proud of the books. My mother found one and went to show D.

I found a certain Egyptian book that could be read as a normal book, and also from right to left as the Arabic read. I opened the back cover. There was a picture of Nefertiti and Arabic writing on the following three of four pages. It seemed that the message stopped there. It seemed that this was a secret message. Certain words and sentences were written in a thicker purplish blue colored ink that made those words prominent. The illustrations and writing were pretty.

4. I was sitting at a table eating with some people. I was talking about J.E. (male), A.'s former boyfriend. A man was asking me questions about him. I believe the man was B. (Experimenter 1's name), because of the way he asked me--trying to bring out the real feelings about J. He said, "Are you afraid of J.?" I said, "No, I used to be afraid of liking him too much." The man nodded his head and said, "Oh." in an all knowing way.
5. There was a school of ballet in a big old building with many rooms, stairs and corridors. These girls practiced intensively all day, until their mothers came to pick them up in the afternoon. I came just as the day was ending. Little girls were running around, going up to instructors, saying "I can't stop singing Swan Lake." Several of the girls complained of this. It was apparently an anomaly that came with the territory.

I was jealous of their opportunity to study dance. I had always wanted to take ballet lessons.

I went upstairs to the girls locker room to see if the girls still "did ballet" even after all the dancing was over. And they did. They still stood on their toes and moved about as if in a ballet even when they weren't dancing.

(All of the above was written at home.)

Night: 8

1. Before 4am.
Coerced into helping to take care of horses, D. (male) was there, mafia leader, expensive, forever, started his horse on fire, revenge.

2. Between 4-6:30am.

Left experiment--had to go bathroom but got ready for school--came back to room--very sorry, experimenter very mad, talked for a while--a little better. Top of stairs, "You know I'd do anything for you?"

9:10 class, sitting down to eat with S. and J. (females) at 9:05, ate their leftovers.

Skipped 10:20 class to see tour of some building. It was parents day and there were lots of women. They all wore nice dresses, and I looked casual. C. (female) was there, even wore a pale green crepe dress. She was acting very polite. At one point got in a cable car that went across the room. It said it was either 1:30 or 3:00. I had to hurry to make it for my 11:30 class.

3. On a nature walk with my family--going over obstacles, into the woods near house and car. Mom said watch for moose or deer. I'm standing by car, turn around, there's a big bull moose, it looks scared and may trample me in it's fear and stupidity so I try to get as close under the car as I can. I see my family running without protection as the moose runs off in their direction.

Another and another came, and I am forced to stay by the car for safety. I wonder how my family is not hurt. When moose are all gone, I look near the car grill and see a vague furry outline. I am at first startled and scoot away, making scared noises. Then I try to be reasonable and imagine that it is probably a racoon. Finally, upon closer scrutiny it is determined to be a monkey. We are in Africa, after all. I hold it carefully in my hands and notice that it is wounded--perhaps mortally--it has a few bandages there are many others that are also hurt, that I didn't see. I put him back and rejoin my family!

4. Later...I have encountered a guy with short straight golden brown hair. He's cute. We went on the same tour or something. The scene in a house fades into one where we are husband and wife. It's kind of "Oh, yeah..." deal where--I should have known that I was married to him because the first part is a memory, and not the other way around. (That is--the second part is a projection.)

(All of the above written upon awakening at 7:00am.)

1. Before 4:00am.

There is a Mafia leader that has several expensive horses. I am coerced into taking care of them. D. (male) is there too. One of the guys does something to another, and the result is that the man's horse is burned to death. Of course he vowed revenge and set off to do an even more harmful deed to the other man. He didn't seem particularly distraught over the horse's death, but was upset about losing a possession. It was sad. It would be a never ending fight for revenge.

2. Between 4-6:30am.

I got up in the morning from the experiment and forgot to take the electrodes off. I went around without knowing that these wires were hanging from my forehead, I went to the large girls' bathroom to get ready for the day. People were looking at me strangely, and I finally discovered that I was still hooked up to the electrodes. I didn't go straight back to the sleep lab, though I should have. I went down to where S. and J. (females) were eating breakfast. It was 9:05 and I had a 9:10 class.

I sat across the booth from S. and J. They already had their food. Some of it they didn't want, so I ate what they didn't eat. Finally I went back to the sleep lab.

B. (Experimenter 1's name) was furious with me for taking off. He said he couldn't account for what went on while I was getting dressed and everything. I had introduced unknown and unaccountable variables. He got mad in spurts, but I was able to talk to him and calm him down a bit.

I told him I was very sorry and apologized for what I did. He seemed to accept a lot of it. I had to hurry to class, but as I was leaving, standing at the top of the stairway, with men sitting at tables below, I said very seriously to him, "You know that I'd do anything for you?"

He looked at me oddly as if he couldn't believe I would say that. The men at the tables laughed, and I sensed they heard sexual connotations. I paid no attention to them, but just looked quietly at B. (Experimenter 1's name). I had purposely left the statement completely open because I trusted him and knew he wouldn't take it the wrong way. I walked down the stairs and left for class.

I skipped my 10:20 class to see a special exhibition in some building. When I walked in I noticed all the women dressed very nicely. It was parent's day. I was dressed casually at best. C. (female) was there, even she had on a light green gauze dress. She was acting very polite.

C. and I got in a plush cable car that went across the room a short ways. On the outside of the door it said something about 1:30 or 3:00. I had to hurry to make it for my 11:30 class.

3. Good enough in original notes.

4. There are two parts to this. The first is where I am in a house touring it with a guy. He is cute, with straight golden brown hair. We seem to be starting to get to know each other.

The second part is where we are walking around the same house, but now it is our house and we were married. This seems very natural that we are married, The "now" is in this second part.

I should have known all along that we were married, because the first part is a memory. It wasn't that the second part was a projection.

(All of the above written at home at 8:30pm and intended as a "clarification" of that which was written in the lab.)

Night: 9

Beach--Aunt J.--When do you think you'll be done sewing?

Dr. B., small class, met in his back yard sitting on a wooden bench--told different people what they could be doing, i.e. playing basketball, going in his house, etc.

I was standing outside a bunch of stores that is a plaza--on a Sunday. A girl came up to me and asked if I knew whether any of the stores would be open. I said I didn't know. She wanted my opinion on a certain jacket made by Danskin. It was just like the one she had on, she said. The coat she had on was a beige trench coat. She wanted to know how I felt about the color. I think it was purplish.

After 5:00am.

E. (male) and I were in the grill. It was closing up, curtains drawn. Went down hallway. Our dorm was on the ocean. With K.S. (male) and at least one other girl, perhaps also another guy. Walking on bridge or dock that went out over water. L. (female) was waiting for P. (female). There were only three weeks left in the school year. L. said we have to make plans for the next year.

I went down by the water and was wading like a crane--looking for little fish. I caught a little fish and turned it halfway inside out. I said, "Why do we have to make plans?" I know the guys didn't want to have anything to do with the plans that L. was making, just because guys want to live in the now and enjoy this--but want no commitments about tomorrow.

When I walked past K. he kind of stopped me and was looking at my derrier and making approving kinds of noises. (He frequently comments on this, and the way I walk--embarrassment) I said to him something about 5 minutes. It seemed right then because of his sexuality, he was closer to wanting plans made about next year. I walked away from him.

With E. He wanted to come over to my room to see some films. As we were sitting in the grill several of his friends came over and asked him if he wanted to do something. He said "No" very quickly with confidence. "I'm going to _____ (Subject 3's name) to watch some films." This made it clear where his priorities lyed (sic).

E. (boyfriend) and I are walking through a mall. As we pass a women's clothes display of summer fashions, the terrycloth outfits remind

me of the one my mother is supposed to send me. I said, "She'll probably just keep it for herself because she wants it."

E. was looking at some of the skimpier outfits and saying how he thought that I'd look good in them. I was kind of ignoring his comments.

We drove home in my van. I can't remember if he drove or I drove, but at one intersection E. had to get out to check the car. I released the hood, thinking he needed to look under there. As it turned out it wasn't necessary, so he closed it. Even though I knew it didn't need to be opened, I released it from the inside again and he had to close it again.

E. was getting impatient, and so were the other cars, but I released it again and told him to close it. He didn't know that I was releasing it from the inside, and I didn't tell him. I just felt like being contrary. It was a kind of a perverseness that made me keep doing it.

I was in a little store that was quite a distance from my home. A middle aged Italian couple ran it. It could only marginally be called a store. I think it was a gas station with a few shelves of food.

I was in there to get something. I didn't have the right amount, so she was going to give me \$10 in pennies for change. She asked me if it was alright. I said that it was. I had a feeling that the pennies were more like real money anyway--as compared with crumpled paper money I held in my hand.

While I was waiting a neighborhood woman came in to buy something. The old Italian man was sitting down at a table. The woman complained good naturedly about the price of the food, and said, "Why do I pay these outlandish prices?" The Italian woman said, "Because it's close." It was true--it was just a matter of convenience! I got my change and left.

Night: 10

Kittens--three litters, I had one, "It gets lonely being a male cat. Peanut butter jar, writing on wall, judiciary, The Raven, traffic M. (female)--not nice, Mrs. L. Marble table, discern about physics, game like checkers and dress, checkers except there was a king and/or a mighty queen. B. (male) wanted to push me off bridge--No, he would.

(All of the above written upon awakening at 6:30am.)

1. I went to talk to Mrs. L. about something, and because my timing was bad I caught her just starting to make dinner. She was standing by the stove stirring something in pots.
2. There was a certain marble table that was low and looked like a checkerboard. It was used in discerning something about physics. It was a game that looked like checkers except for two pieces. There was a kind and a mighty queen; these were taller, but the others were short and smooth. The checkerboard was beige and black.
3. I was in a building. There was a gathering of people for some kind of convention. It seems that we were deciding something. After it was over, (there was a stage where speakers talked) I noticed some writing on the wall in the hallway, as I was leaving. A man came up to me and said that all of those who tried for the student judiciary should show up at a certain meeting. I was confused. I told him I didn't make it. He said it didn't matter, they needed a lot of people to judge a certain case. He was a tall man with short straight dark hair. He made it sound like my civic duty.

As I was leaving I was carrying some things out to the car. I heard a girl and boy talking. As I rounded the corner she said, looking at me, "Now listen carefully to this...!" and started to rehearse some lines very rapidly. As I walked past and left the building, it occurred to me that she was reciting "The Raven."

With every step closer to my car, I wished that I could go back in and show her how to do it right. She was doing such a miserable job of it. I was going to make more than one trip to bring the things into the car. Unfortunately I had carried them all at once, and I now had no excuse to go back into the building.

I really wanted to go back in, and my steps were indecisive, but I gave up and got in my car.

Something was strange about the traffic. I was in D.'s (male) little Mustang. The cars didn't obey the rules that they usually did.

4. There was a peanut butter jar. The lid was punctured and white on the inside. With these holes in it it was used for some kind of strainer. I think water was dripping through the holes.
5. B. (boyfriend's brother) and I were walking across the bridge by the library. Halfway over we stopped to look into the water. Suddenly B. got an idea that he was very enthused about. He said, "Let me push you in." or "Why don't you jump in?"

I said no, that I didn't know how deep it was. The water was black and it was impossible to tell. I thought that it might be quite shallow and rocky. He was confident that there was no danger.

As I stood on the bridge, he ran off and down into the water. He was swimming in the shallow water near the bank, trying to convince me to -ome in.

He said, "He would have done it," as a way to entice me to jump in. But the water was dirty, and I didn't think B. should be swimming, getting it in his mouth.

I said that I didn't care if he did it, I wasn't going to.

I walked off the bridge and onto the grass lawn. My mother was there. I stood looking down at four kittens that I knew were mine. I could see off in the distance where Streisand (my cat) was with another litter of kittens a day younger than this litter. In fact she had had three litters of about four each, within a day of each other.

I could see L. (sister) taking care of Streisand and her kittens. I had to care for these because Streisand rejected them. They would have competed with her second litter.

My mother and I were talking about whether L. would allow the tomcat to mate with Streisand. My mother said that she shouldn't keep the tom out, because "It gets lonely being a male cat."

(All of the above written at 11:00pm that night and intended as a "clarification" of that which was written in the lab.)

Night: 11

There ought to be a Wilson Avenue (but there is?). B.F. (male) gave me a heart shaped box for Valentines Day. It had only a very few pieces of candy. The box itself was very pretty. We were walking out back in a field near the Edison easement. I kind of knew he was going to do this, I forgot to get him a valentine.

Amusement park rides inside a huge building. I was near the entrance to the long rides, way up in the air. No one else was waiting. There were two entrances. One emphasized that no one should go on this ride involuntarily. The enclosure for the ride was spherical, it went upside down and all over. I wasn't even considering riding it.

I was like a camera, I had a view of the ride as someone might have who was able to defy gravity. I was visually with the ride as it went up, but stayed at the peak even as the cars went streaming down their curved path--defined by the outside sphere.

I left this ride and walked around outside the building. I think I was waiting for C. or L. (sisters) to get done riding. I was all alone. I just walked around and around outside the building by myself with my hands in my pockets. I was depressed. It was getting dark.

I heard someone talking, as parents do, that their child only went on two rides after coming all this way. It was a typical complaint. Parents always think they've wasted their time/or money on their kids. In my mind I was defending the kid. Those rides were pretty hairy--two would be plenty.

I don't know how long I had walked around outside, but when I came back in the building, everything had been dismantled and men were cleaning up. I couldn't find whoever I was supposed to be waiting for. They had left without me. I wasn't upset or panicked, I just took it in stride. But I was sad. I would have to walk home in the dark by myself.

My grandmother was down in a greenhouse-like enclosure, talking to a young girl about some plants. There were three jade plants in front of her. She pulled them out of the dirt and pulled some of the leaves off. I was confused by this. Why was she destroying these three plants? They both acted casual, as if they were useless anyway. The girl mentioned something about the fact that they wouldn't grow outdoors in the Winter, and something else about them growing indoors. I thought that it didn't matter, I could still make them grown--even if they weren't ideally suited.

I wanted to collect them up and replant them. I tried to put one back in dirt, but my grandma had ripped them out too harshly. It was no use. Why did she do that?

Night: 12

1°, 3°K-273°, Is not any more sensible. Talking black guy, slush now--freeze later? I was with him last 3 hours.

1. Talking to R.L. (male). He was telling me of things that had happened to him when he was just a week old--that his mother had set him on top of the car. I knew he couldn't really have remembered anything from the time in this life, but I didn't refute what he said. I tried to sound interested. He said he had to go pick up his coach for softball (or baseball). She was a woman who lived halfway down the street.

R. was about 10, but I was wondering if he meant that he was going to pick her up in his car.

He mentioned something about the notes they write all the time to her, thanking her for her time and involvement with them. It sounded like a very mature thing for him to do.

I am walking down my street toward my house with a girl who was younger than me. We are going to school. She is about 3 inches taller, has medium length blond hair that she has in two pony tails by her ears, and bangs. She is a big girl.

We talk about her baseball activities. She tells me that they (The Tigers) always pick girls that have hair like hers. I agreed, I seemed to remember seeing that most of the girls on the Tigers had hair in pony tails.

I said "So that's what you'd like to do then? Be on the Tigers?" She said yes, she would like that, but that she didn't think she'd make it. I tried to reassure her. I said, "Oh, of course you will. You have good looks and...(something else). I'm sure you will make it." I didn't really have that much conviction that she would make it, and she really wasn't even that good looking--but I thought she could use some moral support.

I think she was C.'s (sister) age., one of her friends.

We stopped by my house. Both my sisters came out, ready for school, along with some of her friends. I should have been ready, but I feel like I might have forgotten something. I told them I had to go back in to check.

They objected to this. They tried to convince me that I hadn't forgotten anything. They wanted to go.

In walking up to my front porch I noticed a white credit card shaped thing. I said, "Aha, see I told you I forgot something, here's my I.D.," but when I looked at it, I read that it was S.'s (female) I.D. card. She was one of C.'s friends.

I thought that we'd better take it to her or she wouldn't be able to eat, but they didn't see the need to give her the I.D. back.

2. I was sitting on a ledge-like structure with some guy. This was out in the open somewhere. We were discussing the use of the Kelvin scale as opposed to Celsius or Fahrenheit. We noted that most people rejected the Kelvin because of the -273° definition of 0° . They interpreted this number as ridiculous. We talked about how numbers had to be 10°C or 3° for them to accept it. It was ridiculous that they would not accept Kelvin--it was surely no more or less sensible than C or F.
3. I was standing with a black man out in a small woods. We were talking quite comfortably standing in front of a small cliff or steep hill. We were watching the weather as it rained or snowed.

We should have left to go to our classes, but we didn't. We just stood and talked for what must have been three hours.

It was slushy out and the man was concerned about this being bad to travel in. I told him it was getting colder, and that it would be worse after it froze. He realized this was true and we agreed to start off on our ways, finally.

I hadn't gotten very far when I heard other men's voices. They were questioning the man accusingly. They believed him suspect of perpetrating some crime--perhaps murdering a man.

When I heard this I went back to tell the men that I could account for the man's last three hours. This was a risky thing for me to do, to become involved but I had to see the man get a fair chance. My protestations seemed to have some validity to them.