



Short Communication

Excessive daydreaming: A case history and discussion of mind wandering and high fantasy proneness

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ARTICLE INFO

Article history:

Received 20 June 2007

Available online 4 December 2008

Keywords:

Mind wandering

Daydreaming

Fantasy proneness

ABSTRACT

This case study describes a patient presenting with a long history of excessive daydreaming which has caused her distress but is not incident to any other apparent clinical psychiatric disorders. We have treated this patient for over 10 years, and she has responded favorably to fluvoxamine therapy, stating that it helps to control her daydreaming. Our patient, and other psychotherapists, have brought to our attention other possible cases of excessive daydreaming. We examine the available literature regarding daydreaming, mind wandering, and fantasy proneness relative to current cognitive and neuroanatomical models of executive attention.

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The subject of this case report is a professionally accomplished 36-year-old female presenting with a long history of excessive and highly structured daydreaming which she states has contributed to considerable distress during periods of her life. The patient is single, does not smoke, drink or use illegal drugs, and comes from a supportive and healthy family, reporting no abuse or trauma in her history. Her distress, though subjectively reported as significant enough to seek and continue psychiatric treatment, remains difficult for us to diagnose.

The imaginative episodes and their content are experienced as neither dysphoric nor intrusive, and the patient has been rigorously assessed for contributing or comorbid symptoms of mood, anxiety, personality, schizotypal, dissociative, and attentional disorders; indeed we have monitored her for over ten years, and have employed all clinical psychiatric measures available to consistently rule out comorbidity or mental status change in her case. We have tenuously viewed her symptoms as indicating possible features of obsessive-compulsive behavior, reflected in the prescription of 50 mg/day of fluvoxamine, an antidepressant believed to influence obsessiveness and/or compulsivity. The medication has been continued for 10 years, as the patient affirms this treatment has made her daydreaming much easier to control. She reports that occasionally the amount of time spent daydreaming will rise and she will increase her dosage of fluvoxamine briefly until it subsides.

Despite having spent substantial periods of time in a self-created fantasy world from her earliest memories, no periods of disconnect from reality were experienced, as the patient says she was always acutely aware that her daydreaming was “just pretend.” Her parents and doctors were aware of, and unconcerned by, her fantasizing behavior, and her school teachers (and later, employers) never noticed that she was anything but normal and productive, displaying no apparent evidence of attention deficit disorder. From age four through 10, the patient would spend periods of free time, sometimes several hours, walking in circles shaking a string, while imagining creative stories in which she was the central focus, i.e., “just like playing school with other kids, but in my head.” Because there was always a finite start and end to this fantasy play, the patient says there was little impact on her academic or social progress; though the compulsive walking/string-shaking ritual became an embarrassment and thus was suppressed by age 12, while the “treasured activity” of her immersive daydreaming became

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her secret. Her main goal from childhood through the present has been to accommodate her “real world” obligations in order to re-enter her compelling imaginary life.

The patient’s strong need to appear normal underscores her industrious capability for “balancing the two worlds” of her external and internal lives. It is notable that she consistently excelled academically by allocating intensely concentrated study periods, as she preferred daydreaming during class time; and her conscientiousness has resulted in her establishing significant social relationships, accomplishment of high grades throughout her educational career, graduation from a top college and an Ivy League law school, and ultimately maintaining a successful high-level career. She realized early in life that creative and engaging activities, such as acting in plays, suppressed her daydreaming significantly, as did the later challenging years of college, law school, and her professional career: she rarely daydreams during working hours, but slips seamlessly into fantasy during walks, commuting, dull conversations or activities, and time alone at home. However, her determination to conceal her daydreaming from friends and coworkers has frequently left her feeling burdened, exhausted, hindered in intimate romantic relationships, and confused as to the nature of her condition. This was her reason for seeking therapy.

Recently, the patient discovered a website containing a surprising number of anonymous postings on the topic of excessive or uncontrolled daydreaming. Numerous posters described patterns and tendencies that appeared remarkably consistent with the patient’s experience (including the original pacing behavior) and emphasized the stress of concealing their imaginary lives and the attendant shame, confusion, and difficulty in controlling their divided realities. After many years of research, this is the first evidence the patient has found to suggest that others may secretly share her often bewildering symptoms. Additionally, some colleagues have mentioned cases of excessive daydreaming similarly uncomplicated by clear psychopathology, though these remain confidential.

Our own MedLine, MedScape, and PsychLit searches employing the terms “daydreaming,” “fantasy,” and “mind wandering” resulted in the return of multiple references to the concept of “fantasy proneness” introduced by Wilson and Barber (1983; citing Singer & Antrobus, 1972; Singer, 1975) as a “set of characteristics of certain people that have a long and intense story of imaginative involvement” or “a deep and profound involvement in fantasy and imagination” (Lynn & Rhue, 1988). Examinations of low versus high fantasy proneness in individual subjects include this trait as a psychological attribute correlated with other phenomena such as hypnotic susceptibility, creativity, dissociation, past trauma, or pathology (Bryant, 1995; Crawford, 1982; Lynn & Rhue, 1986, 1988; Merckelbach, Muris, & Rassin, 2000; Muris, Merckelbach, & Peeters, 2003; Rauschenberger & Lynn, 1995; Rhue & Lynn, 1987; Wilson & Barber, 1983). Individuals who are low on the fantasy proneness spectrum may rarely daydream, while high fantasizers, constituting about 4% of the population, may devote as much as 50% of their waking time to daydreaming (Csikzentmihalyi, 1987). “Most daydreams are ephemeral, lasting just a few seconds; real fantasies, with fully articulated plots, are much rarer, but we don’t know just how rare” (Csikzentmihalyi, 1987). These accounts provide a categorical description to which we can assign our patient, but offer no explanatory insight or understanding of the cognitive processes underlying such a classification.

Our reviewers brought to our attention an extremely valuable body of literature employing empirical examinations of mind wandering, incorporating this universal experience into well-established models of executive attention. In a recent review, Smallwood and Schooler (2006) address mind wandering as a familiar and common phenomenon that nonetheless has been conspicuously ignored by mainstream cognitive psychology. The authors propose that the lack of systematic study regarding mind wandering is due to two specific failures on the part of cognitive researchers. The first failure is presented as a framing issue wherein a general conception of mind wandering has been constrained by varying operational connotations including “task-unrelated thought,” “task-unrelated images and thoughts,” “stimulus-independent thought,” “mind pops,” and “zone outs” (Smallwood & Schooler, 2006). A separate examination (Smallwood, Baracaia, Lowe, & Obansawinb, 2003) explicitly mentions daydreaming: the authors introduce “Task unrelated thought (TUT) as “thought directed away from the current situation, for example a daydream.” Further, the authors note that the experience of TUT refers to situations in which there is reduction or decoupling of the correspondence between the internal and external contexts of thought. We infer, then, that daydreaming is treated as a special case of mind wandering, perhaps more structured and less ephemeral than general inattentiveness.

The second failure of the cognitive psychological community is presented by Smallwood and Schooler (2006) as a problem with the definition of executive control. Executive functions imply volitional, goal-directed, self-regulated, self-initiated, and self-aware operations (Reber & Reber, 2001). Smallwood & Schooler assert that conventional notions of executive or controlled processes require “intent” as a qualifier. The authors argue that attention often slips off-task automatically—thus unintentionally—particularly during undemanding or over-practiced tasks. Daily rituals of showering, bathing, dressing, eating, and even complex activities requiring visual, motor, and navigational decision processes (i.e., driving a car) often achieve automaticity thus permitting considerable mind wandering opportunities. Smallwood et al. (2003) discuss whether encapsulated (limited or bounded attentional allotment) or distributed (parallel attentional allotment) accounts of executive processing best accommodate mind wandering, and incline toward encapsulation. A perceptual capacity for parallel processing across a range of survival-relevant external and internal inputs seems essential from an adaptive perspective; though an alternative capacity for concentrated attention that inhibits extraneous distraction may benefit other strategic activities. Human survival and reproductive fitness most certainly requires both.

Most pertinent to our current presentation, Smallwood and Schooler (2006) challenge conventional accounts of executive control by proposing that mind wandering is a shift in attention that can occur without explicit intention but which is nonetheless a process incorporating “goal-relevant” internal information (e.g., memory, imagination). The presumably finite (encapsulated) resource of short term memory can be monopolized by demanding tasks, while attention to easy or boring

tasks permits some amount of sharing or redirection of short term memory stores toward competitive (parallel) cognitive engagement, with only acceptable performance decrements. Our daydreaming patient presents just this sort of attentional allocation: a life-long habitual or “compulsive” drift into rewarding fantasy, the intentional control of this drift being the major cause of psychological distress.

Another level of exploration merges cognitive with neuroanatomical models of mind wandering. Imaging studies have been recently carried out utilizing fMRI to map a distributed but temporally cohesive “default network” of focal regions that are active during stimulus-independent thought or “SIT” (Mason et al., 2007). This group of researchers explored “how and when the mind generates SIT” by first establishing regional neural signaling correlates of mind wandering; then observing neural recruitment differences within this “default network.” These neural recruitment differences were viewed as indicating individual differences in people’s “proclivity to generate SIT.” Functional imaging was used to define the default network, and revealed tonic activity during resting states in specific cortical regions: parts of the posterior cingulate and the precuneus (Brodmann areas 23 and 31), parts of both lateral cortices (Brodmann areas 40 and 39), the insular cortices, the cingulate (Brodmann area 24), and ventral and dorsal aspects of the medial prefrontal cortex (Brodmann areas 6, 8, 9 and 10). Further experiments correlated activation of default network regions with subjects’ reports of mind wandering, comparing baseline (“fixation”) activation (i.e. high SIT generation) with that of default network activation during subjects’ engagement in practiced experimental tasks and during novel, unpracticed tasks. Images taken while subjects participated in practiced tasks were found to correlate with measures of high SIT production, while images taken during unpracticed, novel tasks correlated with low SIT production.

The authors propose that these results support the hypothesis that “mind-wandering constitutes a psychological baseline from which people depart when attention is required elsewhere and to which they return when tasks no longer require conscious supervision” (Mason et al., 2007). They speculate that generation of SIT may reflect an evolved capability of the brain to divide attention among mental tasks; but add that the results of this procedure may indicate “people’s awareness of their mind’s wandering [meta-awareness] rather than their propensity to engage in SIT.” This work may shed light on the central question of the present report: e.g., relative variation in patterns of daydreaming, possibly including those associated with reported distress.

The subject of the present case study claims to be adjusted to her high level of fantasy proneness. She manages to orchestrate a complex allocation of cognitive and emotional resources toward the competitive requirements of externally- versus internally-driven attentional demands on a daily basis, though at substantial psychological cost. Our question regards the extent to which this case may represent an unrecognized population, i.e., individuals whose mind wandering/daydreaming is experienced as a causative factor in producing psychological distress or functional impairment without meeting criteria for any DSM disorder. The fact that our patient reports a positive response to a medication that influences serotonergic tone may imply neurochemical irregularity; while neuroanatomical peculiarity or dysregulation in major focalization systems as elucidated by Mason et al., (2007) seems very likely. We suggest that systematic investigation of this phenomenon—from positions of both medical and cognitive/behavioral interests—may be warranted.

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