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Identifying Types of Impactful Dreams: A Replication

Ria Businkk[1] and Don Kuiken, Ph.D.[1,2]

In an attempt to replicate a classificatory study reported by Kuiken and Sikora (1993), thirty-six men and women reported a dream that was as impactful as their most impactful dream during the preceding month and then the first dream that they recalled at least four days later. Cluster analysis revealed five classes of dreams, each with a characteristic profile of emotions and feelings, goals and concerns, movement styles, sensory phenomena, self-reflectiveness, and dream endings. Four of these classes substantially correspond to the dream types identified in the original study: existential dreams (distressing dreams concerned with separation and personal integrity), anxiety dreams (frightening dreams concerned with threats to physical well-being), transcendent dreams (ecstatic dreams concerned with magical accomplishments), and mundane (unimpactful) dreams. A fifth class of moderately impactful dreams, new to this study and referred to as alienation dreams, expressed emotional agitation and concerns about interpersonal efficacy.

KEY WORDS: dreams; impactful dreams; emotion and dreams; self-reflectiveness.

INTRODUCTION

There have been virtually no classificatory dream studies comparable to biologists' articulation of species differences or to literary scholars' characterization of literary genres (Kuiken, 1991). So, we still lack a heuristically rich vocabulary for referring to different types of dreams. The reasons include some investigators' continued adherence to the positivistic notion that classification is "merely" descriptive whereas causal explanation is genuine achievement (Kuiken, Wild, & Schopflocher, 1992). And yet, the devaluation of classificatory studies also has been sustained in post-positivist discussions. Contemporary investigators often regard taxonomies as reflections of ethnocentric social conventions and interests. Paradoxically perhaps, the notion that taxonomies—including dream taxonomies—are historically relative constructions perpetuates positivistic pessimism about classificatory efforts.

[1]Department of Psychology, University of Alberta, Edmonton, Alberta, Canada.
[2]Correspondence should be directed to Don Kuiken, Department of Psychology, University of Alberta, Edmonton, AB, Canada, T6G 2E9.

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Although neither positivist nor constructivist pessimism is without point, the present report is an attempt to counter those traditional misgivings in one research area: the study of impactful dreams, i.e., dreams that noticeably influence thoughts and feelings even after awakening. After reviewing several conceptual issues affecting classificatory studies, we will present detailed results of an investigation that replicates an earlier attempt to identify types of impactful dreams (Kuiken & Sikora, 1993). Substantial agreement between the results of the present and the earlier studies justifies further consideration of the classificatory methods used here, as well as the resulting typology.

A Rationale for Classificatory Studies of Dreams

In many investigations, the homogeneity of dream form and function is deliberately—and perhaps appropriately—taken for granted. However, the terminological and conceptual diversity in discussions of impactful dreams (e.g., nightmares, titanic dreams, retrieval dreams, archetypal dreams, prophetic dreams, lucid dreams, reality dreams, etc.) is testimony that homogeneity of form and function in this domain cannot be safely presumed. If so, classificatory studies may contribute to clarification and refinement of the distinctions among impactful dreams.

But, how would we recognize whether clarification or refinement has been provided by any given classificatory effort? In a long tradition that is largely invisible outside of biology and philosophy, there has been turbulent discussion of whether some classifications are better because they are "natural". To the extent that "natural kinds" implied explanatory reduction of phenotypes to biologically conceived genotypes, they were at once appealing to positivists and anathema to those who would resist biologically reductionist characterizations of higher-order phenomena. However, biological reducibility was only one of several objectives proposed for classificatory studies, and the discussion of natural classes has helped to articulate the objectives of classificatory studies in a way that transcends this controversy. Reconsideration of dream studies in light of these other objectives will help to anticipate some aspects of the research described in the present report.

One argument (cf. Sneath & Sokal, 1973) is that a classification is natural to the extent that it is polythetic rather than monothetic. That is, rather than depending upon a single, essential diagnostic attribute, natural classification maximizes the number of attributes shared by members of a class and the extent to which each attribute is characteristic of that class. This argument acknowledges that attempts to find discrete diagnostic attributes for a particular class often lead to inconsistencies. In biological systematics, for example, monothetic classifications (e.g., identifying vertebrates by the presence of red blood corpuscles) can become inconsistent when an organism that happens to be aberrant on the single defining feature (e.g., a fish without red corpuscles) is moved to a "distant" class (e.g., invertebrates) even though it is identical in almost all other respects to organisms in a "nearer" class (e.g., other fish). Polythetic classes minimize such inconsistencies because class membership is based upon overall resemblances rather than upon discrete, essential attributes.

In dream studies, the polythetic objective is insufficiently appreciated; monothetic classes (usually implicitly) are commonplace. Lucid dreams, for example, constitute a monothetic type, since they depend upon a single diagnostic attribute with (at best) unknown relationships to other dream attributes. Even nightmares constitute a monothetic class when they are defined simply in terms of sleep-disturbing dream affect. In his taxonomic efforts, Hunt (1989) seems sensitive to these limitations, indicating that lucidity and nightmarishly disturbing affect can be attributes of any type of impactful dream. However, he does not acknowledge that the limitations of monothetic classification might also jeopardize other aspects of his dream typology (e.g., the visual-spatial metaphoricity by which he characterizes archetypal dreams).

But the justification for natural classes goes farther than this. A second argument, supplementary to the first, is that a classification is natural when the numerous attributes that constitute each class involve coherent patterns across different levels of individuation. This argument acknowledges that it may be possible to identify classes that have *general* utility because they cohere across *several* levels of analysis. For example, in biological systematics, a species might be characterized by the coincidence of attributes that involve tissue structure (e.g., a hard calcareous compound constituting skeletal bone), skeletal structure (e.g., a multiply jointed leg/foot structure that allows walking on inclines), sensory receptors (e.g., a visual system specialized for depth perception while mobile), and habitat (e.g., a dry irregular terrain). Classifications that cohere across several levels of individuation have the advantage of transcending narrow disciplinary or utilitarian objectives.

In dream studies, classification across levels of individuation has been given only limited consideration. For example, distinctions between nightmares and sleep terrors are based partly on reported dream experience and partly on physiologically defined sleep stages: nightmares are narratively complex and frightening dreams that occur during REM sleep, while sleep terrors are narratively simple and frightening dreams that occur during NREM stages 3 and 4 (The International Classification of Sleep Disorders, 1990). But, levels of individuation in other taxonomic proposals have hardly been explored. Moreover, it is seldom considered that attribute patterns across different levels of *experiential* individuation also may contribute to classificatory coherence. For example, descriptions of archetypal dreams may cohere across levels of analysis that involve representational modality (e.g., visual-spatial metaphoricity), narrative theme (e.g., magical accomplishments), dominant affect (e.g., ecstasy, awe), etc. Classifications that accentuate one level of analysis (e.g., visual-spatial metaphoricity) at the expense of others risk becoming narrowly rather than generally useful.

Identifying Natural Classes of Impactful Dreams

Kuiken and Sikora (1993) reported a study designed to identify natural classes of impactful dreams. Their study was quantitative, relying on cluster analytic techniques to maximize the number of attributes shared by members of a class and the extent to which each attribute was characteristic of that class. Also, their study was

phenomenological, relying on meanings expressed at several different experiential levels of analysis, including: variations in emotional tone, goals and concerns, movement styles, sensory phenomena, self-reflectiveness, and dream endings. Moreover, using procedures introduced by Kuiken, Schopflocher, and Wild (1989), similarly expressed meanings were identified through systematic comparison of the dream reports within their sample (e.g., comparison of narrator perspective in each dream), rather than according to *a priori* conceptions. The presence or absence of these similarly expressed meanings was used to create matrices that, when cluster analyzed, provided classes whose members shared a substantial number of experiential features, but in which no single feature was necessary or sufficient for class membership.

Three of the four classes identified in this way included different types of impactful dreams. One type, referred to as "anxiety dreams" and resembling published accounts of nightmares (cf. Hartmann, 1984), involved intense fear, vigorous activity, repeated avoidance of harm, and dream endings marked by fearful vigilance that persisted even after awakening. A second type, referred to as "transcendent dreams" and resembling accounts of archetypal dreams (cf. Kluger, 1975), was marked by feelings of ecstasy and awe, graceful and vigorous movement, magical accomplishments, and enhanced awareness of spiritual possibilities. A third type, referred to as "existential dreams" and not clearly represented in previous literature, involved feelings of agony and discouragement, separation and rejection, ineffectual movement, and the emergence of feelings the dreamer had been reluctant to acknowledge. A fourth cluster included mundane dreams, which were characterized by the *absence* of many of the qualities that defined the three types of impactful dreams.

The Kuiken and Sikora (1993) study provided preliminary empirical evidence for the existence of three classes of impactful dreams with qualitatively distinct profiles of attributes. The present study was an attempt to replicate and modestly extend their original findings. The primary goal was to assess the stability of the identified dream types and attribute profiles. However, we also wanted to challenge the original typology by including a slightly broader range of dreams. Thus, whereas participants in the original study reported the first "very" or "extremely" impactful dream occurring during a four week period, those in the present study reported the first "moderately", "very", or "extremely" impactful dream that occurred during a comparable period.

METHOD

Participants

Thirty-six women and 15 men between the ages of 18 and 45 volunteered in response to posters placed on bulletin boards at various campus locations. To be eligible for participation, volunteers had to remember at least one dream per week. So that we would not complicate ongoing treatment, two volunteers were excluded from participation because an initial interview revealed that they were undergoing,

or had recently undergone, counseling or psychotherapy for distressing personal problems. Also, thirteen participants failed to report an impactful dream during the study period, resulting in a final sample of 26 women and 10 men. This diverse sample of dreamers included housewives, artists, mental health professionals, university instructors, secretaries, and about 12 university students.

This study, as well as the original by Kuiken and Sikora, required participants to monitor their dreams at home for up to four or five weeks. Participants were individually introduced to the procedures for monitoring and recording their dreams during a brief introductory session.

Procedures

Participants were asked to monitor any dreams that they recalled until they experienced one that was considered impactful according to preset criteria. Participants first rated their dream on each of 12 items, including: (a) "After my dream, I was sensitive to aspects of reality that I typically ignore"; (b) "My dream influenced my mood after I awoke"; (c) "After my dream, I felt like contacting a person that I dreamed about, visiting a place that I dreamed about, or doing something that I dreamed about"; etc. These items were rated on a 5-point scale where "1" was not at all impactful, "3" was moderately impactful (i.e., "comparable to the most impactful dream of the past month") and "5" was "extremely impactful (i.e., "comparable to the most impactful dream you have ever had"). A dream was judged impactful if, on at least two of the twelve criteria, it was rated 3 or higher.

As soon as possible after awakening, participants provided a full account of the identified impactful dream by telephone to an answering machine in the laboratory. Immediately afterwards, participants completed the Morning Questionnaire. Then they selected the segment of the dream that "felt most important" and rated their feelings during this segment on the Emotions Check List.

Participants similarly reported and rated the first dream they recalled four or more days after their impactful one, regardless of its rated impact. Thus, each participant contributed two dreams, an impactful dream and the first one recalled at least four days later.

Materials

The Morning Questionnaire (MQ) consisted of 48 items designed to assess the occurrence of dream features not always described in open-ended dream reports. Sample items include: (a) "My own actions seemed somehow strange or unfamiliar within the dream"; (b) "In your dream, did you ever feel exceptionally well balanced or graceful during your movements (e.g., you were gliding or flying?)"; and (c) "Within your dream, did you have a distinct sense of where you were?" Participants rated questionnaire items on a 5-point scale (1 = not at all; 5 = extremely), and space was provided for open-ended elaboration of their answers.

The Emotions Check List (ECL) included a list of 43 feeling descriptors (e.g., joyful, confused, angry, anxious, guilty) taken from the Differential Emotions Scale

(Izard, Dougherty, Bloxom, & Kotsch, 1977) and from the Profile of Moods Scale (McNair, Lorr, & Droppleman, 1971). On a 5-point scale (1 = Not at all; 5 = Extremely), participants rated how accurately each word described their feelings during the most significant event within the dream.

RESULTS

Seventy-two dream reports were transcribed and analyzed for the presence of those 12 expressed meanings that had contributed most to the classification of impactful dreams in the Kuiken and Sikora (1993) study (e.g., descriptions in the open-ended dream reports of sudden scene shifts, attempts to avoid harm, etc.). A variable (called a dream constituent) was assigned the value "1" for each protocol in which a particular expressed meaning (e.g., a sudden scene shift) was present and the value "0" if it was not, creating an array of 12 binary variables for each report.

Binary variables also were derived from the MQ and the ECL, as follows. First, an item had to be rated 2 (minimally present) or higher in at least 10 percent of the sample of 72 dreams to be included in the final array of attributes. (This step minimized the number of attributes that were so infrequent that they would be uncommon even in the class with which they were most frequently associated.) The 88 attributes meeting this criterion were then expressed in binary form: ratings higher than the median-plus-one were assigned the value "1" and ratings at or below that value were assigned a "0". Combining the dream constituents and dream questionnaire variables resulted in a matrix of the order 100 (binary properties) by 72 (dream protocols). This matrix was submitted to cluster analysis using Ward's method with Euclidean distances.

The analysis provided five distinct clusters consisting of 10, 12, 11, 12, and 27 members. Because of the disproportionate number of women in this sample, we examined the distribution of these clusters across the sexes. Chi-squared analyses indicated that the distribution of cluster membership for men was not significantly different than for women. Also, because we were interested in differences among dreams rather than among dreamers, we examined how frequently both dreams provided by a single dreamer joined the same cluster. Twenty-five per cent of the participants reported two dreams that joined the same cluster, whereas eight per cent would be expected to do so by chance. Thus, although the differences between dream classes are primarily due to dream type, to a limited extent they are confounded with stable differences in the personality traits or life circumstances of these dreamers.

The attributes differentiating these clusters of dreams were assessed by using one-way analyses of variance to clarify which attributes were more-or-less characteristic of each cluster. Fisher's LSD tests of *post hoc* comparisons ($p < .10$) provided a criterion for determining which attributes were characteristic of any given cluster. Unless otherwise noted, in order for an item to be regarded as characteristic of a cluster, it had to differentiate its cluster from at least two of the other four. The characteristic attributes of each cluster are summarized in Tables 1-5 and dis-

cussed in detail in the following sections. To make the results more concrete, synopses of prototypic dreams also are presented.

Cluster I: Existential Dreams

Dreams in Cluster I quite clearly resembled those that Kuiken and Sikora referred to as existential dreams. Therefore, presentation of the results will highlight similarities (and differences) between the original and the present profiles of characteristic attributes for that dream type.

Agonizing Distress. As in the original study, existential dreams in the present one provided a distinctive pattern of distressing feelings (see Table 1, Part A), including: discouragement, agony, guilt, anger, and, to some extent, fear. However, in the present study only, sadness and, to some extent, disgust and confusion also were reported. One dreamer, for example, was "upset" and "very confused" because she had somehow missed her son's entire grade two year, while another felt "hurt inside" because her boyfriend was not standing up for her as he had promised.

Dreams in this cluster were almost always emotionally intense, more consistently so than dreams in any other cluster. Since, in the original study, anxiety dreams were most consistently emotionally intense, the *profile* of distressing feelings and not their intensity most clearly characterizes existential dreams.

Separation and Loss. As in the Kuiken and Sikora study, distress in these dreams was consistently embedded in dream narratives that involved separation and rejection (see Table 1, Part B). And, as before, this theme was echoed by the occasional presence of dream figures who actually were deceased. However, some existential dreamers in the present study also reported that they could "sense the presence of a spiritual being", whereas this was only characteristic of transcendent dreamers in the original investigation.

Bodily Felt Ineffectuality. Dreams in this cluster were distinguished by salient bodily feelings (see Table 1, Part C). As in the original study, dreamers rated their bodily feelings as "strong and clear", referring in their comments to "very definite" and "very clear" physically felt emotions. And, as before, dream reports frequently included references to kinesthesia, i.e., an explicit sense of body position or movement. For example, one dreamer, carefully watching for someone she wanted to avoid, reported, "My head kept going from side to side".

Also replicated was the movement ineffectuality that seems to accentuate the feeling tone of existential dreams. Dreamers reported feelings of fatigue and of being "weak or unable to move". One dreamer, for example, severely distressed by his brother's callousness, stated explicitly that he felt "really tired". It should be emphasized that such movement ineffectuality was not accompanied by the inability to attain one's goals, as had been the case in the Kuiken and Sikora study. This suggests that *feelings* of ineffectuality, and not explicit failures to achieve dream objectives, are the markers of existential dreams.

Sensory Vividness. As in the Kuiken and Sikora study, existential dreams were very vivid, with clear sounds (e.g., "I could hear [him] a block away and he was not yelling") and light/dark contrasts (e.g., "very white ice/snow and a dark stormy

Table 1. Cluster I: Existential Dreams (N = 10)

	Cluster Number				
	I	II	III	IV	V
Part A: Feelings and Emotions					
Discouragement (ECL)	**.90**	.17*	.00*	.08*	.33*
Sad (ECL)	**.80**	.17*	.09*	.08*	.59
Downhearted (ECL)	**.80**	.00*	.00*	.08*	.30*
Agony (ECL)	**.70**	.50	.09*	.00*	.33*
Guilty (ECL)	**.70**	.17*	.18*	.08*	.30*
Angry (ECL)	**.70**	.17*	.09*	.00*	.44
Confused (ECL)	**.60**	.08*	.00*	.08*	.11*
Disgusted (ECL)	**.60**	.17*	.09*	.00*	.22*
Afraid (ECL)	**.70**	.92	.09*	.08*	.15*
Affective intensity (MQ)	**.90**	.67*	.00*	.00*	.26*
Part B: Concerns and Goals					
Separation and rejection (D)	**.70**	.50	.27*	.00*	.93
Deceased persons (MQ)	**.20**	.00*	.09	.00*	.04
Spiritual beings (MQ)	**.50**	.17*	.09*	.00*	.11*
Part C: Movement Style					
Clear bodily feelings (MQ)	**.60**	.33	.09*	.00*	.33
Kinesthesia (D)	**.60**	.50	.27*	.17*	.59
Weak or unable to move (MQ)	**.40**	.58	.00*	.00*	.22
Fatigue (ECL)	**.40**	.07*	.00*	.17	.15
Part D: Sensory Events					
Vivid sounds (MQ)	**.50**	.42	.18*	.08*	.15*
Contrast light and dark (MQ)	**.70**	.25*	.27*	.08*	.33*
Sensations of touch (MQ)	**.50**	.17*	.36	.17*	.26
Others physically present (MQ)	**.90**	.58	.55	.33*	.52*
Part E: Dreamer Perspective					
External self-observation (MQ)	**.60**	.50	.36	.08*	.37
Own actions strange (MQ)	**.70**	.17*	.18*	.17*	.33*
Amazed (ECL)	**.60**	.17*	.27*	.17*	.07*
Assertion of Control (MQ)	**.40**	.25	.09*	.08*	.15*
Part F: Dream Ending					
Intense affect at ending (D)	**.40**	.50	.00*	.08*	.11*
Real after awakening (MQ)	**.70**	.50	.27*	.00*	.22*

* = Different from Cluster I
ECL = Emotions Checklist
MQ = Morning Questionnaire
D = Dream Constituent
Italics indicate absence

sky") being particularly prominent. But, unlike in the original study, sensations of touch also were characteristic of these dreams. Another finding unique to the present study, but consistent with the preceding indications of dream vividness, was that other beings were "so clear and distinct that they seemed physically present within the dream".

Emergent Self-Awareness. As in the original study, most existential dreamers reported that they became aware of themselves "as if from the outside", also noting

that their own actions within the dream seemed "strange and unfamiliar" (see Table 1, Part E). A careful rereading of the dream reports indicated that these moments of self-awareness were often unsettling. For example, a dreamer who in her dream had killed a man with her car simply could not believe that she had simply denied the event when it originally occurred. Such incredulous self-reflection during the dream may be indirectly evident in these dreamers' ratings of amazement, although the dreamers themselves were not always the focus of these ratings. For example, one person, whose inappropriately nonchalant brother was a suspect in the death of a goalie in a soccer game "just couldn't believe what was going on".

In the Kuiken and Sikora study, shifts in feelings frequently were observed in existential dreams. Such shifts also occurred in the present study but perhaps in a slightly different manner. First, as in the original study, dreamers' feelings of distress frequently shifted by becoming noticeably accentuated and more intense during dream endings (see below). For example, one dreamer, already "very emotional", said that "all of a sudden [he] just started crying completely". Second, unlike in the original study, dreamers in the present one occasionally seemed able to assert control over disturbing dream events, and this, too, was accompanied by feeling shifts—but more positive ones. For example, one participant described her initial "fear of [a kitten] and of [its] dirt and disease", but she decided to "let her close", precipitating a transformation of feeling through which the dreamer realized "how much [she] truly loved her".

Intensely Real Dream Endings. As Kuiken and Sikora also found, existential dreams regularly culminated in affectively intense dream endings (see Table 1, Part F). For example, the woman who dreamed she had killed someone with her car became "so upset that [she] awakened". And, as in the original study, dreamers reported that features of their dreams seemed "real" immediately after they awakened. One said, "I had to think a while to realize it was a dream", and another commented, "I thought I was still on the waterfront [when I woke up]". Thus, although enactment of dream actions during awakening did not characterize these dreams as it had in the original study, a compelling and lingering sense of involvement in dream reality was evident nonetheless.

Replication Summary. In sum, the replicable aspects of existential dreaming include (1) a pattern of dream distress, especially discouragement, agony, guilt, and anger; (2) themes concerning separation and loss, including the presence of persons who actually are deceased; (3) clear and strong feelings related to body position and movement, frequently involving movement ineffectuality; (4) vivid sensory phenomena, including clear sounds and light/dark contrasts; (5) emerging self-awareness (especially of the dreamer's own actions) and distinct feeling shifts; and (6) affectively intense dream endings, resulting in a sense of the dream's continuing "reality" even after awakening.

A Prototypic Existential Dream. For the present purposes, a prototypic dream is one that minimizes the Euclidian distance between its profile of attributes and the average profile for all cluster members. In a prototypic dream for Cluster I, the dreamer reported driving home in her car after having one or two beers with a good friend at a pub. She "felt a bump" when she parked, but "didn't really think twice about it" and went to sleep in her room. She "woke up to neighbors

saying that [she] had killed someone, that [she] had hit someone the previous evening". Then she found herself in a "really small room", "the police came to get [her]", and she was "extremely upset...crying and crying, and [she] didn't know what was going to happen". The dreamer said that a friend "who was with [her] at the time" had told her then "that...[she] had hit something and [that] she was just denying it." Later the dreamer "realized [that she] had known all along...it was true". She was awakened by extreme distress at her lack of "compassion for the person [she] hit" and at her "total self-centeredness".

Cluster II: Anxiety Dreams

The attributes that differentiated Cluster II (see Table 2) substantially reproduce the attributes of anxiety dreams in the Kuiken and Sikora study.

Intense Fear. As in the earlier study, anxiety dreams were distinguished by their affective intensity, in particular by agonizing fear (see Table 2, Part A). In their own words, these dreamers reported feeling "intensely panicked and afraid", "very

Table 2. Cluster II: Anxiety Dreams (N = 12)

	Cluster Number				
	I	II	III	IV	V
Part A: Feelings and Emotions					
Affective Intensity (MQ)	.90	**.67**	.00*	.00*	.26*
Afraid (ECL)	.70	**.92**	.09*	.08*	.15*
Agony (ECL)	.70	**.50**	.09*	.00*	.33
Part B: Concerns and Goals					
Inevitability of own death (MQ)	.20*	**.58**	.00*	.33*	.04*
Part C: Movement Style					
Awkward or off balance (MQ)	.30	**.42**	.09*	.08*	.11
Weak or unable to move (MQ)	.40	**.58**	.00*	.00*	.22
Vigorous physical activity (MQ)	.30	**.50**	.64	.08*	.22*
Part D: Sensory Events					
Vivid sounds (MQ)	.50	**.42**	.18	.08*	.15*
Felt presence of another (MQ)	.20*	**.50**	.18*	.08*	.22*
Physical metamorphosis (D)	.00*	**.25**	.00*	.00*	.04*
Part E: Dreamer Perspective					
Own actions strange (MQ)	.70*	**.17**	.18	.17	.33
Part F: Dream Ending					
Intense affect at ending (D)	.40	**.50**	.00*	.08*	.11*
Affect precipitates awakening (D)	.20	**.33**	.00*	.08*	.07*
Persistence of affect (D)	.00*	**.33**	.00*	.00*	.07*
Real after awakening (MQ)	.70	**.50**	.27	.00*	.22*

* = Different from Cluster II
ECL = Emotions Checklist
MQ = Morning Questionnaire
D = Dream Constituent
Italics indicate absence

intense terror", and "highly agitated". Although fear also was in the affective profile of existential dreams, in anxiety dreams it is the predominant emotional attribute.

Avoidance of Harm. As found by Kuiken and Sikora, fear in the present cluster of anxiety dreams primarily was precipitated by threats to the dreamer's physical survival (see Table 2, Part B). For example, one dreamer experienced a metal dog leaping at his head and wanting "to rip [his] throat out". However, there were a few dreams in which the physical survival of others also was at stake, such as when one dreamer was overwhelmed because he was the "link between life and death" for drowning children. Close rereading of these dreams suggested that, in contrast to the existential dreams, the intensity of feeling in these anxiety dreams was not evoked by people familiar to the dreamer (e.g, family members, lovers), but very consistently by unfamiliar figures or objects (e.g., unknown drug dealers, bizarre clowns, clusters of suspended live wires).

Immobilization and Activity. Anxiety dreams in the present study manifested the same incongruity between immobilization and active assertion that was observed by Kuiken and Sikora (see Table 2, Part C). Sometimes movement was awkward (e.g., "movement...was difficult") or ineffectual (e.g., "frozen with panic") as dreamers tried to avoid life-threatening events. At other times, occasionally within the same dream, dreamers reported vigorous physical activity (e.g., "running to get to the accident scene" or "swimming to save the children").

Environmental Vigilance. As in the original study, anxiety dreams were marked by vivid sensory impressions of environmental threats (see Table 2, Part D). As before, these included unusual auditory phenomena (e.g., "a metallic throb or humming" that "kept getting louder and louder", "nails scraping against the glass"). Also, as before, these anxiety dreams included frequent physical metamorphoses of dream objects or figures, although the absolute frequency of these transformations was somewhat lower in the present study. Like the auditory phenomena, these visual transformations seemed closely related to threatening circumstances in the dream environment. For example, one dreamer described how a "real big silver metal greyhound" suddenly "came to life and...was coming after me with its teeth bared". Another dreamer watched as the "blade [of a knife] seemed to grow" as his assailant drew closer.

In contrast to the Kuiken and Sikora study, anxiety dreams in the present study did not include olfactory sensations or explicit erotic feelings. Also in contrast to the original report, an attribute of anxiety dreams was the "felt presence of another" without a clear sense of "what the other looked like". Rereading the dream protocols revealed that the felt presence of this "other" typically was not threatening but reassuring (e.g., "a warm presence", a "trusted [but unknown] friend").

Unreflective Self-participation. Unlike existential dreams, anxiety dreams involved few instances in which dreamers indicated that their actions within the dream seemed "strange and unfamiliar" (see Table 2, Part E). On the other hand, external self-observation was no less likely in anxiety dreams than in existential dreams. These observations only partially replicate the Kuiken and Sikora finding that anxiety dreams present largely unreflective participation in vitally engaging dream actions.

Fear-Induced Awakening. In two respects, the dream endings in this cluster resemble those of anxiety dreams in the Kuiken and Sikora study. First, these dreams provided emotionally intense endings, so much so that affect was frequently presented as the cause for awakening. For example, the dreamer who was attacked by a metal dog reported: "I felt intense panic at the moment the dog came to life and leaped at me...and that's when I woke up very scared". Second, like existential dreams, anxiety dreams were marked by a sense of reality that persisted even after waking, with particular emphasis upon lingering fear. The dreamer attacked by the metal dog wrote: "I had a few moments of real fear before I realized it was a dream and there was no metal monster wanting me dead". Another dreamer described himself as "wanting to find out if any of it had really happened", repeatedly "checking out the windows (and checking the locks) because I almost expected the [killer] clown to appear".

Replication Summary. In sum, replicable aspects of anxiety dreams include (1) intense fear; (2) vivid impressions of life-threatening circumstances; (3) movement ineffectuality, alternating with vigorous physical activity; (4) unusual auditory phenomena and physical metamorphoses; (5) relatively limited awareness of the strangeness of one's own actions; and (6) affectively intense dream endings, often precipitating wakefulness, with continuing vigilance about the dream's frightening "reality".

A Prototypic Anxiety Dream. In a prototypic dream for Cluster II, the dreamer was walking across a wooden bridge when he noticed several people standing in the water, looking down They said that three small children had fallen into the water, but they weren't doing anything about it. So the dreamer pulled off his shoes and dove in. He swam down "about 20 feet into the water, where there were weeds and sand and dirt and three children... [who] appeared to be dead". The dreamer was overwhelmed by "the sense of urgency of the dying children". He grabbed one, swam back to the surface, threw her on the bank and "hit her on the chest two or three times and she rolled over and vomited". Then he "swam back to the bottom again and grabbed a second child...by the arm" and started swimming back to the surface. Halfway back, he lost the child's arm, "grabbed him by the hair", got him to the top and "gave him mouth to mouth resuscitation". While he was struggling to save the children, he "was very concerned about [their] mother" and "[his] mind kept flashing back to this mother and...having to tell her that her children were dead". When he managed to get the last child to the surface, he was "very concerned" that it was "going to be mentally retarded because of brain damage from lack of oxygen", and it was "going to be so terrible for the mother to have a brain damaged child." The dreamer continued to be "worried about the mother after [he] woke up".

Cluster III: Transcendent Dreams

The attributes that differentiated Cluster III dreams (see Table 3) largely corresponded to those that characterized transcendent dreams in the Kuiken and Sikora study.

Ecstasy and Awe. In contrast to all other clusters, the transcendent dreams in the present study were marked by feelings of joy, delight, ecstasy, and awe (see

Table 3. Cluster III: Transcendent Dreams (N = 11)

	Cluster Number				
	I	II	III	IV	V
Part A: Feelings and Emotions					
Joyful (ECL)	.20*	.00*	**.73**	.25*	.04*
Delighted (ECL)	.10*	.17*	**.73**	.25*	.00*
Ecstasy (ECL)	.10*	.00*	**.55**	.00*	.04*
Awe (ECL)	.20	.25	**.46**	.08*	.04*
Affective Intensity (MQ)	.90*	.67*	**.00**	.00*	.26*
Part B: Concerns and Goals					
Goal Attainment (MQ)	.10*	.25	**.46**	.08*	.04*
Magical Abilities (D)	.20	.00*	**.36**	.00*	.00*
Part C: Movement Style					
Vigorous physical activity (MQ)	.30*	.50	**.64**	.08*	.22*
Vigor (ECL)	.20*	.25*	**.91**	.00*	.19*
Energetic (ECL)	.00*	.25*	**.55**	.00*	.15*
Lively (ECL)	.10*	.17*	**1.00**	.08*	.11*
Graceful and balanced (MQ)	.30*	.17*	**.64**	.17*	.22*
Felt bodily vitality (MQ)	.10*	.33*	**.73**	.00*	.19*
Weak or unable to move (MQ)	.40*	.58*	**.00**	.00	.22
Part D: Sensory Events					
Spreading warmth (MQ)	.10	.00*	**.27**	.00*	.07
Floating feelings (MQ)	.10*	.00*	**.55**	.17*	.04*
Part E: Dreamer Perspective					
External self-observation (MQ)	.60	.50	**.36**	.08	.37
Part F: Dream Ending					
Intense affect at ending (D)	.40*	.50*	**.00**	.08	.11

* = Different from Cluster III
ECL = Emotions Checklist
MQ = Morning Questionnaire
D = Dream Constituent
Italics indicate absence

Table 3, Part A). Of these, ecstasy and awe also were characteristic of transcendent dreams in the Kuiken and Sikora study. Also, as in the original study, these positive feelings were not as intense as the negative feelings reported in the existential or anxiety dreams. Again, the profile of emotional attributes, rather than their intensity, was the differentiating characteristic.

Magical Abilities and Goal Attainment. As in the original study, ecstasy and awe were associated with goal achievement resulting from unusual—even magical—abilities (see Table 3, Part B). For example, one dreamer, in the last stages of pregnancy and riding on her three-speed bicycle, effortlessly passed 50 other cyclists in a race, all of them on state-of-the-art racing bikes. Another dreamer, using blue food coloring, devised a laser tool that was instrumental in helping another woman survive life-threatening surgery. A third, attempting to save a nephew who had "disappeared under the water", became a "superhuman swimmer", able to "move ten feet in one stroke".

Graceful and Vigorous Movements. In keeping with these remarkable abilities, transcendent dreamers also reported unusual feelings of energy and vitality (see Table 3, Part C). As in the Kuiken and Sikora study, dreamer actions were exceptionally vigorous, energetic, and lively, although graceful and balanced. In the words of one MQ item, dreamers felt "vital, energetic, and alive". In their own words, one dreamer felt "powerful and lively", another felt "as if [she] could do anything", etc. In these dreams, movement ineffectuality was conspicuous by its absence.

Uplifting Bodily Sensations. Consistent with these movement qualities, dreamers in this cluster reportedly experienced sensations of "spreading warmth", and their activities were so effortless that they felt like they were floating or flying. While both of these sensory qualities replicate Kuiken and Sikora observations, dreamers in the present study did not report the unusual forms of light that were characteristic of transcendent dreams in the original investigation.

Emergent Self-Awareness. Unlike in the Kuiken and Sikora study, these transcendent dreams were not marked by intimations of dreamer self-reflectiveness during dreaming. For example, external self-observation was only slightly more frequent than in mundane dreams (see Table 3, Part E) and less common than within existential dreams (although these differences did not meet our criterion for characteristic attributes).

Dream Endings. As in the Kuiken and Sikora study, transcendent dreams here were no more likely to manifest intense affect during dream endings than were mundane dreams (see Cluster IV, below). Given the ecstasy and joy in that segment of the dream that felt most important, however, relative affective quiescence may have an entirely different basis in transcendent dreams than in mundane dreams. In mudane dreams it may mean the absence of any affect; in transcendent dreams it may mean the absence of turbulent negative affect.

Replication Summary. The consistently distinctive characteristics of transcendent dreams include (1) feelings of ecstasy and awe; (2) magical abilities and the attainment of dream goals; (3) vigorous and energetic, yet graceful and balanced, movements; (4) sensations of spreading warmth and of floating or flying; and (5) relative affective quiescence during dream endings.

A Prototypic Transcendent Dream. In a prototypic dream for this cluster, the dreamer had impulsively decided to join a bicycle race even though she was pregnant and "close to her due date". "Everything was very bright, the woods were very lush and green." All the other riders were in biking gear and riding "18 and 21 speeds", but she was riding a three speed. While the other riders were "going pretty slowly uphill in low gears" she began passing them "easily...in the fitness gear". She approached a van that was parked just outside a town and obscured by lush deciduous trees. When she pulled over and looked in she realized that "this was the end of the race". Opening a pop, the dreamer was "aware of some fatigue and perspiration which felt really good". While she was waiting to accept her prize for winning the race, she watched a boy and girl "who seemed to be suspended in the air, shooting this huge Nerff ball through a giant hoop" mounted high on the side of a tall building. When one of them dropped the ball and it started falling, "the boy sort of dived onto the Nerff ball and landed on top of it

safely on the pavement" below. A man told her the ceremony was to be held at 4 o'clock at the "clock face building", and although there were many buildings with clocks she "figured [she'd] be able to make [her] way there without his direction". At the end of the dream, the dreamer was in the process of calling her husband to let him know "what was going on", that she had won the race and was waiting for her prize.

Cluster IV: Mundane Dreams

Much like those referred to as mundane dreams by Kuiken and Sikora, Cluster IV dreams were characterized by the *absence* of many of the features that were present in the other clusters (see Table 4). They lacked the distress and fear found

Table 4. Cluster IV: Mundane Dreams (N = 12)

	Cluster Number				
	I	II	III	IV	V
Part A: Feelings and Emotions					
Affective Intensity (MQ)	.90*	.67*	.00	**.00**	.26*
Agony (ECL)	.70*	.50*	.09	**.00**	.33*
Sad (ECL)	.80*	.17	.09	**.08**	.59*
Downhearted (ECL)	.80*	.00	.00	**.08**	.30*
Afraid (ECL)	.70*	.92*	.09	**.08**	.15
Angry (ECL)	.70*	.17	.09	**.00**	.44*
Joyful (ECL)	.20	.00	.73*	**.25**	.04
Delighted (ECL)	.10	.17	.73*	**.25**	.00
Part B: Concerns and Goals					
Separation and rejection (D)	.70*	.50*	.27*	**.00**	.93*
Part C: Movement Style					
Weak or unable to move (MQ)	.40*	.58*	.00	**.00**	.22
Vigorous physical activity (MQ)	.30	.50*	.64*	**.08**	.22
Clear bodily feelings (MQ)	.60*	.33*	.09	**.00**	.33*
Kinesthesia (D)	.60*	.50*	.27	**.17**	.59*
Part D: Sensory Events					
Seemed physically present (MQ)	.90*	.58*	.55*	**.33**	.52
Vivid sounds (MQ)	.50*	.42*	.18	**.08**	.15
Explicit looking behavior (D)	.90*	.92*	.89*	**.58**	.91*
Sudden location shifts	.50	.42	.44	**.25**	.36
Part E: Dreamer Perspective					
External self observation (MQ)	.60*	.50*	.36	**.08**	.37*
Part F: Dream Ending					
Intense affect at ending (D)	.40*	.50*	.00	**.08**	.11
Real after awakening (MQ)	.70*	.50*	.27	**.00**	.22

* = Different from Cluster IV
ECL = Emotions Checklist
MQ = Morning Questionnaire
D = Dream Constituent
Italics indicate absence

in existential and anxiety dreams and the ecstasy and awe that distinguished transcendent dreams (see Table 4, Part A). Besides lacking distinctive concerns and goals (see Table 4, Part B), these dreamers experienced neither the movement ineffectuality nor the vigorous activity and clear bodily feelings that characterized other dream types (see Table 4, Part C). And, these dreams were marked neither by the presence of vivid sensory events, by intimations of self-awareness, nor by affectively intense endings (see Table 4, Parts D-F). One dreamer's comment about her own mundane dream might appropriately be applied to most Cluster IV dreams: "Nothing really stood out". As might be expected from these results, reports of mundane dreams were shorter than reports for other dreams types, $F(4,67) = 2.67$, $p < .05$. They were significantly shorter ($M = 292$ words) than reports of existential dreams ($M = 834$ words) and transcendent dreams ($M = 670$ words), and marginally ($p < .08$) shorter than reports of anxiety dreams ($M = 600$).

The absence of one kind of sensory event in mundane dreams is important because it implies the presence of a conceptually important characteristic of all other dream types. Specifically, explicit looking behavior *was* present in *all* types of impactful dreams more frequently than in mundane dreams. And, a similar trend was evident for sudden scene shifts (although it failed to meet our criterion for characteristic attributes). These results partly replicate Kuiken and Sikora observations suggesting that dream correlates of intense REM orienting activity are more consistently present in impactful dreams than in the mundane ones.

A Prototypic Mundane Dream. In a prototypic mundane dream, the dreamer was alone in a dimly lit apartment, apparently involved in some "studies in the sciences". At one point, his father, clad in a new suit, came to visit, and they talked "about a new job [his father] was beginning".

Cluster V: Alienation Dreams

An important contrast with the Kuiken and Sikora study was identification of a fifth cluster of dreams in the present investigation (see Table 5). In some respects, dreams in this new class resemble existential dreams, although there are compelling reasons why they constitute a separate cluster and why we tentatively refer to them as "alienation dreams". First, they expressed a narrower range of emotions than existential dreams. Although they rather consistently reported feelings of distress (e.g., discouragement, sadness, agony, anger), noticeably missing from this profile was guilt (see Table 5, Part A). This contrast with existential dreams assumes particular importance because rereading these dreams suggested that only dreamers in this cluster gave physical expression to the anger they experienced. In one rather extreme example, the dreamer reported "smacking [an obnoxious Englishman's] head and then punching him and then pinching him and then kicking him in the shins". The absence of guilty restraint seems consistent with these dreamers' reported lack of fear and of concern about their own mortality within the dream.

Another superficial similarity to existential dreams was that these dreamers' distress was a response to situations that involved separation and rejection (see Table 5, Part B). But rereading suggested a second concern that, although not for-

Table 5. Cluster V: Alienation Dreams (N = 27)

	Cluster Number				
	I	II	III	IV	V
Part A: Feelings and Emotions					
Discouragement (ECL)	.90*	.17	.00*	.08	**.33**
Sad (ECL)	.80	.17*	.09*	.08*	**.59**
Downhearted (ECL)	.80*	.00*	.00*	.08	**.30**
Agony (ECL)	.70*	.50	.09*	.00*	**.33**
Angry (ECL)	.70	.17*	.09*	.00*	**.44**
Guilty (ECL)	.70*	.17	.18	.08	**.30**
Afraid (ECL)	.70*	.92*	.09	.08	**.15**
Affective Intensity (MQ)	.90*	.67*	.00*	.00*	**.26**
Part B: Concerns and Goals					
Rejection (D)	.70	.50*	.27*	.00*	**.93**
Inevitability of own death (MQ)	.20	.58*	.00	.33*	**.04**
Part C: Movement Style					
Clear bodily feelings (MQ)	.60*	.33	.09	.00*	**.33**
Kinesthesia (D)	.60	.50	.27*	.17*	**.59**
Vigorous physical activity (MQ)	.30	.50*	.64*	.08	**.22**
Part D: Sensory Events					
Part E: Dreamer Perspective					
Shift in feelings (MQ)	.30	.33	.18*	.00*	**.52**
Part F: Dream Ending					

* = Different from Cluster V
ECL = Emotions Checklist
MQ = Morning Questionnaire
D = Dream Constituent
Italics indicate absence

mally assessed in this study, set these dreams apart: interpersonal efficacy. One dreamer wrote of her "pathetic sense of failure" while another reported in the dream narrative, "I felt that I was back to my old self again, and she came out on top". Such concerns about interpersonal efficacy contrast with those about personal integrity in existential dreams.

Despite the absence of distinctive sensory impressions (see Table 5, Part D), it should be emphasized that, just as in existential dreams, bodily feelings were strong and clear and kinesthesia was frequent (see Table 5, Part C). For example, one dreamer experienced "a strange sensation in [her] face [that] at first was a...rushing surge from below, a rising of energy and blood from within me". Moreover, although without intimations of self-reflection (e.g., external self-observation), these dreamers reported distinct shifts in feeling within their dreams. Usually these shifts were in response to somewhat changed situations. For example, one dreamer was enthusiastically exploring a building until she encountered several apparent drug addicts; in these altered circumstances, enthusiasm quickly gave way to fear and discouragement.

A Prototypic Alienation Dream. In a prototypic dream representative of this cluster, the dreamer reported being somewhat nervous about being in her small

hometown at a school reunion. Because her memories of school included "uncertainties about being accepted", she wanted to "not impress people exactly, but at least to handle [herself] with dignity". She joined one group, but it didn't include anyone she particularly wanted to see. "It seemed as if the people [she] wanted to see were always somewhere else, and [she] could never quite find them". There was one group where she felt she would be accepted, but she really wanted to find the "more exclusive group", and when she finally got to the group where she "would have been most accepted, where [she] sort of belonged", it was disbanding. She left the reunion for a while, and when she came back she was delighted to see a man with whom she had been infatuated throughout most of high school. The dreamer had really wanted to see this man, to impress him with her poise and maturity. Shortly, however, she became frustrated because she wasn't "able to get his attention to have sort of a meaningful discussion with him". Moving back into the main room, she was "somewhat hurt and irritated" because the exclusive group she had been hoping to join had left the reunion without telling anyone where they were going. Although she was "hurt by their neglect and wanted to be included in their plans", she did not allow herself to become "vulnerable", or "give up being who she wanted to be". The dreamer decided that it was "not the greatest tragedy in the world" and spent the "rest of the time in [the] small town...trying to do things that were of interest to [her]". She was pleased that she acted "with considerable decisiveness" even though she was frustrated and hurt by the responses of people around her.

Differences in Dream Impact

The 12 items participants rated when selecting an impactful dream also were used to assess the influence of the preceding dream types on waking thoughts and feelings. First, based on factor analyses reported by Kuiken and Sikora (1993), four items were combined to create a scale for assessing significant changes in personal awareness. These items reflect (1) having the dream "influence my mood after I awoke"; (2) becoming sensitive to "aspects of reality that I typically ignore"; (3) being reminded of "events that occurred in my past"; and (4) feeling like "changing the way I live". Scores on this scale differed among the five dream types, $F(4,67) = 5.523, p < .001$, with existential dreams ($M = 3.20$) prompting reliably ($p < .05$) greater shifts in personal insight than the combination of anxiety dreams ($M = 2.46$), transcendent dreams ($M = 2.60$), and mundane dreams ($M = 1.85$). This pattern is identical to that described by Kuiken and Sikora. Moreover, alienation dreams ($M = 3.05$) were not reliably different from existential dreams on this scale.

When asked whether their dreams "gave [them] an artistic idea", there were again differences between dream types, $F(4,67) = 4.33, p < .004$. Although all means were low, indicating infrequent artistic inspiration, existential dreams were higher on this item ($M = 2.00$) than anxiety dreams ($M = 1.00$), transcendent dreams ($M = 1.27$), mundane dreams ($M = 1.50$), or alienation dreams ($M = 1.04$).

Finally, based upon preliminary results from the Kuiken and Sikora study, it was expected that transcendent dreams would motivate stronger endorsement of

the following statement: "My dream reminded me of spiritual possibilities that I seldom recognize or realize in my daily life." There were differences between the dream types on this item, $F(4,67) = 3.96$, $p < .006$. However, existential dreams ($M = 2.50$) prompted stronger endorsement than transcendent dreams ($M = 1.37$), alienation dreams ($M = 1.27$), or mundane dreams ($M = 1.17$). Apparently existential dreams—and not transcendent ones—more frequently included spiritual figures (see above) and provided more frequent spiritual reminders in this study.

DISCUSSION

The present study indicates that the types of impactful dreams identified by Kuiken and Sikora (1993) can be clearly found in a separate sample of dreams. Such stability lends support to the proposal that existential dreams, anxiety dreams, and transcendent dreams are "natural" (multi-leveled, polythetic) classes of impactful dreams. Comparison of this classification with previous classificatory efforts reveals some correspondences—and numerous discrepancies.

First, the replicable components of existential dreams identify a dream type that is largely unacknowledged in the available literature. The kinesthetic sensations, primitive motives, and self-referential metaphors in what Hunt (1989) calls "titanic dreams" might seem comparable, but closer examination contradicts this impression. For example, the flying, falling, and spinning attributed to titanic dreams are not present in existential dreams (although similar sensations are found in transcendent dreams). Also, existential dreams are not characterized by the aggression, sexuality, deformations, or dismemberment that Hunt attributes to titanic dreams. In their self-referential aspects, existential dreams may more nearly resemble what Kohut (1971) refers to as "self-state dreams", although his account is too imprecise to be sure. There is no way to determine, for example, whether self-state dreams include alienation dreams or even anxiety dreams as described in the present report.

Second, the replicable components of anxiety dreams remain consistent with descriptions of nightmares that present fear and the avoidance of harm as their pivotal attributes (cf. Hartmann, 1984). However, caution about equating anxiety dreams with nightmares is warranted. One reason is that a nightmare is sometimes understood as any distressing dream resulting in awakening, an approach that conflates anxiety dreams with the quite different attributes (and consequences) of existential dreams. Also, the present study did not allow examination of the relations between dreaming and sleep architecture that distinguish nightmares from night terrors, although aspects of anxiety dream narratives (e.g., their length) suggest that night terrors were not represented in our sample.

Third, the replicable components of transcendent dreams are reminiscent of those descriptions of "archetypal" dreams that emphasize improbable or impossible events (cf. Kluger, 1975). However, equating transcendent with archetypal dreams does not seem warranted. One reason is that archetypal dreams are often understood as having transpersonal significance, whereas evidence from the present study suggests that transcendent dreams are not especially likely to include spiritual ele-

ments. Moreover, the term "archetypal" suggests questionable aspects of Jungian theory rather than reflecting these dreams' phenomenology. The term "transcendent" somewhat more aptly reflects dream elements that lie beyond material space-time referents (e.g., magical accomplishments), although it, too, carries a complex history of philosophical and religious connotations. Further search for a term that is more faithful to the phenomenology of this dream type seems warranted.

Besides replicating the identification of existential, anxiety, and transcendent dreams, the present study suggests that it may be useful to consider another impactful dream type: alienation dreams. Resembling existential dreams in some respects, these dreams were nonetheless distinguishable by their overtly expressed anger and concern with interpersonal efficacy. That a substantial number (27) of alienation dreams were found in the present sample but not by Kuiken and Sikora (1993) may indicate (a) that these moderately impactful dreams were frequently excluded by the more stringent selection criteria used in the previous study, (b) that some existential dreams observed in the previous study were relatively impactful alienation dreams, and (c) that some of the mundane dreams observed in the previous study were relatively unimpactful alienation dreams. This explanation is consistent with evidence of similar emotional tone and bodily feelings in existential and alienation dreams, and it would explain why so few mundane dreams (12) were found in the present investigation. It will be necessary to replicate and refine our preliminary observations indicating that the interpersonal frustrations of alienation dreams are qualitatively different from the existential dreamers' concerns with personal integrity.

Another important difference between the results of the present study and its predecessor is the locus of reported spiritual dream elements. Kuiken and Sikora found that transcendent dreams sometimes include mysteriously animated figures possessing spiritual significance, but in the present study such spiritual figures were most frequently reported in existential dreams. These contrasting findings highlight one advantage of polythetic over monothetic classificatory strategies. A typology in which the presence of spiritual figures is used to define a monothetic class would produce significant inconsistencies. For instance, the presence of a spiritual figure in an existential dream and the presence of a spiritual figure in a transcendent dream would force these dreams into the same category even though they differed dramatically in almost all other respects. A polythetic conception of existential, transcendent, and anxiety dreams minimizes such inconsistencies.

On the other hand, monothetic classes of dreams may be useful for some specialized purposes. For example, for therapeutic purposes it might be valuable to study frightening dreams, even though fear consistently is an aspect of the emotional profile of existential *and* anxiety dreams. Provided these specialized purposes are kept in perspective (e.g., by recognizing that frightening dreams sometimes involve other feeling qualities), no problems should arise. However, a therapeutic regimen that neglects typological context might very well lead to inconsistencies. For example, a nightmare treatment that simply minimizes "frightening dreams" might simultaneously eliminate the vigilant distress following anxiety dreams *and* the constructive shifts in self-awareness that, according to our evidence, regularly follow existential dreams.

In research settings, it may be as important to study natural classes of dreams as it was for biologists to study clearly identified and intact species. Often the occurrence of a fully articulated dream type—rather than its component attributes—will be the appropriate "dependent variable", much as species emergence is the appropriate "dependent variable" in studies of evolution. In studies of evolution, we would not be trapped by questions like, "Why are some organisms (e.g., canaries and sunflowers) yellow?" Analogously, we should not be trapped by asking, "Why are some dreams (e.g., anxiety and existential dreams) frightening?", when it is more appropriate to be asking about the origins and effects of existential dreams, of anxiety dreams, etc.

Conversely, it may be important to study certain dream attributes with a clear understanding that they are independent of natural classes of dreams. Just as biologists have developed descriptions of photosynthesis that are independent of particular species, it may be appropriate to investigate certain dream attributes independently of particular dream types. For example, although sometimes it is suggested that lucidity and spiritual meanings combine to form a coherent dream pattern, our observations challenge that proposal in two ways. First, as indicated earlier, the presence of spiritual figures and the realization of usually unrecognized spiritual possibilities are sometimes associated with transcendent dreams (Kuiken & Sikora, 1993) and sometimes with existential dreams (the present study). Second, in neither study was lucidity (reportedly being "aware of dreaming while dreaming") associated with a particular dream type, although in the present study lucidity tended, if anything, to be more frequently associated with anxiety dreams (5 of 12) and existential dreams (4 of 10) than with transcendent dreams (1 of 11). Thus, lucidity or spiritual meanings may be associated with several forms of impactful dreaming rather than even partly definitive of a coherent natural class. Investigations of these dream attributes should remain open to the variety of dream types with which they are associated.

It is expected that typologies such as the one proposed here will expand and change. In fact, one advantage of the present classificatory effort is that it may motivate expansion of the levels of individuation at which classificatory questions are asked. One form of expansion would be to examine more clearly the psychobiological substrate of impactful dreams. In the present study, replication of the observation that explicit looking behaviors and (perhaps) sudden scene shifts are characteristic of all types of impactful dreams gives some support to the possibility that the psychobiology of the orienting response provides one level at which these dreams can be analyzed. This possibility, discussed at length by Kuiken and Sikora (1993), is important to distinguish from a reductionistic attempt to offer orienting activity (or any other psychobiological process) as a causal explanation for existential dreams, transcendent dreams, etc. Although reductionistic psychobiological explanations are oversimplifications, articulation of the psychobiological substrate of various dream types could significantly enrich the multileveled search for natural classes.

Another direction for expansion is in the variety of experiential properties used to characterize different dream types. For example, close re-reading of the transcendent dream protocols suggests that they distinctively involve journeys. That is, as Kuiken, *et al.* (1983) found in their comparison of impactful dreams and a se-

lection of Ovid's mythic tales, transcendent dreamers are often explicitly moving from one to another location within the dream environment.. For example, one dreamer was "in a truck...hurtling along a trail", another was "flowing downstream" on a "rushing river", and still another was on a highway passing through some energizing "blue zones of light". Perhaps it would be useful to review the mythopoetic tradition according to which transcendent dreams are hero-journeys in an attempt to articulate this aspect of their narrative structure. In doing so, it also may be important to identify the forms of narrative structure that characterize other types of impactful dreams (cf. States, 1993, p. 83ff).

Finally, it may be useful to expand the dream samples used in classificatory studies in order to describe different types of impactful *and* unimpactful dreams. By examining a slightly more inclusive sample than did Kuiken and Sikora (1993), the present study has taken one step in that direction, apparently resulting in identification of a new dream type (alienation dreams). In future studies, it may be useful to select an even broader array of dreams by sampling from *all* spontaneously recalled dreams—or even by including dreams obtained after experimentally prompted awakenings.

When expanding the scope of dream classificatory studies, it will be important to remain alert to several fundamental issues. First, systematic sampling of properties not always reported in open-ended dream protocols will be necessary for reliable dream classification. In the present study, for example, questionnaire assessment of numerous experiential (e.g., affective) properties probably made relatively complete replication possible. Second, caution will be required to avoid prejudice concerning either the universality or cultural relativity of natural dream classes. While gathering detailed demographic information (e.g., ethnic or religious background) in the present study would have allowed preliminary exploration of this issue, appropriately designed developmental and cross-cultural classificatory studies are required to clarify the extent to which dream types are a heritable or a cultural endowment. Third, as the results of additional classificatory studies become available, it will become necessary to reconsider the terminology used to refer to various dream types. The typological language in the two studies emphasized here was deliberately chosen to challenge some traditional frames of reference. The phrase "existential dream" does seem apt for this relatively infrequently acknowledged dream type, but "anxiety dream" and "transcendent dream" were phrases chosen because there are some subtle differences in their typological import that might otherwise be ignored. However, these phrases will almost certainly require revision (or rejection) as our conceptions of these types are refined. Hopefully, dream researchers will resolve these issues by reference to empirical findings from carefully conducted studies of the variety of dream experiences.

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