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5 PERSISTING MYTHS SURROUNDING SIGMUND
FREUD’S DREAM THEORY: A REPLY TO
HOBSON’S CRITIQUE OF THE SCIENTIFIC
STATUS OF PSYCHOANALYSIS

10 *Abstract.* This article replies directly to the two cornerstones of Hobson’s leg-
endary transposition of Freud’s dream theory, that is, the theory’s presumed
empirical untestability and its scientific obsolescence or replaceability in the sci-
entific arena. After an outline of Freudian dream theory, empirical data coming
from two research paradigms (“children’s dreams” and “drug dreams”) are re-
ported. From a theoretical-epistemological point of view, the studies show that
15 Freud’s dream theory includes clear “potential falsifiers,” that is, in Popper’s terms,
certain events, which if found to be true, would unequivocally show Freud to be
wrong. This challenges Hobson’s accusation concerning the empirical untesta-
bility of Freud dream theory. From an empirical viewpoint, these studies show
that Freudian dream theory is not even remotely scientifically outdated and obso-
20 lete. The results of these studies are consistent with the cornerstones of Freudian
dream theory (e.g., the hypothesis of dreams as wish-fulfillment, the disguise-
censorship model) and suggest the viability and worth of further investigation in
this arena. Indeed, Freud’s dream theory is alive and useful in explaining the phe-
nomenon of dreams in various fields of application. These authors believe that A.
25 J. Hobson’s dismissal of Freudian dream theory is thus misguided and premature
because, to date, the findings indicate that Freud was essentially correct.

Keywords: dream, psychoanalysis, disguise-censorship model, children’s dreams,
dream research

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Although Hobson's more recent critique of Freud's work is mostly confined to his dream theory, in his latest article "Ego Ergo Sum: Toward a Psychodynamic Neurology" (Hobson, 2013), which summarizes his eponymous forthcoming book, the Harvard psychiatrist goes beyond dreams to express a negative judgment on the whole Freudian theory of mind, human development, and human identity. For Hobson (2013), Freud's hypotheses are "speculative, literary and arbitrary" (p. 144), a viewpoint that nonpsychoanalytic thinkers and even those unsympathetic to Freudian theory do not share (e.g., Grünbaum, 1984; Kandel, 1999).

To address Hobson's charge against psychoanalysis, this article will reply directly to the two cornerstones of Hobson's legendary transposition of Freud's dream theory, that is, the theory's presumed empirical untestability (i.e., the presumed lack of scientific standard) and its scientific obsolescence or replaceability in the scientific arena (Hobson, 1986; 1988, pp. 53–55; 2002, pp. 17, 19; 2006; 2007). In reply to Hobson's critiques of the scientific status of psychoanalysis, we first outline Freudian dream theory before referring to empirical data that does not come from classical psychoanalytic psychotherapeutic settings, but rather from research protocols which any sleep and dream researcher could replicate. In particular, we will refer to two research programs, one on the dreams of young children ("children's dreams"), and another on the "drug dreams" of addicted patients.

Freud's Theory of Dreams: What It Is and What It Isn't

Freud's major thesis is that dreams act as the fulfillment of wishes (Freud, 1900). To appreciate Freud's thinking, we need to understand Freud's conception of the instinctual life of the human organism. Freud (1915) views the organism as being pressured from stimuli that impinge from the external environment as well as stimuli that arise internally, in the shape of somatic "needs" or drives (*Triebe*). Examples of these instinctual drives are hunger, thirst, and sexuality. These drives motivate our behavior and act as noxious stimuli creating tension/unpleasure if left unsatisfied.

In most cases, these drives require interactions with the external environment for their gratification (to satisfy hunger, for example, requires eating food): Thus, the organism needs to know about the environment (e.g., how to find food). Through learning experiences of what is satisfying (tension/unpleasure reducing), the organism learns what is gratifying (i.e., a formation of a mnemonic trace of the object that has led to

satisfaction associated with the excitation produced by the need). This knowledge guides the drive behavior. Once the organism has experienced the gratification of a need, the next time the need arises, the organism will be motivated to reexperience the previously learned state of satisfaction (i.e., reinvestment of the mnestic trace of the perception connected to the original satisfaction). A wish then is a motive, impulse, or desire to reexperience a state of satisfaction experienced previously, when the need, previously satisfied, reappears (see Freud, 1900, pp. 565–566).

The important conceptual point for Freud's argument that dreams are wish-fulfillments is that a "wish" is necessary for mental activity because it provides the *motive force* for it. All mental activity is motivated, and dreams—as another expression of thought—are also motivated. Thus, Freud gives us an "in principle" argument: "... it is self-evident that dreams must be wish-fulfillments, since nothing but a wish can set our mental apparatus at work" (Freud, 1900, p. 567). And again: "In any case the construction of dreams is subject to the condition that it can only represent something which is the fulfillment of a wish and that it is only from wishes that it can derive its psychical motive force" (Freud, 1900, p. 487; cf. Freud, 1916–1917/, p. 226).

Freud (1900) says that children's dreams provide good examples of undisguised wish-fulfillment dreams. So, for example, if hunger arises during the night, the child will dream of eating food (e.g., pp. 130–131). However, such openly wish-fulfilling dreams are also found in adults. For example, Freud observes that people suffering from hunger dream frequently of food; prisoners denied freedom dream frequently of freedom (e.g., Freud, 1916–1917, p. 132). In fact, Freud provides an example from his own experience of a dream that falls within this category:

... there is a dream that I can produce in myself as often as I like—experimentally, as it were. If I eat anchovies or olives or any other highly salted food in the evening, I develop thirst during the night which wakes me up. But my waking is preceded by a dream; and this always has the same content, namely, that I am drinking. I dream I am swallowing down water in great gulps, and it has the delicious taste that nothing can equal but a cool drink when one is parched with thirst. (Freud, 1900, p. 123)

Freud's explanation for this is straightforward: Salty foods cause dehydration and, in turn, dehydration causes a "desire" (or a wish) to drink during

sleep, giving rise to a dream of drinking as an imaginary (hallucinatory) satisfaction: 105

The thirst gives rise to a wish to drink, and the dream shows me that wish fulfilled. In doing so it is performing a function—which it was easy to divine. I am a good sleeper and not accustomed to be woken by any physical need. If I can succeed in appeasing my thirst by *dreaming* that I am drinking, then I need not wake up in order to quench it. This then is a dream of convenience. Dreaming has taken the place of action, as it so often does elsewhere in life. (Freud, 1900, pp. 123–124) 110

Such undisguised wish-fulfilling dreams demonstrate that *not* every dream is sexual, a common misrepresentation of Freud’s theory:

I feel sure that you have heard some time or other that it is asserted by psycho-analysis that every dream has a sexual meaning. Well, you yourselves are in a position to form a judgment of the incorrectness of this reproach. You have become acquainted with wishful dreams dealing with the satisfaction of the most obvious needs—hunger and thirst and the longing for freedom—with dreams of inconvenience and impatience, and also with purely covetous and egoistic dreams. (Freud, 1916–1917, p. 192) 115 120

Disguised/Distorted Dreams

Of course, not all dreams are obviously wish-fulfilling, be it due to their bizarre character or the often terrifying affects associated with nightmares. Freud’s explanation for such dreams requires appreciating that we are 125

Q2 motivated by instinctual drives (*plural*), and so the mind is conceived of as a plurality of motivational sources that may sometimes be in conflict. Conflict is typically understood to be between “improper” wishes, which contradict the ethical or aesthetic ideals of the ego (i.e., the superego imperatives) and are sometimes repressed. There are various types of 130 wishes that may be repressed, but due to cultural considerations, aggressive and sexual wishes typically fall victim: “Lusts we think of as remote from human nature show themselves strong enough to provoke dreams. Hatred, too, rages without restraint. Wishes for revenge and death directed against those who are nearest and dearest in waking life, against 135 the dreamer’s parents, brothers and sisters, husband or wife, and his own children are nothing unusual” (Freud, 1916–1917, p.143). Nevertheless, according to Freud, sexuality is prominent in psychical conflict, even if

not exclusively so: “But at the same time you should bear in mind, as one
 140 of the results of psycho-analytic research, that greatly distorted dreams
 give expression mainly (though again, not exclusively) to sexual wishes”
 (Freud, 1916–1917, p. 192). Thus, one factor contributing to the bizarre
 character of dreams is psychical conflict and what Freud describes as
 “censorship”: “. . . distortion in dreams, which interferes with our un-
 145 derstanding of them, is the result of a censoring activity that is directed
 against unacceptable, wishful impulses. We have not, of course, main-
 tained that the censorship is the sole factor responsible for the distortion
 in dreams . . .” (Freud, 1916–1917, p. 149). The nature of censorship is
 not always clear in Freud’s writings, given some ambiguities surrounding
 150 his typical choice of term “Zensur” (censorship) and the less commonly
 used “Zensor” (censor)—the latter more easily interpreted as a little guard
 who watches over what becomes conscious. However, this is not a fatal
 problem on Freud’s account and a coherent working model of censorship
 as an effect of conflict is available (see Boag, 2006a, 2012). This posi-
 155 tion sees the protagonists as drives in conflict (rather than as a separate
 censor), which accords with Freud’s description that the “the dreamer
 fighting against his own wishes is to be compared with a summation of
 two separate, though in some way intimately connected, people” (Freud,
 1916–1917, pp. 218–219). Likewise, as Freud writes: “It must not be for-
 160 gotten that [bizarre] dreams are invariably the product of a conflict, that
 they are a kind of compromise-structure. Something that is a satisfaction
 for the unconscious id may for that very reason be a cause of anxiety for
 the ego” (Freud, 1940, pp. 170–171).

Dreams then can be thought of as a *compromise* between a wish and a
 165 censoring part of the dreamer comprising the superego demands on the
 ego (i.e., between the repressed and repressing forces). The repressed
 wish becomes distorted to the extent that it no longer arouses anxiety.
 In relation to other mental activities, the same action of compromise is
 also seen in neurotic symptoms, *parapraxes*, and jokes:

170 . . . the same interplay of mental forces is at work in the formation of
 dreams as in that of symptoms. The manifest content of the dream is the
 distorted substitute for the unconscious dream-thoughts and this distortion
 is the work of the ego’s forces of defence—of resistances. In waking life
 these resistances altogether prevent the repressed wishes of the uncon-
 175 conscious from entering consciousness. . . (Freud, 1910, p. 35)

The Empirical Evidence

Having outlined the essence of Freudian dream theory, we now assess the relevant evidence. The first research program discussed refers to a series of studies based on over 900 children aged between three to eight years, which systematically collected over 650 dream reports (Colace, 1997, 1998, 2006a, 2010a, 2013; Colace, Doricchi, Di Loreto, & Violani, 1993; Colace, Tuci, & Ferendeles, 1997; Colace et al., 2000; Colace & Violani, 1993; Colace, Violani, & Solano, 1993). The second refers to a series of clinical and empirical investigations on the drug dreams of more than 200 drug-addicted patients, including a systematic review of the literature on the topic (Colace, 1999, 2000, 2001, 2004a, 2004b, 2006b, 2007, 2009a, 2010b, 2014; Colace, Belsanti, & Antermite, 2014; Colace et al., 2010; Colace, Lagrutta, et al., 2014, pp. 10, 20). All of these studies have shown two types of results: one theoretical-epistemological and the other, empirical. The first result provides evidence that cornerstones of Freud's dream theory (see below), are fully testable through empirical studies. Indeed, these studies show that Freud's dream theory includes clear "potential falsifiers," meaning, in Popper's (1959, 1963) terms, that certain events, which—if found to be true—would unequivocally show Freud to be wrong. For example, given that censorship/superego functions are necessary for disguising the dream's latent contents (Freud, 1900/, pp. 267–268; Freud, 1916–1917/, pp. 142–143), the finding that children with incomplete superego development frequently report bizarre dreams provides unambiguous evidence *against* the general disguise-censorship model of dream. Likewise, the finding that even young children's dreams lack frequent wish-fulfilling content would represent unambiguous evidence contrary to Freud's general hypothesis of dream as wish-fulfillment (for other examples of "potential falsifiers," see Colace, 2010, pp. 51–56; 2004a, pp. 173–174; 2012, p. 168) discussed below constitute effective research paradigms that empirical falsify working hypotheses directly derived from Freudian dream theory. But these are certainly not alone. There are already more recognized research paradigms, such as, for example, the clinico-anatomical study of dreaming (Bischof & Bassetti, 2004; Solms, 1995, 1997, 2000, 2011; Yu, 2006, 2007), the series of studies that investigated the function of dreaming to protect the sleep (for review, see Guénole, Marcaggi, & Baleyte, 2013), and the biological drive frustration paradigm (Bokert, 1968; for review, see Colace, 2009b, 2014). All of these research paradigms show that Freud's dream theory has all of

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the necessary scientific credentials and is formulated in such a way to
215 be actually subject to empirical control.

Thus, we believe, Hobson's accusation that Freud's dream theory cannot be empirically tested should be abandoned: It belongs more to the realm of myths surrounding Freudian theory than to objective scientific reasoning. The charge that Freud's theory cannot be tested appears, for
220 the most part, to be based on a superficial appraisal of Freudian dream theory, rather than any systematic study of Freud's writing. This is not a new or original idea: both a lack of knowledge and/or the oversimplification of Freudian theories has been the reason for frequent misunderstandings as well as hasty dismissals. This fact has been noted by several
225 authors (Boag, 2006b, 2012; Erderlyi, 1985; Grünbaum, 1984; Rapaport, 1960).

Here, we cite two examples of Hobson's misunderstanding of Freudian dream theory. Hobson claims that in psychoanalytic theory there is the conviction that "... only by its own arbitrary methods could any dream
230 be properly understood, and that all dreams can be interpreted via the technique of free association" (Hobson, 2013, p. 146). However, this could not be further from the truth for it fails to take into account nondistorted and openly wish-fulfilling dreams, such as those reported by children (as described in Freudian theory above). As already discussed, Freud describes children's dreams (as well as describing several
235 categories of "childish dreams" occurring in adults) that can be understood without the need of psychoanalytic techniques of interpretation. As Freud writes: "Small children always dream of the fulfillment of wishes that were aroused in them the day before but not satisfied. You will need
240 no interpretative art in order to find this simple solution; all you need do is to enquire into the child's experiences on the previous day (the 'dream-day'...)" (Freud, 1910, p. 34). Freud goes on to write: "No analysis, no application of any technique is necessary in order to understand these dreams... There is invariably some experience of the previous
245 day which explains the dream to us" (Freud, 1916–1917, pp. 126–127); "Any psychologist, knowing nothing of the postulates of psycho-analysis, might have been able to give this explanation of children's dreams. Why have they not done so?" (p. 131). Children's dreams play an essential role in the formulation of Freud's dream theory because they are expected,
250 given the motivational bases of dreaming. In fact, in letters to his friend Wilhelm Fliess in 1897 and 1899, Freud refers to children's dreams since the beginning of the construction of his dream theory (Freud, 1985, pp.

276, 365, 368). Moreover, Freud considered children's dreams essential for explaining the nature of dreams and utilized them to prove the major hypotheses of his theory (see: Freud, 1901, p. 643; 1916–1917, pp. 136, 213, 363; 1910, p. 33; 1918, p. 9; 1925, p. 46). As Freud observes: “From these children's dreams, we can draw conclusions with great ease and certainty on the essential nature of dreams in general, and we can hope that those conclusions will prove decisive and universally valid” (Freud, 1916–1917, p. 126). He further observes: 255
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But consider what a large amount of light has been thrown on things by our examination of children's dreams, and with scarcely any effort: the functions of dreams as the guardians of sleep; their origin from two concurrent purposes, one of which, the desire for sleep, remains constant, while the other strives to satisfy a psychical stimulus; proof that dreams are psychical acts with a sense; their two chief characteristics—wish-fulfillment and hallucinatory experience. (Freud, 1916–1917/1953e, p. 131) 265

We conclude, therefore, that Hobson's claims with respect to the interpretation of dreams demonstrate that he is not in a position to authoritatively comment on Freudian dream theory. 270

Hobson's (2013) further claim that “... important phenomenological distinctions were not made by psychoanalysis, which tended, erroneously, to regard all dreaming as the same” (p. 146) is also largely mistaken. In fact, Freud developed at least three explicit classifications of dreams: (1) on dream distortion/ bizarreness, narrative structure and length (Freud, 1901, pp. 642–643, 645–646); (2) on the origin of wishes (i.e., location in the mental apparatus) that appear in dreams (Freud, 1900, pp. 551, 553–554); and (3) on the way of satisfying wishes (in dreams) (Freud, 1900, pp. 550–551; 1901, p. 674). Nowhere in Hobson's writings are these factors taken into consideration. 275
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What Are We to Make of This?

Any serious evaluation of the scientific status of Freudian dream theory requires a systematic development of the Freudian position and development of logically deduced hypotheses, rather than a pretense to scientific research based on mythical views of the Freudian theory. Precise empirical tests of Freudian dream theory are possible and, more important, necessary, but cannot occur based on an oversimplification of 285

the Freudian position. What we wish for the Freudian model of dreams is not “special treatment,” but rather a normal (i.e., rigorous) treatment of empirical evaluation, the same as for those reserved for other theoretical models in psychology. Only this treatment will tell whether Freud’s theory will have to be relegated to the psychology history books as Hobson, at present wrongly, would like it to be.

Is Freud’s Dream Theory Obsolete?

The second result of the above studies concerns Hobson’s accusation of the scientific obsolescence of Freudian theory. The studies on children’s dreams and on drug dreams clearly demonstrate that Freudian dream theory is not even remotely scientifically outdated and obsolete. On the contrary, a wealth of research demonstrates that Freudian theory provides a fertile framework for investigating dreaming phenomena. In addition, these types of studies indicate the usefulness of Freudian theory for explaining the phenomena studied. In particular, the results of these studies are consistent with the cornerstones of Freudian dream theory and suggest the viability and worthiness of further investigation.

To demonstrate this point, data from the studies of children’s dreams allow us to first make an empirical judgment on the hypothesis of the formal simplicity (i.e., brevity and lack of bizarreness) of dreams reported by preschool children, on the hypothesis of dreams as wish-fulfillment, on the hypothesis on motivational and nonrandom nature of the dream, on the model of disguise-censorship hypothesis, on the hypothesis about the role of the day’s residue in the formation of dream, and on the hypothesis on the function of dreams as the guardian of sleep and as a “safety valve” for the psyche. All of these hypotheses were subjected to strong criticism from Hobson in his 2013 article as well as in his previous writing (see Hobson, 1986; 1988, pp. 53–55, 58–59; 2002, pp. 17, 19; 2006; 2007; Hobson, Hoffman, Helfand, & Kostner, 1987), and yet he fails to take into account such research when making his evaluations.

Although it is not possible to mention every relevant detail here for evaluating Freud’s theory (for this, see Colace, 2006a, 2010a, 2012, 2013; Colace & Violani, 1993; Colace, Violani, et al., 1993), we will mention a few of the most significant conclusions from the point of view of the validity and actuality of the Freudian hypotheses. The dreams of preschool

children accord with Freud's descriptions: Such dreams are short and 325
 mostly without bizarreness. Furthermore, this finding is the same across
 different types of measurements of dream bizarreness and length (Colace,
 2010a, 2012; Colace, Doricchi, et al., 1993; Colace & Violani, 1993; Colace,
 Violani, et al., 1993). Moreover, even Hobson's group has confirmed the
 lack of bizarreness in dreams of young children, yet somewhat unbeliev- 330
 ably, Hobson does not take this relevant information into account in his
 judgment of Freud's theory of dreams. In particular, Resnick, Stickgold,
 Rittenhouse, and Hobson (1994) found among dreams of young children
 (aged four to five), that 66% (27/41) of cases lacked any element of
 bizarreness (implausible/impossible elements: i.e., "inconsistency," "un- 335
 certainty," "discontinuity"), whereas 34% (14/41) of these cases showed at
 least an element of bizarreness. Such findings are consistent with Freud's
 theory that at the age of four to five the superego functions have not yet
 reached full development (see Freud, 1900, p. 127, 553–554; Freud, 1925,
 p. 46). 340

In preschool children there is a high frequency (about 65%) of clearly
 wish-fulfilling dreams (Colace, 2010a, 2013). The origin of these dreams
 (known through systematic observation) for almost half of cases was
 clearly identifiable in terms of facts and experiences of the previous
 day (day residue), just as Freud claims (Colace, 2013). Furthermore, it is 345
 worth noting that in instances when daytime sources dated farther back
 in time to a current dream, in most cases, the memories of those events
 were refreshed on the day before the dreams occurred (e.g., there was
 talk about something that had happened some time ago). This result is
 consistent with the data on the high incorporation of immediate previous- 350
 day events (about 65% of dreams) found in adult dreams (Epstein, 1985;
 Nielsen & Powell, 1992; see also Nielsen, Kuiken, Alain, Stenstrom, &
 Powell, 2004). This contrasts with Hobson's assertion that "When an
 experiential source of dream content could be identified at all (and often
 none could be found), the peak occurrence was six days before dream, 355
 not the day of the dream" (Hobson, 2013, p. 146), data for which there
 is no source cited.

Results further show that children's dreams often fulfill wishes that orig-
 inated in daytime situations where they were associated with an intense
 affective state that was not fully processed psychologically, thus result- 360
 ing in some kind of disturbance. Through the hallucinatory fulfillment of
 these wishes, the dream resolves such associated affective state(s) and

enables an emotional restoration (i.e., the “affective-reestablishment” hypothesis), allowing the child to continue sleeping (Colace, 2010a, 2013).

365 Children’s dreams also prove to be a good “bench test” for the model of the disguise-censorship model (Colace, 2009c, 2010a, 2012; Colace & Violani, 1993; Colace, Violani, et al., 1993). Indeed, the results of these ~~dreams~~ clearly suggest that dream bizarreness is influenced by the development of the superego functions of the individual child (i.e., ~~are~~ consequent on intrapsychic conflict and moral development). Bizarreness in dreams becomes more probable only in those children who show a more complete development of the superego, evidenced by the appearance of the ability to experience a sense of guilt. These results are consistent with the Freudian disguise-censorship model that ascribed the 375 bizarreness of dreams (in general) to the result of a defensive transformation of latent dream contents by the demands of the superego agency in the dreamer’s ego. Furthermore, a new and unexpected indication coming from these studies is that not all of the functions falling within the concept of superego might be involved in the dream censorship mechanism. The superego functions activated in the dream censorship process 380 may be seen as a group of more specific subsets of the superego. In particular, the development of dream censorship functions could selectively require more of the development of those functions pertaining to the moral conscience of the superego rather than those functions pertaining 385 to the ego ideal and positive aspirations of the individual. From this point of view, a study intended as a continuation of the Freudian model would help develop a more precise statement and redefinition of the concept of dream censorship functions as a more restricted subset of functions within the broader range of superego functions.

390 *The Relevance of Evidence From “Drug Dreams”*

The study of “drug dreams,” or the dreams in which drug-addicted patients typically use (or attempt to use) the drugs to which they are addicted (e.g., Christo & Franey, 1996; Hajek & Belcher, 1991; Johnson, 2001; Yee, Perantie, Dhanani, & Brown, 2004; Persico, 1992; Reid & Simeon, 2001; Steinig, Foraita, Happe, & Heinze, 2011), further show that 395 these dreams are frequently a clear wish-fulfillment or wish-fulfillment attempt (Choi, 1973; Colace, 2000, 2004a, 2014; Colace et al., 2010; Colace, Belsanti, et al., 2014; Denzin, 1988, Fiss, 1980; Peters, 2000). Drug dreams suggest an important role of dreams in the regulation of the appetitive and

libidinal drives, such as the craving for drugs, in drug addicted patients. 400
Furthermore, these results are consistent with the libidinal triggering of
dreaming via activation of the mesolimbic-mesocortical dopamine sys-
tem, which is the core of the so-called SEEKING system, (the system that
affective neuroscience has shown to be involved in the instigation of goal-
seeking behaviors and appetitive interactions with the world [Panksepp, 405
1998; see also Ikemoto & Panksepp, 1999; Wright & Panksepp, 2012])
as shown by the clinico-anatomical studies of Solms (1995, 1997, 2000,
2011). However, the implications arising from the study of drug dreams
with a view to evaluating Freud's theory of dreams cover different areas,
such as the concepts of drive and desire, the role of desire in trigger- 410
ing dreams, and the issue of the empirical testability of Freud's dream
model. Several drug dreams, in terms of onset, contents, and formal as-
pects, fall closely into the description of adult dreams of the infantile
type (Colace, 2014). These drug dreams relate to a strong conscious or
preconscious desire for the drug. The patients (pre)consciously desire a 415
drug and, not being able to use it (due to a condition of abstinence or
abrupt cessation of drug use), then dream about it. When describing drug
dreams, some authors make explicit reference to the Freudian concept of
infantile dreams of adults (see Choi, 1973; Colace, 2004a; Makaric, 1979).
As in "infantile" dreams of adults, the fulfillment of drug craving in drug 420
dreams (the use of drugs in dreams) is often direct (Colace, 2014). Freud's
theory of dreams consequently represents a good conceptual framework
for the comprehension of drug dreams. The theory provides us with the
theoretical constructs for understanding the mechanism of the onset and
formation processes of these dreams, their contents, their psychological 425
function, and their clinical usefulness.

Drug dreams are thus a clear expression of motivational vicissitudes.
These dreams, like other types of dreams (e.g., biological drive-related
dreams and wish-fulfillment young children's dreams), (see above), lead
to the reconsideration of Hobson's mechanism of dream activation as 430
"motivationally neutral" (McCarley & Hobson, 1977, p. 1219), or his con-
tention that dreams are merely the byproduct of REM sleep state (i.e., a
forebrain synthesis of ponto-geniculo-occipital random and chaotic stim-
ulation [Hobson, 1988; Hobson, Pace-Schott, & Stickgold, 2000]). Also,
in the recent updates to Hobson's position, dreams are considered to 435
be the mere subjective epiphenomenon of REM sleep, carrying out their
function of maintaining the optimal functioning of consciousness (i.e.,

440 “REM sleep–dream protoconsciousness hypothesis” [Hobson, 2009; Hobson & Friston, 2012]). Nevertheless, Hobson has modified his position on the role of motivation in dreams to actually support the Freudian position. For instance, Hobson (2005) proposes that he has always believed (and in contradistinction to his claim that dreams are motivationally neutral) that dreams “reflect an individual’s personality, concern, feeling, and conflicts . . .” (p. 28), which if anything is what Freud would claim.

445 **Conclusion: Is Freud’s Dream Theory Obsolete? Anything But**

Both studies on children’s dreams and “drug dreams” show that Freud’s theory of the dream is alive and useful in explaining the phenomenon of the dream in various fields of application. Freud’s theory can be subjected to rigorous empirical examination, and such scientific research—and not
 450 the opinions of critics who clearly fail to grasp Freudian theory—will show whether this theory should be abandoned by dream researchers. Hobson’s dismissal of Freudian dream theory is therefore misguided and premature because, to date, the findings indicate that Freud was essentially correct. On the other hand, the formulation of so-called “alternative”
 455 theories to Freud’s theory of dreams, like that of Hobson’s, are useful to the progress and scientific knowledge of dreams, although such theories cannot automatically replace Freud’s ideas without clear demonstration that he is wrong. On the other hand, if—as we have asserted—the Freudian theory of dreams is far from being demonstrated empirically un-
 460 founded, this is even more true for the whole edifice of psychoanalysis. The contributions of the recent neuropsychanalytic approach have great potential for empirical investigation about other Freudian concepts. To dismiss such evidence as “futile attempts to prove that Freud was after all
 465 right” (Hobson, 2013, p. 145) demonstrates both the lack of sophistication and objectivity displayed by Hobson towards Freudian theory.

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