

The Nature and Function of Dreams I. An Overview

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A dream which is not understood is like a letter which is not opened. --Talmud

The world has long been fascinated with dreams and the function they serve. In some traditional cultures, the life we live in a dream has even been considered the real life and the source of all important wisdom, whereas our daytime life is merely an illusion. At the very least, dreams have often been considered the province of the Gods. We find, for instance, that the God of Israel (Yahweh) is often informing and directing his people through dreams. In many societies, dreams were used to predict the future and to point out the potential for deception on the part of trusted “friends.”

Psychoanalytic Perspectives on Dreams

Much of the way in which dreams were viewed (at least in the Western world) changed at the beginning of the 20th Century when Sigmund Freud entered the scene.

Freud’s Perspective

In his remarkable *The Interpretation of Dreams* (Freud, 2000/2010), Freud turned not to the external gods, but rather to three internal “gods” of the human psyche. Let me introduce these three “gods.” Freud believes they are the primary authors and directors of human dreams. I will embellish on Freud’s portrayal of each of these three.

First, there is ID. According to Freud, the ID as an unrestrained voice for primitive urges. I imagine that sometime ID is dressed all in red, with a cape that swirls around as he moves in and out of the scene urging more drama and, in particular, more lust. Sometimes, she also is dressed all in red with a lot of flesh showing. She is always trying to seduce the actors or at least encouraging them to seduce one another. He looks a lot like Satan, and she looks a lot like a harlot. He/she lives for the opportunity to say “YES.” ID is often both the scriptwriter and the director.

Second, there is SUPER-Ego. Sometimes she is dressed all in black and is always marching in to demand restraint of the actors. She looks a lot like a prissy schoolmarm or library attendant. Sometimes, he is also dressed all in black, looking a lot like a hell and damnation preacher. She/he is very judgmental. And lives for the opportunity to say “NO.” SUPER-Ego is usually not the script writer, but does play the role of director and, most importantly, modified of the script presented by ID.

Third, there is EGO. He/she is dressed in “sensible” clothes and is standing at the edge of the stage, taking notes and occasionally negotiating with the actors (and the other three directors) on the nature and purpose of the dream. He/she is also checking with a focus group on how they think the play is working. He/she lives for the opportunity to say: “We can make it work.” EGO is often both scriptwriter and director.

Jung’s Perspective

By contrast, for Carl Jung the ID (or more accurately the interior psychic process) is an archivist and a highly gifted and creative artist. Representing the entirety our unconscious life, Jung’s equivalent to the

ID brings together not only our images from our personal unconscious, but also the rich source of images from the collective unconscious—including archetypes and collectively held myths.

Each of us is a creator of a personal mythology that borrows from all cultures and all history. The dream, according to Jung, is the theater where the dreamer brings together all elements of this theatrical production—serving as author of each of the scenes, each of the actors—and as prompter, stage manager. The dreamer is also the audience (with the shadow function of the psyche often serving as the critic).

Healy's Perspective

Traditional theories about the functions being served by dreams tend to portray only the ID and SUPER-EGO as authors and directors of the play. Many contemporary perspectives on dreams and their functions include EGO as the third author and director. Ben Healy (2019) offers the following summary (along with reference) of contemporary theories and research findings regarding the functions often assigned to dreams. Note the important role often played by EGO.

Healy begins by referencing the work of Sigmund Freud:

What are dreams for? A handful of theories predominate. Sigmund Freud famously contended that they reveal hidden truths and wishes. More recent research suggests that they may help us process intense emotions, or perhaps sort through and consolidate memories, or make sense of random neuron activity, or rehearse responses to threatening situations. Others argue that dreams have no evolutionary function, but simply dramatize personal concerns.

Despite being largely unsupported by evidence, Freud's view maintains a strong following around the world. Researchers found that students in the U.S., South Korea, and India were much more likely to say that dreams reveal hidden truths than to endorse better substantiated theories. Relatedly, people put great stock in their dreams: In the same study, respondents said that dreaming about a plane crash would cause them more anxiety than an official warning about a terrorist attack.

Healy turns to some of the research findings about the average person's experience of dreaming:

Even if dreams can't foretell_ the future, they seem to expose our shared fascinations. The majority of dreams occur during REM sleep cycles, of which the average person has four or five a night. Eight percent of dreams are about sex, a rate that holds for both women and men—though women are twice as likely as men to have sexual dreams about a public figure, while men are twice as likely to dream about multiple partners. Anxiety is also rife: A study of Canadian university students found the most common dream topics, apart from sex, to be school, falling, being chased, and arriving too late for something.

He also reports on research that suggests differences in the kind of dreams people of differing ages and coming from different cultures are likely to engage. He concludes with a reference to what I have already noted that many other species apparently dream (or at least spend considerable time in a REM state):

For all the commonalities dreams exhibit, they vary across time—people who grew up watching black-and-white TV are more likely to dream in black and white [10] and culture. A 1958 study determined that compared with Japanese people, Americans dreamed more about being locked

up, losing a loved one, finding money, being inappropriately dressed or nude, or encountering an insane person. Japanese people were more likely to dream about school, trying repeatedly to do something, being paralyzed with fear, or "wild, violent beasts." (For their part, beasts almost certainly have nightmares too: Just about all mammals are thought to dream, as are birds, some lizards, and—unique among invertebrates, cuttlefish. The dreamiest member of the animal kingdom is the platypus, which logs up to eight hours of REM sleep a day.

While I appreciate Healy's efforts to distill the studies that have been done regarding the functions served by dreams, I believe there are additional functions and many of them may serve an adaptive function.

Domhoff's Perspective

Before offering my list of potential functions, I should note that William Domhoff, one of the long-time leaders in the study of sleep and dreaming, believes that dreams serve NO adaptive functions. In *The Emergence of Dreaming* (Domhoff, 2017) provides research findings to support his negative appraisal regarding the evolutionary importance of dreaming.

According to Domhoff, dreaming is similar to the wandering of our mind during the day. He buttresses his argument by noting that the neurocognitive base for dreaming is also that for our mind-wandering activities. He believes that dreams are a biological accident—the kind of process that accompanies something that is of value (in this case certain cognitive abilities and neurobiological processes that are engaged when we are awake and learning how to survive in a world that is often hostile. Perhaps it is similar to the human habit of defining the in-group and out-group that might be a very non-adaptive spin-off from the highly adaptive tendency of humans to nurture and bond with those closest to them (members of their own family and tribe).

Domhoff (2017) does consider dreams to be indirectly valuable (and perhaps adaptive) in that they often play a central role in the healing practices and spiritual ceremonies to be found in many societies. Perhaps this is where dreams hitch on to the adaptive role I just mentioned of human nurturing and bonding. Thus, it might be that dreams do serve several important functions – even if it is only after we wake up, process and begin to use the dream content in our personal and collective lives. I will keep this in mind when offering my own list of functions.

Walker's Perspective

I do need to introduce one other more contemporary perspective on dreams. It is offered by Matthew Walker (2017). Like Domhoff, Walker is a member of the pantheon of noted researchers on sleep and dreaming (though a more recently joining member). Walker (2017, pp. 206-207) has this to say about evolution, REM sleep and dreaming:

. . . evolution may have gone to great lengths to construct the neural circuits in the brain that produce REM sleep and the functions that REM sleep supports. However, when the (human) brain produces REM sleep in this specific way, it may also produce this thing we call dreaming. Dreams . . . may serve no function. Dreams may simply be epiphenomena of no use or consequence. They are merely an unintended by-product of REM sleep. . . . If You need both REM sleep *and* to be dreaming about specific things to accomplish [important] functions, it would suggest that REM sleep alone, although necessary, is not sufficient. Rather, a unique

combination of REM sleep *plus* dreaming and dreaming of very particular experiences, is needed to transact these nighttime benefits.

To cut to the chase, Walker (2017, p. 205) seems to disagree with Domhoff about the functionality of dreams. He asks: “do dreams themselves, above and beyond REM sleep, actually do anything for us?” Walker answers his own question: “As matter of scientific fact, yes, they do.” Specifically, he identifies two major benefits that have been shown to accrue when REM and dreaming are engaged (+Walker, 2017, p. 207). These relate to “nourishing our emotional and mental health” and assisting “problem solving and creativity.” I bring both of these benefits to the fore when considering the diverse functions served by dreaming.

Alternative Perspectives on Dreams and Their Functions

A fundamental question can be asked. In what ways have dreams been adaptive? Why do they exist (apparently) in all mammals, and perhaps other animals? This might be the case since REM states are found in many species.

Evolutionary perspective

From a traditional evolutionary perspective, dreams would remain in the repertoire of many animals (including humans) because those animals that dreamed quite a bit would be more likely to survive into adulthood for some reason and would in some way be more attractive to the opposite sex. All of these would lead to an increased probability that this dreamer would be the parent of a bouncing baby girl or boy who would also be more likely to dream.

Searching for Adaptive Functions: Given this simplistic account of evolutionary selection, what kind of adaptive functions might a dream serve on behalf of preferential breeding? It certainly can be a venue for the expression of unacceptable wishes (as Freud proposed), however it can also represent various aspects of Self in interaction with one another (a Jungian perspective that I will soon introduce).

Is it adaptive to have some of our wishes fulfilled in dreams rather than in real life or for aspects of our Self to be interacting during our dreams? While these adaptive functions might be questionable, it certainly is possible that our dreams are adaptive when they provide insights about our relationships with other people.

What if dreams help us resolve some focal conflicts in our life or help us solve elusive problems? Perhaps the dream serves as a forum for deliberations among parts of ourself (a Jungian perspective). The dream might access the most creative and boundary-shattering aspects of our self. Does this make the dream adaptive? Perhaps, a dream that is filled with sheer entertainment makes it valuable in our stressful journey through life. This is equivalent to television and the Internet providing us with divergence while we are trying to survive on the African savannah.

At the very least, we can turn to Domhoff’s conclusions, that dreams do serve important functions during our waking hours. Dreams may mean nothing when enacted by the dreamers, but they often mean quite a bit when interpreted, followed and celebrated in specific cultures. If Domhoff is correct, then the kind of cross-cultural findings reported by Healy would seem to be important.

Looking Deeper for Adaptive Functions: Before I fully accept Domhoff’s diminution (or at least diversion) of the adaptive functions served by dreams, I want to move to a deeper level (and will do so in my

description of several possible dream functions). There are several more sophisticated functions being served by dreams. We know that sleep is required for the consolidate and sorting out of memories from the previous day (Walker, 2017, pp. 109-120). Short-term memories in revised and condensed form) become long-term memories during our hours of sleep. The consolidation might look something like what Greenwood (2021) describes (with benefit of a quote from Erin Wansley, a professor of cognitive neuroscience).:

. . . When we reactivate our memories, we aren't repeating the original experiences exactly as they were. "If you dreamed about this phone conversation, it would not resemble the actual phone conversation. It would be really different, and weird, and bizarre." . . . "But we know that that actually is how memory so-called replay is. It's not exact."

It would seem that some of the consolidation and reshaping of memories occurs through engagement of dreams. Insights might also be produced via dreams as a result of this consolidation. I will also be offering a theory later in this essay concerning a complex, intrapsychic process called "peremptory ideation" that might be engaged (in part) when we are dreaming. If this is the case, then a vital function might be served in bringing about the construction of important concepts and images that help to guide our actions in the "real world."

There are at least two other neurobiological benefit to be derived from dreaming. David Eagleman, a neuroscientist at Stanford, has been studying something called "defensive activation." He notes that the brain is skilled at moving specific neuro functions from one part of the brain to another if that other part is not being used. This is a remarkable phenomenon called "neuro plasticity." Since we live in a world that sometimes is light and sometimes in dark where we live, there are many hours of the day when there isn't much use for the visual cortex (at least until we invented light devices that light up the night).

Eagleman (Eagleman and Vaughn, 2021, p. 26) has proposed that the brain preserves the territory of the visual cortex by keeping it active at night:

Dream sleep exists to keep neurons in the visual cortex active, thereby combatting a takeover by the neighboring sense. In this view, dreams are primarily visual precisely because this is the only sense that is disadvantaged by darkness. Thus, only visual cortex is vulnerable in a way that warrants internally generated activity to preserve its territory.

Another benefit is reported by Veronique Greenwood (2021). Erik Hoel, a theoretical neuroscientist at Tufts University, has suggested that dreams are purposefully "weird": "the no-quite-right quality of dreams sharpens the brain's ability to generalize about situations instead of having to memorize specific response to them."

The functional weirdness in dreams apparently also contributes to the memory consolidation that I just identified. In summarizing some neurobiological research, Greenwood states that: "variation— weirdness, essentially—is widely thought to be important in the brain's methods for consolidating memories." Thus, we find that the role played by dreams might be quite complex and amenable to very detailed neurobiological analyses, as well as some quite sophisticated descriptions of inner-psychic processes.

Given my preliminary exploration of the potential adaptive functions to be served by dreams in the evolution of humans (and other species), I turn to a more detailed exploration of the functions that have

just identified. I often will offer examples of specific dreams that I have collected from other people I have interviewed (whom I call the “dreamers”) I also offer some of my own dreams to exemplify the way(s) in which specific functions are being served. I begin with the most widely proposed function: wish-fulfillment.

Wish-Fulfillment

This is Freud’s original assumption about the function of dreams. The fulfillment of a specific desire (or need) is forbidden but is expressed anyway (often in disguised form). However, the wishes need not be sexual (at least on the surface). The wish can be very tangible and mature (not primitive). A dreamer received a wonderful resolution of a business challenge. A large payment was made by a customer. The dreamer recalled crying out “please don’t let this be a dream” – and then woke up.

Maybe this dream was primitive and fanciful – it was gift that the dreamer didn’t work for—or deserve. On the other hand, this dream helped to reinforce a real-life issue regarding a decision that the dreamer was about to make (and that the dreamer had been struggling with that evening—that was keeping the dreamer up for about an hour.

Another dreamer describes a dream in which a very interesting interpersonal relationship is enacted. This is an interpersonal engagement that the dreamer will never have—but would like to have. The dreamer is sitting down with a group of jazz musicians. They ask what I do. “I am a social worker . . . like you I am in the business of improvisation.” We laughed together. I Shaked the hand of the pianist and then left.”

The dream can serve in yet another way as a “gift” for the dreamer—and as a vehicle for wish-fulfillment. In our dreams we can accomplish something wonderful that is praiseworthy. Other people acknowledge what we have done. We feel great. One of my dreamers recounts the wonderful impact on them (even when later awake) of a dream in which they cooked a great feast for many people. They were applauded by everyone. Glasses of a wonderful wine were hoisted as a toast to their culinary talent. A strong desire that propelled their cooking activities during waking hours was fulfilled in the dream. Was this just a cover for an underlying sexual desire (given the close connection between food and sex) or is the toast honoring this chef enough gratification for one day.

There is another way to conceive of the wish-fulfillment function. In real life, a specific act is blocked because it is forbidden (“you can’t sleep with him! He is your sister’s husband and is happily married!”) or because there are barriers in the way of completing the act (“you can’t really fly. Unlike a bird you have no wings and are much too heavy!”). We know that uncompleted acts often accompany major trauma if these acts were intended to protect us or people we love. (Levine and Frederick, 1997).

While these major traumas are fortunately rare in most of our lives, the uncompleted act can still be frustrating and anxiety-producing. Most importantly, the uncompleted act tends to linger in our memory. This is what psychologists call the “Zeigarnik effect” We see this effect in place when we witness and experience a lingering desire to finish that 3%^&(\$* jigsaw puzzle or finish painting that wall (even though your back aches from trying to paint the ceiling). The dream often provides a setting for completing the act. We dream of making love to our brother-in-law (“what!!!”) or we fly all over the place (“we just have to give it a good bounce!”)

One of my dreamers recounts a dream in which she was arranging for a major meeting. It had not yet been held and was likely to be cancelled because of health challenges (the pandemic) and related transportation problems. She dreamed that the meeting did occur and that it was a big success. My colleague reported that this dream yielded quite beneficial results. She was able to relax and let everything play out. In due course, the meeting was canceled. My colleague reported that she had savored the success of meeting in the dream and didn't need the actual meeting to be a success. Dreams can triumph over reality. Wishes can be fulfilled if not by Walt Disney then by what occurs in our dreams.

Visual Entertainment

In writing about dreams, Jonathan Leonard (1998) observes that: "The dreams most of us remember tend to be action-packed, emotional and strange. The dreamer is often falling, escaping or insecure." In other words, dreams are entertaining! They might leave us with a sense of insecurity; however, typically we can handle this insecurity. If we can't then we tend to wake up and feel reassured that this too thrilling action tale is to be found only in our dreams (and in the movies we watch and novels we read). What a remarkable source of entertainment – and we are usually located right in the midst of the action (much as is the case in some Internet fantasy games).

Telling a Story: There is another important feature of most dreams—especially if they are lengthy. They tell a story that might be not only entertaining but also filled with insights that can be of benefit to us (filling one of the other functions of dreams). Dreams can be great storytellers. Long before there was radio or television, stories were being told around an outdoor fire or at a dinner honoring a retiring employee. Often the story has many episodes—whether it be told in front of the living room fireplace or at a meeting hall: it may take many nights to tell the whole story or several different speakers to gain a full sense of what the honoree accomplished in life.

One of my dreamers reported that she was in the midst of enjoying a mythic tale during the night. She couldn't wait to fall asleep! It is a tale of heroism (on the part of the dreamer) that occurred during a recent war (WWII or Korean War). It never occurred in reality (the dreamer is much too young for either war). Thought not "real", this dream has been played out many times in recent years for the dreamer. Furthermore, it plays out in great visual and narrative detail—to the extent that at times the dreamer believes that it really happened. Apparently, we don't need computer-generated worlds in order to find ourselves actively involved in a heroic tale.

Passive and Active Dreams: An important distinction can be drawn here. Dynamically, the dream can be quite PASSIVE in character. The images engaged in the dream can be borrowed from other sources – such as a television show that the dreamer watched or a book that the dreamer was reading before going to bed. The dream content (as many dream researchers have noted—going back to Freud) can be made up of "day residue" (events that were engaged or observed by the dreamer during the previous day. Furthermore, the dreamer can sit back and be entertained – and perhaps even recipient of some wish-fulfillment. In these cases, the dream is indeed quite primitive—and the dreamer plays a passive role (much like a young child who is waiting to be fed.)

By contrast, the dream and dreamer can be quite ACTIVE. New stories are presented and visual scenes that never occur in the "real" world are displayed. I describe this as the "etch-a-sketch" process that can be engaged in dreams. We can fool around with many visual elements in a dream (just as we can with

the lights placed on an etch-a-sketch board). Alternative visual displays can be produced and enjoyed by us: we create a beautiful mountain scene or mix together the baroque intricacies of a gothic cathedral with the consumable features of a gingerbread house. Bright lights are displayed along with a dancing Panda bear and a deck of play cards that are shuffling themselves. Any of these images will be unique. They should be fully appreciated for their creativity—and the source of this creativity in our psyche should be acknowledged—and perhaps even engaged more often during our waking hours.

The dream can be quite playful – meeting an important human need –as illustrated by Johan Huizinga (1968) in his portrayal of *homo ludens* (the fundamental need of human being to play). As observed by Donald Winnicott (2005), it is through play (as a child or adult) that gain a sense of self and ultimately a sense of well-being. When engaged in play, we can try out different behaviors without consequence. The dream can help us meet our *homo luden* need for play.

Our dream can serve as a playground for trying out something different without real-world consequence. While there might be “consequences” in the play offered in the dream, these consequences are only make-believe – just as playful jousting with wooden swords usually results in no actual wounds or defeat of a foe. The dream is truly capable of producing something new in a playful and inventive manner. It is creative and boundary shattering. In its playfulness, the dream can be generatively creative—which means that it cannot only be entertaining but also helpful to the dreamer in serving some of the other functions).

In some instances, the active and passive combine in the production of HYBRID dreams. The scene for a television program, movie or theatrical play is played out (often in a very creative manner). A different version might be offered, or the dream moves the narrative further into the future. The happily married couple in that movie are portrayed in the dream as older adults who are having marital problems or are dealing with the pending death of one member of the couple. The televised battle between two mythic armies is turned on its head and the “bad guys” actually win.

Insight-Generating Perspective

Dreams can yield insights in at least three domains: (1) interpersonal relationships, (2) culture and (3) personal psyche. I turn first to the way in which dreams might provide us with insights regarding our relationships with other people. I turn to the wisdom offered by psychoanalyst, Erich Fromm (1951) in the exploration of this function.

Interpersonal Insights: While Fromm addresses many other ways in which dreams yields insights, he is particularly focused in his case studies on interpersonal insights. He sets the stage for his analysis by noting the fundamental difference between the world of our waking life and that of our sleeping/dreaming life (Fromm, 1951, p. 27):

While we sleep we are not concerned with bending the outside world to our purposes. We are helpless, and sleep, therefore, has rightly been called the “broth of death.” Bu we are also free, freer than when awake. We are free from the burden of work, from the task of attack or defense, from watching and mastering reality.

As Fromm suggests, we tend to “bend” reality when we are awake. In this state of bending, we are “reasonable” and “decent.” By contrast (Fromm, 1951, p. 33) we are less reasonable and not very decent in our dreams; however, “we are also more intelligent, wiser, and capable of better judgment

when we are asleep than when we are awake.” As reasonable but less intelligent human beings we are facing a world that challenges us in many ways—especially the world of interpersonal relationships.

We desperately want to trust other people, successfully work with them and find them to be competent and caring. This might not actually be the case—but we have to “believe” (especially if they are very close to us—even intimate). It is during our dreams that Fromm suggest we are set free. Our defenses can be lowered or even set aside. We can see other people “as they really are” – or as one aspect of them “truly is.” In concluding a set of case studies about dreaming, Fromm (1951 p. 45) concludes that:

Not only do insights into our relation to others or theirs to us, value judgements and predictions occur in our dreams, but also intellectual operations superior to those in the waking state. This is not surprising, since penetrating thinking requires an amount of concentration which we are often deprived of in the waking state, while the state of sleep is conducive to it.

Matthew Walker (2017, p. 215) picks up an exploration of this interpersonal relationships sub-function where Erich Fromm leaves off. Walker complements Fromm’s clinical insights with research evidence and neuroscience findings regarding the partnering of REM with dreams:

. . . we can think of REM sleep -like a master piano tuner, one that readjusts the brain’s emotional instrumentation at night to pitch-perfect precision, so that when you wake up the next morning, you can discern overt and subtly covert micro-expressions with exactitude. Deprive an individual of their REM-sleep dreaming state, and the emotional tuning curve of the brain loses its razor-sharp precision. Like viewing an image through frosted glass, or looking at an out of-focus picture, a dream-starved brain cannot accurately-decode facial expressions. which become distorted. You begin to mistake friends for foes.

While Fromm traces out the implications of this sub-function for mental health (as evidence both in the therapy office and in daily life), Walker (2017, p. 217) points to the damaging impact of failed interpersonal sensitivity on many important human service functions:

Now think of occupations that require individuals to be sleep-deprived, such as law enforcement and military personnel doctors, nurses, and those in the emergency services--not to mention the ultimate caretaking job: new parents. Every one of these roles demands the accurate ability to read the emotions of others in order to make critical even life-dependent, decisions, such as detecting a true threat that requires the use of weapons, assessing emotional discomfort or anguish that can change a diagnosis, the extent of palliative pain medication prescribed, or deciding when to express compassion or dispense an assertive parenting lesson. Without REM sleep and its ability to reset the brain’s emotional compass, these same individuals will be inaccurate in their social and emotional comprehension of the world around them, leading to inappropriate decision and actions that may have grave consequences.

Just to ensure that we don’t regard this threat to interpersonal attunement as just a matter of REM-state, Walter (2017, p. 216) reiterates the importance of high-quality dreams by referencing research findings:

Confirming the importance of the dream state, the better the quality of REM sleep from one individual to the next across that rested night, the more precise the tuning within the emotional decoding networks of the brain the next day. Through this Through this platinum-grade

nocturnal service, better REM-sleep quality at night provides superior comprehension of the social world the next day.

Interpersonal relationships can also be explored in other ways when we are dreaming. In our dreams, we can create an alternative social reality. We must live in this reality and relate to other people in a new way. We fully experience (cognitively and emotionally) all of this in our dreams –and can gain some new insights about our relationships with other people.

One of my dreamers describes a dream in which he is living in a community that is run by women. The men are forced to leave (abruptly) and must find some place to eat and sleep out in the forest. My dreamer describes his own feeling about being “kicked out” as a man by very strong women and his experiences of surviving (and ultimately thriving) when living in the forest with other men.

Culture: Dreams can lead us away from our current culture into another culture – or leave us standing on a cliff looking over our current culture. As in *Alice in Wonderland* or in *Gulliver’s Travels*, we can begin to see our current “real” society and social norms in new ways. This “other” culture can arrive in our dreams from other parts of the world or from other times in history.

Obviously, this alternative culture is usually borrowed from movies or television programs we have seen or a book we have read. These renderings may or may not be accurate. The accuracy may be less important than the insights this “culture” generates in our dream (and life). Perhaps, as the Jungians suggest, this culture is actually an “alien” part of our own psyche – or it emanates from our collective unconscious (a very controversial segment of Jungian theory).

Regardless of the source of our culture, we should appreciate the complex and vivid portrayal that often is offered to us in the dream. It is one thing to display a specific relationship or pose a specific problem for us to solve; it is quite another thing to paint an entire culture with a wide cast of characters. I suspect that these cultural dreams often occur late at night when our dreams tend to be longer and more vivid. I also wonder if we pull out all of the stops when portraying a complete culture in order to address

Intra-Psyche Processes: The dream can also yield insights about our own internal (“psychic”) workings. Some Jungian analysts suggest that all aspects of the dream represent some part of ourselves and that the dream represents an attempt to bring together these diverse aspects –a search for equilibrium and a process of integration that Jungians call “individuation.” Jung himself wrote extensively about and visually represented this integrative process in his remarkable *The Red Book* (Jung, 2009)

Jung found a mythic guide (Philemon) for his own work and declared frequently that we each need to find our own internal guide and perhaps an external guide (such as a Jungian therapist) to assist us in creating our own personal mythology. Our dreams are a primary source for the creation of this myth. In the creation of this myth, we find profound personal insights.

In many cases, each of these aspects of ourself is accompanied by a specific emotion (or several different emotions). When these parts of our self begin to interact in the dream, we also experience the interaction of the accompanying emotions. Many rich insights when we are awake can be gained from reflecting on the nature and outcome(s) of these interactions. Perhaps, as the Jungians might suggest, our psyche is sending a message to us= through the dreams. It might be wise for us to pay attention to these messages. Jungians would suggest that we do need to interpret the dream in order to gain

insights, for the dream reveals more than it conceals. To quote Carl Jung: “Who looks outside, dreams; who looks inside, awakes.”

While Jung speaks to us about the open book being offered by our dreams, I would also suggest that our dreams can fool us. While working on an article about what brings on sleep, I dreamed of a sleep-inducing herb called “golden flower.” It was wonderful. In my dreams I read the reviews and found that “golden flower” had been proven to be very effective. It was a compound with flax seed as its main ingredient. This was a very impressive and detailed review. When I woke up, I raced to my computer and found that this magical herb was only in my dreams! I was very impressed with the active and detailed work being done by my dream – but it was not real! I was fooled.

Problem-solving perspective

We certainly can go to dreams as a way to gain insights and find integration in our life. This can be a highly productive and developmentally significant use of dreams. However, there may be a more immediate concern that is pressing for our attention. This could be that childhood issue with which we are still grappling. We are now grown adults, who hold down a responsible job and are raising our own children. Still . . . we sometime find ourselves competing with that co-worker down the hall or that fellow with whom we play handball every week. It all feels too much like that sibling rivalry we had with our brother at a much earlier time of our life. Maybe, instead there is that lingering matter of trying to gain our parent’s attention and love—even though both of our parents have been dead for at least a decade—or they are now quite old, and we have become their welcomed guardians or at least sources of weekly reassuring phone call.

Focal Conflicts: I am reminded of one of Robert Munsch’s books (Munsch and McGraw, 1995) in which a caring parent is cuddling and singing to a rebellious child: “I’ll love you forever. I’ll like you for always.” At the end of this lovely book, the child (now grown) is singing the same song while cuddling his aging parent. This is a poignant portrayal of inter-generational caring – yet at a deeper level we are still seeking out their approval and even their affection. The reciprocal caring for a parent might help us resolve a deeply embedded problem (such as the focal conflict to which I am about to turn). Perhaps the cuddling and lullaby help. We might also feel a bit less competitive with our worker/siblings as we gain more success in our career or find that career success has become less important (or our testosterone level has dropped a bit).

All of this concerns what Thomas French (1952) identifies as the Focal Conflicts which we must continually address during most (if not all) of our life. French has built an entire therapy program around this concept of focal conflict. French’s concept has also been used as the core of human relations programs and the base for treatment of depression. In collaboration with Erica Fromm, Thomas French has also applied the concept of focal conflict to a task undertaken by our dreams (Fromm and French, 1964) They propose that every dream addresses a focal conflict that relates to our daily challenges and more fundamentally to our life plan and program.

At a less profound level, I propose that there are three important sub-functions being served regarding the problem-solving perspective as it relates to the more immediate problems we face as members of organizations who are facing challenging issues. First, the dream can be used to “pilot test” a solution. Second, the dream can be used to rehearse a solution that has been chosen (at least in the dream). Third, the dream can be used to analyze the impact of this solution—perhaps featuring both potential

positive and negative outcomes. Returning to our original cast of characters, this role played by the dream seems most closely related to the Ego function. The Id and Super-ego have been asked to leave the dream room for a while. An Ego-based problem-solving and executive is not in charge.

Committee of Sleep: Deirdre Barrett (2001) does a wonderful job of portraying these Ego-based sub-functions using the metaphor of “committee.” She offers many examples from throughout history and in many fields to illustrate the way in which dreams are engaged to solve problems. They also can provide some of the marvelous Ego-based functions, such as artistic endeavors and scientific discoveries that often require what ego psychologists call “regression of the ego” (Hartman, 1958; Kris, 1953). The committee can assist with many ego-based functions such as not only solving problems and making discoveries but also creating an artistic masterpiece or designing a breakthrough software program. Barrett (2001, p. 184) offers the following historical summary:

For centuries, creativity was seen as beyond man, a gift from the gods. If dreams played a role, they were considered divine messages. In the nineteenth century, Goethe and Schiller connected creation with the unconscious. Though still mysterious, the process was now viewed as internally arising rather than externally imposed. Freud's emphasis on dreaming as "the royal road to the unconscious" brought it into this same realm.

Twentieth-century psychologists divide problem solving into four stages: "preparation," "frustration," "inspiration," and "verification." Inspiration cannot be accessed at will, and creativity is most essential here. This is where dreams typically play their role. Any break from concentrated problem solving may allow a misleading assumption to dissipate. But the sleeping mind abandons conventional logic most completely to pursue novel approaches.

At this point, Barrett (2001, p. 18) asks the key question: how does this work?

How does the Committee do this? Neurology suggests that dreaming is simply the mind thinking in a different biochemical mode. Throughout this emotional, visual, hallucinatory state, we continue to worry about personal, practical, or artistic problems—and occasionally we solve them. Freud wrote of a "dream censor" keeping unacceptable sex and aggression at bay. But as a gatekeeper for novel solutions to problems, the Committee is a more liberal than any daytime censor.

Barrett (2001, p. 189) concludes with this statement about the distinctive role that dreams can play in solving problems: “Dreaming is, above all, a time when the unheard parts of ourselves are allowed to speak—we would do well to listen.” While Barrett is speaking from a 21st Century perspective and has moved well beyond the psychoanalytic perspectives of the early 20th Century, she still acknowledges the liberating role played by dreams and echoes Carl Jung’s exhortation that we should listen to what the dreams are telling us.

Matthew Walter (1997, p. 219) adds to what Barrett has offered, building many of his conclusions on research conducted about REM and non-REM sleep:

Deep NREM sleep strengthens individual memories, as we now know. But it is REM sleep that offers the masterful and complementary benefit of fusing and blending those elemental ingredients together, in abstract and highly novel ways. During the dreaming sleep state, your

brain will cogitate vast swaths of acquired knowledge, and then extract overarching rules and commonalities- "the gist" We awake with a revised Mind Wide Web that is capable of divining solutions to previously impenetrable problems. In this way, REM-sleep dreaming is informational alchemy. From this dreaming process, which I would describe as ideasthesia, have come some of the most revolutionary leaps forward in human progress.

Walker (2017, p. 226) goes on to draw analogy to peering out of both ends of a telescope:

This widening of our memory aperture is akin to peering through a telescope from the opposing end. When we are awake we are looking through the wrong end of the telescope if transformational creativity is our goal. We take a myopic, hyperfocused, and narrow view that cannot capture the full informational cosmos on offer in the cerebrum. When awake, we see only a narrow set of all possible memory interrelationships. The opposite is true, however, when we enter the dream state and start looking through the other (correct) end of the memory surveying telescope. Using that wide-angle dream lens, we can apprehend the full constellation of stored information and their diverse combinatorial possibilities, all in creative servitude.

One final observation offered by Walker (2017, p. 228) regarding the vital role played by REM coupled with high quality dreams as a vehicle for creative assembly of information contained in our memory:

Some may consider this informational daisy-chaining to be trivial, but it is one of the key operations differentiating your brain from your computer. Computers can store thousands of individual files with precision. But standard computers do not intelligently interlink those files in numerous and creative combinations. Instead, computer files sit like isolated islands. Your human memories are, on the other hand, richly interconnected in webs of associations that lead to flexible, predictive powers. We have REM sleep, and the act of dreaming to thank for much of that inventive hard work.

Dream Outcomes and Play: As I turn from the important points regarding the dream serving a problem-solving function, I find that the challenge of assessing dream outcomes comes to mind—especially if we acknowledge that dreams can be playful. How did Barrett’s artists, scientist and business strategists “know” that they had solved a problem or produced something of value? Barrett notes that “verification” is one of the problem-solving stages. How does this stage enter into the world of dreams? As in the case of playful behavior, an outcome might be envisioned resulting from the dream-based problem-solving process. Ultimately, the verification must take place outside the dream—if the product of a dream is to be taken seriously.

As I will note again at the end of this essay, post-dream processes are often just as important as the content generated in the dream if a specific function is to be successfully engaged. I am reminded of a process called “discernment” that was engaged by Medieval mystics as they were seeking to convey messages for divine sources. These mystics often had great antennae to pick up these divine messages; however, they might also be receiving messages from less divine sources. Hence, they had to discern what was and what “divine.” A similar process of discernment must be engaged by those of us who are not mystics—but do wish to make use of ideas produced in our dreams.

There is another kind of outcome that moves beyond what Barrett identifies or what mystics are likely to do with the divine messages they receive and convey to other people. In addition to the identification of a specific solution to a vexing problem, the dream serves as a testing ground for action being taken

regarding the solution. We can think of the dream serving as a “pilot test” for one or more solutions. As I will note shortly, the dream can also serve as a “dress rehearsal” for the actual enactment of the solution – or at least for presentation of the proposal solution to certain stakeholders (real or imagined).

It should be noted that playful dreams do not necessarily lead to waking action—nor to anything other than a mild sense of glee when we wake up. Perhaps the playful dream produces a waking smile and a bounce out of bed to face a day that should not be taken too seriously. In other words, dream outcomes need not be carried over into one’s waking life.

There can be some lingering emotions—the exhilaration I just mentioned or occasionally a bit of depression (as we realize that the real world is not quite as much fun or amenable to our playful interpretations). These emotions (if positive) can themselves be a gift for us. As some dream theorist suggest, the dream can serve as an inexpressive therapist. Or the playful dream can at least serve as an adult substitute for Mister Roger’s optimistic appraisal on television that everything is fine in the neighborhood!

Stories are abundant about each of us coming to the “pearly gates” and being let into heaven only after being judged by God or God’s administrator in heaven. The same kind of judgement (though much less existential) can occur during our dream about engaging in a specific solution to that lingering and perplexity problem. Dreams often incorporate trials or the completion of tests.

I know that most of my colleagues who have received doctorates dream about going through the gauntlet of their dissertation committee—and find that this dream segment shows up when they are considering specific solutions to the professional problems they are facing. Did I really deserve to be awarded the doctorate and am I really equipped to solve this problem? Am I really a charlatan who will be soon found out and denied my doctoral degree? At this point the dream can become a nightmare and will often cease to be productive.

One final point about dreams serving as tools for problem solving. I return to Matthew Walker (2017, p. 230) who concludes based on his review of research (often conducted by himself), “the *content* of one’s dreams, more than simply dreaming per se, or even sleeping, determines problem-solving success.” It is not enough to convene the committee of sleep—something must be generated by this committee that is of value. If one is going to address a focal conflict, this “therapeutic” process has to yield a successful outcome. Our focal conflict dreams might be repeated many times precisely because we have not yet fully unraveled or resolved this life-long struggle.

Planning Perspective

In our dream, we can assemble our support team. Much like Barrett’s committee of sleep can help us solve problems, so members of this committee can also help us do some planning. They become “coaches” that assist us with our planning. In the dream there might be the “cheerleader” who extolls our virtues and the strength of our plan. The dream might also introduce a “visionary” who portrays a possible future for us.

A door to this future might be opened (a rather cliqued dream element) or our visionary might transport us to a different (and preferable) world. The visionary might be a real “nut wagon” who offers a silly idea. Yet, in that silly idea there is often a touch of reality and a sign pointing in the direction of a valid path to the future. The visionary might also be quite brilliant and creative. This dream-based figure

could represent our best self (a self that we often ignore or discount). A better solution is offered, or a creative idea is presented that makes an adequate solution even better.

The Creative Self: The creative part of us can often be found in our unconscious mind—and often appears suddenly when we are awake, but relaxed or distracted. We are taking a shower and suddenly the solution to a problem we have been struggling with for several weeks comes to the fore. With soap in our eyes, we struggle to scramble out of the shower stall and find a pen and paper where we can write down our solution. Perhaps, we are driving to work, and the solution pops out. Do we drive to write it down while driving (not a good idea!) or pull off to the side of the road and write it down. The setting might be a playground where we are watching our child on a swing. Or it might be a moment when we are just about to fall asleep (during the hypnogogic stage that I shall describe shortly).

The key feature is that our “defenses” are lowered, A new idea is allowed to emerge. We have known about this phenomenon for many years – it is called “incubation” and has often been depicted regarding the occurrence of major breakthroughs in both the sciences and the arts (Ghiselin,1985). I like to think of this as a wonderful stew that is simmering on the back burner of our stove. We are not attending to it, but the stew is getting better and better. Finally, we notice it and bring it to a front burner and dish it up for our own enjoyment and that of other people.

Our Creative Assistants: As in the case of placing the ingredients in the stew and do the initial seasoning of the stew, the problem is attended to with great care for a short (or extended) period of time. We can find no adequate solution—in part because we usually look only to solutions from the past. We give up frustrated and exacerbated and move on to something else. The problem is still being worked on—but at another level of our mind (the back burner). New, novel solutions are swirling around on this back burner. Finally, it is ready to be “consumed”. A moment is awaiting when we are relaxed or distracted. The solution now comes forward and we attend to it. Sometimes, this solution might be conveyed through the visionary in our dream. The incubation process is fully engaged – whether or not we are awake!

A dream can also provide a “networker” who introduces us to other characters (alive, dead or mythic) who can offer ideas and share stories that illuminate our current or future condition. As the Jungians have often noted, our subterranean “networker” has access to a vast reservoir of insights and narratives. We might even have access via our networker to resources that are in some sense genetically inherited I—the so-called “collective unconscious”.

There might be a challenger or jokester in our dream who offers a playful or even quite thoughtful and valid critique of our work. We can turn again to the wisdom offered by the Jungians who write of the “shadow” entity that lives in our unconscious and serves as a corrective to our puffed-up self (the persona—public mask). Inside the dream, this shadow function often serves as a counter to the cheerleader and visionary. This corrective function might even lead to our dream becoming a nightmare—where a quite disturbing alternative reality and outcome of our planning is enacted. We wake up and do some rethinking of the carefully laid out plans we produced when awake.

There is the option-provider who offers an alternative pathway for us to consider. While this dream character might not be laying out a “yellow brick road” for us, they might be giving us a glimpse of a set of actions we can take that have we have not previously considered. We might be given a change in clothes—now being clad as a warrior or as a famous movie star. The alternative scenario might

introduce us to potential allies or potential enemies (including people in our real life – see Erich Fromm’s interpersonal function).

The contingency-planner stands alongside the option-provider. In a dream, this character is offering or even plays out a possible set of actions that could take place in response to a possible situation or shift in situations or in one or more possible environments in which action must take place. As is often case with “real life” coaches, the dream-based contingency planner is in the business of not only offering specific challenging settings and alternative actions, but also of opening the client (dreamer) up to doing their own contingency planning. We are not weak or indecisive when we acknowledge that things might change and that we might change our mind and our actions. While this contingency perspective might be hard to embrace in “real life”, the dream can be a safe place in which to engage this perspective—especially with the guidance of the dream-based contingency planner.

Finally, the role of dream as “coach” is perhaps best engaged when a character in our dream becomes a patient “listener”. The listener often brings us back in the dream to what we have already said or done. Our statement or action can be stated (or demonstrated) in a new and revealing way by the listener. The listener could change cloths and become a clown to real the “silliness” or “sad truth” in what we have said while awake (or at an earlier point in our dream).

The listener might instead transform into a person (such as our long-deceased father) who offers an interpret of what we have said from their own perspective. I often had dreams earlier in my adulthood, when I would be conversing with my mother (who had passed away five to ten years earlier). In real life, I would talk with her as a child while she was engaged in ironing the family cloths (those were the days when ironed clothes were a social requirement). Now, in my dreams, she would listen to what I had to say and then serve both as a cheerleader and critique—offering me some gentle encouragement as well as cautionary wisdom. It is wonderful when a dream can enable us to retain the special relationship that we had with one of our parents—long after they passed away.

Autotelia (Just for Enjoyment): Before we move on to the final function, I must acknowledge that some of our planning in dreams is being done just for the enjoyment of imagining a fanciful event. Planning joins with wish-fulfillment to welcome in our psyche’s often-ignored creativity. I recently was read an autobiography written by Mel Brooks, who is not only the author of many hilarious movies and a successful Broadway show but was also one of the writers of the Show of Shows (a the now legendary television show starring Sid Caesar and Imogine Coca). An episode from Brook’s biography seems to have crept into one of my dreams: I was part of a team of writers in my dream who were give the task of coming up with a new comedy show.

In my dream, some unusual characters were invited to join this team. One of them was a veterinarian. This made sense because the show was to be about people who brought in strange pets to their Vet that don’t behave. It would be a bit like the Tonight Show with Johnny Carson, when pets ran around the stage or tried to bite Johnny. The show would include some very large snakes and perhaps a lion or tiger. Furthermore, as in the movie “Best of Show” the pet owners would look quite a bit like their pets. In our show, the pet owners would not just look like their dogs but also like their snake or their house-trained lion. I was truly enjoying the envisioning of this television series – and know that it would be as successful and hilarious as Brooks’ own TV show and movies! We can plan “just for the hell of it.”

Psychologists call this autotelic (self-goal) behavior and Csikszentmihalyi would probably describe this as “flow” if it occurred during our waking life. It seems that *autotelia* and flow are to be found in our dreams—and the outcomes of these flow-related dreams are spectacular. Matthew Walker (2017, p. 228) is certainly an admirer:

More than simply melding information together in creative ways, REM-sleep dreaming can take things a step further. REM sleep is capable of creating abstract overarching knowledge and super ordinate concepts out of sets of information. Think of an experienced physician who is able to seemingly intuit a diagnosis from the many tens of varied, subtle symptoms she observes in a patient. While this kind of abstractive skill can come after years of hard-earned experience, it is also the very same accurate gist extraction that we have observed REM sleep accomplishing within just one night.

I join with Walker in concluding that dreams not only serve important cognitive (thinking) and affective (emotions) functions. They do so in a manner that pushes the frontier of human achievement. Perhaps, as the Jungians would suggest, dreams enact this function with the assistance of unconscious processes and a deep archive of collective memories, images, stories and myths.

Enactment Perspective

We can take a segment from the title of a Lerner and Lowe song from *My Fair Lady* to describe this function: “I’ve grown accustomed . . .” A new and unique task is done repeatedly in the dream. The dreamer is now “accustomed” to doing the real thing. Healy (2019) ends his own summary of dream functions with the following statement:

So the next time you dream about an education related sexual experience in which you are both falling and being chased, don't worry: It's probably totally meaningless. Then again, your brain might be practicing so you'll be ready if such an event ever comes to pass.

We can practice in our dreams – even for some required activity that will never occur. A similar event, however, might occur and our rehearsal in responding to a similar (though only fantasized) event could come in handy. I am reminded of workshop exercises that I often conduct in which participants are asked to solve silly problems or to play roles that they would never be asked to perform in the real world. What, for instance, would you [workshop participant] do if they ruled the world? You are a miracle worker who can heal anything. What three things in the world would you most want to heal.

I often engaged a psychodrama exercise in which I take on the role of a shopkeeper who stores bottles on the shop wall that are filled with anything that anyone could desire. A workshop participant enters my shop and I tell them that I will give them anything they want as long as they give me all of something that they now possess.

On the surface, this would seem to be an easy trade: “I [the workshop participant] will give you [the shopkeeper] all of my anger and you give me a lifetime full of happiness. However, do I really want to give away all of my anger? And what would a lifetime of happiness look like?” My participant tries out other options. They soon find that they are “rehearsing” some of the real-life struggles that they have in establishing priorities. It is often a matter of managing polarities (Johnson, 1996). We swing back and forth between one priority and then the other priority. The psychodrama rehearsal can be of great value

in helping us find a way to manage polarities. So can comparable rehearsals and hypothetical exchanges that occur in our dreams.

Dysfunctional Dreams

The dream is dysfunctional if nothing was learned from the dream (boredom) – and it was not at all “entertaining” (anxiety). Dreams occur at the threshold between boredom and anxiety – equivalent to the flow experiences in waking life (Csikszentmihalyi, 1990).

Anxiety dreams

Sometimes we are overwhelmed in our dreams by anxiety. Flow doesn’t exist—there is too much challenge and not enough support—with is the description offered by Nevitt Sanford (1980) for an environment in which we are frozen and unable to navigate or learn (equivalent to Csikszentmihalyi’s flow). These dreams often appear as nightmares. Typically, they are overloaded with symbolism and multiple memories that are intended to offer protection—but the defense is overwhelmed by the power of the content that emerges.

As Carl Jung would suggest, the awe-filled, dread-filled *numinous* breaks through as the protection breaks down. For Jung, this break down is orchestrated by the shadow function. Both the personal shadow and collective shadow are involved. The personal shadow consists of repressed experiences that are unacceptable and that we can’t fully integrate into other aspects of our self. In this way, Jung is somewhat aligned with Freud (though Jung’s shadow is not obsessed with sex as is the case with Freud’s Id).

The personal shadow can collect fantasies, desires, feelings (especially sadness, disgust and shame), and uncomfortable memories (especially of abandonment, rage and panic). We are hard-wired (via the amygdala) to see and react to threat. Our memories of threat and associated emotions are never lost. There is no memory “erasing” function in the amygdala as there is in the hippocampus (which is our major repository of memories). The amygdala is alive and well as an actor during our anxiety-filled dreams – whether or not we embrace Jung’s notion of a personal shadow.

With the collective shadow, Jung moves well beyond Freud and taps into the profoundly disturbing history of human cruelty and violence—the “dark history” in which humans take one step forward toward collective individuation and then one step backward (or perhaps two steps backward over the past century or two). Primitive fears – the terrors of the night that our ancestors experienced living as weak and slow animals on the savannah—blend with more recent collective memories of societal plagues and massive starvation. If Jung is accurate in his portrayal of the collective shadow, then the sense of awe-fullness and dread-fullness (*numinous*) is indeed something to jar us in our dreams—and usually wake us up in a cold sweat.

Downer dreams

There are “lousy” dreams that portray us not doing much in a difficult situation. We find ourselves as dreamers in a dysfunctional state. We are unable to successfully complete some act—which is the conditions in awake life that produces trauma (Levine and Frederick, 2009) None of the functions that can be served by a dream are being met. The dreamer is often caught in a repetitive cycle with the same images or vignettes repeating itself.

Chaos theorist would suggest that a “strange attractor” is engages, with some distracting theme, image or dream character pulling in all of the energy and attention. The strange attractor often is associated with some major source of potentially anxiety. In avoiding this anxiety, the dreamer “decides” to abandon any attempt to fulfill any functions. The dream might not be anxiety producing and does not evolve into a nightmare. However, the dream does produce one new source of anxiety associated with the resultant sense of helplessness and hopelessness (Seligman, 1992): we can’t even succeed in our dreams.

Frequently, the dream displays rigidity (what psychologists called the *einstellung* effect). An obvious pathway to resolution is ignored and creativity of any sort has abandoned the dreamer. We know that this rigidity is common when we are anxious and when we are pressed for time. If the task we are facing is new, complex, unexpected and ill-defined, the *einstellung* effect is most likely to appear. Given that the “tasks” undertaken in our dreams often are new, complex, unexpected and ill-defined, it is not surprising that this rigidity might emerge. It might indeed be surprising that our dreams are so often quite creative given these conditions.

Boring dreams

The same old thing. Can’t I ever solve this (French and Fromm). This is just the old dream that used to scare me (falling off the cliff), but now is just like watching the same old movie for the 20th time. In my own dream life, I have often created a scenario where I am wandering around an urban slum with great fear of being attacked. I found this dream scenario to be terrifying for a long period of time. Carl Jung (1963) recounts having a similar dream in his autobiography (*Memories, Dreams and Reflections*).

In keeping with one Jungian perspective, the slum would represent an aspect of myself. Jung (1963, p. 198) arrived at the same conclusion regarding his dream: “This dream represent4ed my situation at the time. . . . Everything was extremely unpleasant, black and opaque---just as I felt then.” I suspect that a Jungian would ask me how I was feeling during the period when I was having this recurrent dream. Like Jung, I would have to say this was a dark time in my life—and my anxiety experienced in the slum would relate directly to the anxiety I was feeling about my life.

I am now at a different place in my life. While I still face many challenges, they seem to be of a different character—and no longer resemble an urban slum. As a result, I now, find this urban slum dream to be boring when it still occasionally appears in my dream: “Not this again. I thought that these issues resided in my past.” I usually just sit down on the curb in my dream and wait for this dream to end or for me to wake up. I suspect that I (and Carl Jung) are not alone in producing dreams about our tormented life—and hopefully are not alone in setting these dreams aside as boring remnants of the past when we grow older.

The Generative Power of Dreams

When first describing the remarkable dynamics of dreams, Freud (1900) proposed that dreams can not only operate at many levels, but also represent many different functions at the same time. While many of Freud’s specific interpretations regarding which functions are being served, his portrayal of dreams as highly generative products of the human mind and heart seems to hold up with further study of dreams. We must marvel at the capacity of the dream to bring together and creatively integrate vast amounts of available information

Peremptory Ideation

As I seek to make sense of this extraordinary power of dreams to be generative, I am reminded of the theory proposed by George Klein (1967) many years ago regarding a process he called *Peremptory Ideation*. In essence, Klein is proposing that in our internal world (psyche) we create a specific idea or image that begins to “travel” around our psyche (head and heart) picking up fragments of unconsciously held material (memories, feelings, thoughts). Much like an avalanche (and other forms of what chaos theorist often label “strange attractors”). This train of ideation becomes increasingly rich and emotionally powerful.

At some point, this ideation begins to pull in material from outside the psyche. External events suddenly take on greater saliency (more emotional power and vividness)—and it is because they are now connected to the internal ideation. Klein would suggest that the ideation now takes priority with regard to what is valued, attended to and remembered in the external world. It assumes a commanding (“peremptory”) presence. A positive (reinforcing) loop is created, with the external material now joining the interior material—all clustered around the original (often primitive) ideation.

The process of incubation that I introduced earlier in this essay relates directly to Klein’s theory of peremptory ideation. The problem we are addressing on the backburner is itself one of the “ideations” that moves around our unconscious mind, picking up bits and pieces of past history and old ideas – some of which are related to the problem and others which are seemingly unrelated. Yet, as this ideational “avalanche” grows in size and diversity, the potential for a new solution becomes increasingly possible.

In part this positive outcome is possible because we are processing the problem on our backburner and like in our dreams are piecing together various disparate elements in order to create a seemingly coherent narrative. In taking on this challenging act of construction, we sometimes come up with a creative perspective on and solution to the lingering problem. It is now ready to enter out consciousness—we need only relax, be playful or in some other way become less rigid and defended.

A Generative Dream

To delve further into the generative power of dream, I wish to share one of my own quite elaborate dreams. I had a dream several years ago in which I was going to a company with two other people - probably my brother and my grandson. My brother had work to do at the company and I (and my grandson) were just there waiting for him to finish his work. My grandson had brought his computer with him and was working on it. I forgot to bring a book with me and was regretting not bringing a book (*Principles of Psychology*) written by William James (I was doing a presentation on James in a few weeks). I was frustrated about not having something to read while waiting for my brother (probably about an hour-long wait was anticipated).

I noticed that the room where I (and my grandson) were sitting was adjacent to another room and the door was open to this room. I wandered into this room and discovered that the walls of this room were filled with books from floor way up to the ceiling. It was suddenly an actual room that I had been in for several days while working with the justices in Massachusetts. In this actual room, I

had loved between sessions perusing the wonderful collection of books that were on many topics-I suspected that people in the judicial system donated books to this library- and that no one actually ever picked up and read any of the books- it was all for show-always nice to have a floor to ceiling library when holding a meeting as an organization with a deep, long and prestigious history (as is the case with the Judicial system of Massachusetts - back to John Adams).

In the dream, I spent at least one-half hour wandering through this room, hoping to find my book by William James. Instead, I discovered books of many different shapes and with many different titles, written by many different authors. Some of the book titles and authors were real - others were made up by my dream. I opened several books and marveled at the detailed art of the title page or of graphics in some page in the middle of the book.

I found one book on Gothic history and folk lore with beautiful colored drawings of gothic figures, I was intrigued with this book, and took it from the shelf, holding it while I looked for the William James book. I found one section of books in the lower part of a bookshelf at the far end of the room that were in my field of psychology. I hoped that I could find my William James book there (having not found it earlier in a section of books on American philosophy). I couldn't find my James book among psychology books--but discovered many other "real" books on psychology-books that I either own or know of. It was a remarkable "tour" through the field of psychology.

I ended up returning to the room where my grandson was sitting (with his computer). Other people were now in the room and were holding a meeting at a table located at the other end of the room. I picked up my Gothic book and just as I started to read from it, the dream came to an end.

What a remarkable assemblage of images, real knowledge of books, authors and titles, and blending of real-life information (my work in a library room at the Massachusetts Judicial System office in Boston) and newly created information. It was a long, elaborate dream that revealed something of the power inherent in the production of dreams - the moving of a peremptory stream of ideation through the brain, picking up real information, creating new images and assembling them into a story and a library filled with a vast and diverse array of books. As Jonathan Leonard (1998) noted in the title of his *Harvard Magazine* essay, we are unleashing the genies in our sleeping mind when we produce a dream!

Prophetic and Collective Dreams

There is one other type of dream and function to be considered. It takes us back to an ancient assumption that dreams come from the gods and offer us a prophetic vision of the future. Joseph's dreams in the Old Testament stand out as a popular example of this perspective. This certainly is the most controversial of the functions I have identified. However, even if we don't believe that dreams are venues for divine intervention and prophetic insights, there are many dreams that have been reported to me which offer powerful images of a potential (prophesized) future. This often would involve massive imagery (what I will shortly identify as the generative power of dreams).

These dreams can be quite positive and uplifting. We need only listen to the memorable speech of Martin Luther King when he spoke about having a dream about all people being treated equally and with kindness. There is also King Arthur's dream of the round table. At the opposite end of the continuum there was Momma Rose's dream (in the Broadway show "Gypsy") of her oldest daughter (and later her younger daughter) being great showbusiness stars.

The Dream of Armageddon

Unfortunately, these prophetic images are often quite negative and alarming. We need only read the account of Armageddon in *Revelations*, which brings the Holy Bible to a crashing close. When portrayed in a dream, these accounts of a prophesied doomsday can easily fall into the dysfunctional category to which I am about to turn in this essay. Even if these dreams are not prophetic, they can yield real action in the dreamers awake world. One of my dreamers was handed a very alarming dream in which the entire world was in chaos. There were firestorms (perhaps created by nuclear explosions). A few people survived. They lived at the top of high-rise buildings. In this dream, trees were already re-growing around the burned out remains of the old trees. The grass and other vegetation were starting to bloom again. So, there was some hope in this dream—the high-rise survivors might be able to repopulate the world and the environment can be revised. However, the world must first be virtually destroyed.

In this dream, the people once again become hunter-gatherers. They forage for their food – and eat the remaining food to be found in the canned food that remains in the destroyed supermarkets. {This part of the dream seems to be borrowed from some movies and novels.} The survivors must rebuild society. Our dreamer reported that the dream ended with some hope that important lessons had been learned. Our dreamer noted that she rose in the morning with not only vivid recall of this entire dream, but also mixed feelings of fear and hope—and a vaguely sensed commitment to do something about the existential threat to humankind and the world.

A state of Armageddon might also take place in a dream at a very personal level. We are personally helpless. We are left like a child without any ability to correct an uncomfortable situation. This childlike state is often represented in our dreams by nakedness. Like the emperor we are without clothes and stand bare in front of other people—subject to laughter and scorn. We are embarrassed. Jungians might say that our shadow has ripped off our clothes and have shown us what we truly are when stripped of our pretenses and roles (our persona). This is a source of great terror that most of us have experienced in our dreams. Yet, there is another way in which to view our naked state. We can identify this state as one in which we are being honest. The dream may be reflecting back on itself (the process of meta-cognition to which I will soon turn).

Perhaps, the dream is saying (visualizing) that we have nothing to hide. We stand in front of other people as an open communicator who is to be trusted. We have set aside our persona and are allowing other people to see (at least in the dream) who we really are. Perhaps, at some level, we might even begin to appreciate this stance of clarity and honesty—if we can get past the anxiety.

It is much like how we chose to face a societal Armageddon. This dream-based vision can reveal something important about the state of the community and world in which we live. Once again, if we

can overcome the anxiety, there might be something important to learn. The nightmare of destruction, chaos – and nudity—can become instead a source of learning. We might at this point even listen to Csikszentmihalyi and consider this to be an opportunity for dream-based “flow.”

Collective Dreams

There is also one other challenging view regarding these massive dream-based visions of the future. There are many examples of collective dreams regarding the future. This might relate to the conception of a social unconsciousness that exists in many societies that have a history of collective trauma (such as Israel, Japan, Singapore and Korea). (Hopper and Weinberg, 2019). There are many instances of similar dreams being reported by Jewish survivors of the World War II holocaust. I have personally witnessed the reporting of these similar dreams among residents of Israel. Understandably, these dreams often portray large-scale chaos and destruction. Remarkably, these same dreams are often reported by the next two generations of Israeli citizens. The trauma is carried over in the social unconscious and shows up in dreams.

As noted above, the trauma may be carried in the ideation of those citizens of Israel who survived the holocaust as well as those who know well the stories of holocaust survival and participate in profound commemorative ceremonies (and moments of collective silence). This ideation begins to recruit related emotions and thoughts (related to such matters as childhood fears of abandonment and accompanying senses of hopelessness and helplessness). These ideations can become peremptory – though they are often accompanied by denial and defense. As in Freud’s wish-fulfillment hypothesis, these peremptory ideations might find expression and portrayal only in dreams. There are collective dreams because there is collective ideation.

The Structure and Dynamics of Dreams

Given this assessment of the various functions served by dreams and our appraisal regarding the adaptive (or nonadaptive) role played by dreams in human evolution, it is time finally to turn briefly to the way in which dreams actually work.

Nightly Progression of Dreams

Most of the research (reference) suggests that dreams tend to “regress” during the night. They are likely to be short and rather pale (in terms of both color and theme) early in the night. They usually relate to events that have occurred recently in our life. In fact, these early-night dreams often closely resemble our rambling thoughts that frequently take place just before we fall asleep (called the “hypnagogic” state).

Later at night (and into the early morning) the dreams typically become longer (with the accompanying REM state also extending over a longer period of time). They are also likely to be offered in much greater visual detail and are splashed with vivid color and often a choir of varying landscapes and bizarre juxtapositions. Themes often relate to events that occurred or issues that were prominent at a much earlier point in our life. French and Fromm would suggest that the focal conflicts of our childhood are

likely to most fully addressed in these late-night dreams. Many of the other functions I have identified are also likely to be engaged in these dreams—including Freud’s wish-fulfillment function.

It is appropriate at this point to devote a few words at this point to the pre-sleep process just mentioned. The Hypnogogic state takes place just before falling to sleep. It might involve the distortion of our image of body parts (for example, our foot suddenly appearing to be quite large). Hypnogogic distortions might instead relate to our cognitive processes. We ponder an idea in this sleep-like state. This pondering might return in a subsequent dream.

There is also a post-sleep state called Hypnopompic that occurs as we are slowly waking up. Like the Hypnogogic state, this dream-like state can relate to that which took place during our nighttime dreams. We might even be finishing a dream that was interrupted when we woke up. A dreamer reported to me that their dream of a crime being committed led to a hypnopompic dream-like envisioning of the criminal being brought to justice. This relationship between post-sleep (hypnopompic) content and a previous dream is reportedly more common than the pre-sleep (hypnogogic) introduction of dream-content before falling asleep.

Dream Memories

We know quite a bit about the content of dreams and about ways and times when this content is remembered as we wake up. However, there is a question about dreams and memory that has not yet been answered. Is there a separate memory system for past dreams? This would not seem to be the case since dream content is rarely stored in the hippocampus unless recalled immediately after we wake up. Is this a definitive answer? I know in my own dreams there is often the sense that I am referring in a specific dream to content from a previous dream. Is this merely a bit of fabrication—which we find scattered throughout our dreams?

The Jungians might suggest that memories from one dream are somehow stored in our personal unconscious – or even that what seems to be a personal memory is actually part of the vast repository of shared memories housed in our collective unconscious. I don’t want to go quite this far; however, I do think that somehow memories from one dream are stored for use in another dream. This is particularly likely to occur if we have awoken from the first dream and remembered it. This would mean that content from the first dream has been stored in the hippocampus. It would then be available (as is the case with memories of awake events) for incorporation in subsequent dreams.

We might even bring in Klein’s peremptory ideation at this point by suggesting that memories from the first dream might be “hitching a ride” with the actively engaged ideation (and might have arisen in the first place from this ideation). In catching a ride, memory from the first dream could gather additional saliency and elaboration. This is all speculative. At the very least, this speculation suggests that there is much more to learn about how dreams function.

Multi-Tiered Dreams

We can look at the tiering of dreams in several different ways. First, it is not uncommon for dreams to present multiple segments, with each segment addressing a different (though at some level perhaps

related) topic. One of my dreamers recounts a dream in which she is moving through different “floors” of a department store and then she is in a hotel attending a convention. In each location, she is adjusting to a specific environment, engaging in a specific activity, and interacting with a different group of people. This allows her to address a variety of issues in this dream and potentially use her dream to serve multiple functions. In fact, she talks about insights gained about interpersonal relationships (some of the salespeople and customers at the department stores were represented by family members and friends, and those at the convention were close business colleagues. Her own purchases at the department store told her something about (and challenged her regarding) her priorities in life.

I know of many instances when the dreamer is dreaming about falling asleep and having a dream, waking up and recalling the dream. Thus, we have a dream within a dream—and a dream about dreaming. A variant on this remarkable process is the dream I have had regarding the retelling of a dream to another person. The dream was about an important meeting that I thought actually occurred. In the dream I am telling the other person about my own sudden awareness that the meeting had not really happened. It was only a dream! Yet, this was itself a dream—a dream about a dream. A conversation about a dream that is itself part of a dream. We can certainly get quite clever in what we enact in a dream.

Meta-Cognition

When reflecting on and writing about the dreaming process, I personally wonder what it means to be “in control”, to be “rational” and to be “thoughtful” while in the midst of a dreaming process that is usually anything but controlled, rational or thoughtful. During the waking hours, this process of control, reasoning and thoughtfulness would take place by means of a reflective process called “meta-cognition”. This is a fancy word for describing the ability to rise above a specific situation, observe it from afar, and provide an interpretation of what is occurring. Is it possible for such a higher-order process to take place within a dream? This complex process certainly speaks against the assumption that dreams are always regressive in nature.

Sometimes we can figure out in our dreams that they are dreams. This what’s called *Lucid Dreaming*. While lucid dreaming was once considered a shame, Mathew Walter (2017, p. 233) has offered evidence that this advanced form of dreaming really exists: “scientists . . . gained objective, brain-based proof that lucid dreamers can control when and what they dream while they are dreaming.” Walter (2017, p. 234) goes on to offer a remarkable speculation:

It is possible that lucid dreamers represent the next iteration in Homosapien’s evolution. Will these individuals be preferentially selected for in the future, in part on the basis of this unusual dreaming ability—one that may allow them to turn the creative problem-solving spotlight of dreaming on the waking challenges faced by themselves or the human race and advantageously harness the power more deliberately?

It would seem that Barrett’s committee of sleep might be readily convened to address a whole host of problems. Deirdre Barrett has already noted that some astute executives have taken to scheduling

frequent early afternoon naps during which they can convene their dream-based committee to generate some novel ideas about current problems and plans.

Another meta-cognitive process that might be engaged concerns dream-based reflection. We can pause in our dream to note that things aren't making sense. This person has been dead for many years. These two images don't belong together. We are transported from one setting to another setting but have no magic carpet or time-traveling device to make this happen.

Often at this point we recognize that this is a dream and we either wake up or take no action in the dream and wait for it to come to an end. We might even be able to engage lucidity by changing the direction of the dream or bringing more structure and rationality to the dream. Is this a good thing? When Walter declares that lucidity might be an advancement in dream "technology", I have to ask if, instead, we are destroying a good thing: the wildness and weirdness of the dream. Are we taming a wild beast that should remain wild? Is our Ego becoming too arrogant and failing to do any bargaining and compromise with Id and Superego?

Conclusions

I propose that there are two elephants in the room that we must acknowledge and at least briefly address before closing this overview. First, we must ask: what does this dream mean? Second, we must ask: "what do we do with the insights gained from the dream after it is interpreted? I turn to each of these elephants.

Interpretation of the Dream Content

Dream interpretation guides sell many books and occupy many informal conversations in which a "dream expert" tells their colleague about what their colleague's dream "really means." I would suggest that this step of interpretation be bypassed. We might ask not what the dream means—but instead what function(s) it serves.

If we do insist on doing some interpretive work than the dream's meaning might be based in the symbolic representation of all actors, events and setting in the dream. It is important to recognize that the symbolization can be used in several different ways. As Freud suggested, the symbol can be used to disguise the true meaning of a dream enactment (this enactment fulfilling an unacceptable wish). The symbol can also (or instead) be engaged to convey multiple meanings. The dream becomes "economical" in terms of the small number of symbols being used to convey many meanings. Third, the symbol can be used to enrich the meaning of a dream element—especially the emotional meaning of a dream element. I personally find it interesting (and often insightful) to engage one of the Jungian hypotheses that each character and setting in the dream represents some part of ourselves and that the dream is intended to not only provide insights but also lead us toward integration (Jungian "individuation").

Conversely, we might begin by addressing the straight-forward meaning of the dream. A story is being told and what is the message (or set of messages) embedded in this story. What is the point of the story? What is the closing statement: "and this tells us that . . .") Human beings are natural story-tellers

and these stories can sometimes be true and at other times be something of a “tall-tale.” At the very least, the stories are telling us (and other people) important aspects of our own self and life experiences. In many ways, the one thing that remains constant in our life is the narrative we retain about who we are and where we come from. Dreams might complement these daytime activities. Our campfire tales might be lingering on in our dreams like the fireside coals. We only have to give these story-based coals a little stirring during the night for them to ignite and tell us something about ourself.

We might also engage the dream as part of an ongoing drama regarding our own psychic development. As Fromm and French (1964) have suggested, we might be using some of the dreams (especially late at night) to grapple with childhood-based focal conflicts (such as our independence from parents or our problems in exhibiting anger or acting out aggression). I notice that certain themes that appeared in my dreams for many years no longer occur. Either I have successfully addressed the focal conflicts in my life or my psyche has simply given up trying to help me out: “lets’ forget about these challenges conflicts and just let this old man rest in peace!”

In the Morning

Many of us wake up without any recall of the dreams that were produced by our psyche during the previous evening. As I have already noted, this does not mean that the dreams have no lingering impact. We may still experience the emotional fall-out of one or more of our dreams—a hazy sense of disappointment or even anxiety. Something is foreboding. Perhaps, we wake up with a bit of lightness and vague sense of joy. We don’t know from where it came—but there is an expectation that this will be a good (or bad) day for us. We have a “premonition” that seems to have no obvious choice—is it based on a dream?

There are some mornings (and many mornings for some of us – especially as we grow older) when we can recall our dreams. And there are times during the night when we wake up with full (if temporary) retrieval of a dream that just was enacted by our psyche. At times we are disappointed that the dream can to an abrupt stop. A primitive wish was being fulfilled. Interesting solutions to a vexing problem was just about to be revealed. The entertaining action scene was disrupted just when we were about to complete a heroic act of bravery.

On the other hand, we might feel relieved that the dream came to an end. I personally still have dreams involving my travel to a meeting in the United States or to a workshop I am conducting in another country. Travel delays are encountered, along with long waits for breakfast at an overcrowded hotel. I have forgotten my power points. Or my colleague never shows up when my training program is about to begin. I wake up and realize that I am in my bed at home and that I retired from this “crazy” travel-dominated career a decade ago. I smile and fall back to sleep. Or I get up, wander into the kitchen, and make breakfast for myself (no waiting in a hotel line to eat!).

When we wake up in the morning, there is often not only an emotional residue, but also the remnants of an interesting idea. We must do something, given that this remnant sometimes is tapping on our shoulder when we wake up. It is tempting after waking up to do what was “recommended” in the dream. We might even believe that an action that took place during the dream actually occurred in the

real world. We believe (at least temporarily) that our friend actually was offensive in their interaction with us. We “know” that the new website we designed in our dream is actually in place. I must confess that I was recently the victim of this web-site fiction. Having dreamed in great detail about this design process, I raced to my computer when I woke up to see if the website redesign was actually done. I was disappointed to find that this occurred only in my dream; however, the dream did motivate me to do the redesign work and I did use some of the ideas I recalled from this dream.

Despite the occasional benefit of remembering a plan we executed or recommendation we articulated in our dream, we must remember that its source was a dream. The event never actually took place. Furthermore, it probably offered a quite distorted picture of the real world—given the many dynamics operating in the dream and the multiple functions often being served in the dream. Given our recognition of these two factors, we can benefit from an examination of the functions being served by the dream. We can also benefit from examining the dream-based constructions that took place on behalf of these functions. Plato’s cave and the dream).

A task that is not completed inside the dream might leave a dreamer with a sense of urgency or anxiety/frustration after the dream. However, we don’t know the source of these feelings (since we can’t recall the content of the dream). All of this means that we must be cautious about acting upon the rich insights generated by our dream committee.

This also means that we should not ignore these insights and the hard work done by our dreams to fulfill certain important functions. It seems that there are contradictions when we face the task of making use of our dreams. These contradictions, in turn, parallel some of the amazing contradictions we find in the dreams themselves. I suspect that our world—when awake or asleep—is filled with contradictions. It is in the open, honest space of our dreams that these contradictions are often laid bare. Thank you dreams.

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