

# The dreams of Aelius Aristides: A neuropsychological analysis of the *Sacred Tales*

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**Summary.** The *Sacred Tales* is a sort of dream diary, written by a famous Greek orator, Aelius Aristides (117-181 CE). The dreams of Aelius Aristides have been object of many psychological interpretations, that have focused on their content, in order to sound out the neurosis and the psychological problems of the orator. The aim of the present work is to analyze the form of Aristide's dreams: while the dream content can tell us something about the psychology of the dreamer, the form of dreams concerns their phenomenology, some typical characteristics related to neurological bases. These characteristics (as bizarreness, detailed images, illusion of being awake...) allows us to recognize an experience as a dream. So, the final purpose of this work is to define if the experiences described by Aristides can be considered genuine or if they are more probably a literary invention. The dreams of Aristides are presented within a comparison with the dreams that occur in *Iliad*, the so called "objective dreams", that present a different and particular phenomenology; at the same time, anyway, as the *Sacred Tales*, the Homeric dreams reveal the extraordinary and important functions that dreams assumed among Greek people and the ancient cultures.

**Key-words.** Dreams, neuropsychology, ancient literature, *Iliad*, Aelius Aristides.

## Introduction

*Sleep and dream.* Since antiquity the human being has recognized different states of consciousness in his daily life, as wakefulness and sleep, and has demonstrated an important interest in the nature and origin of dreams. By the XX century, it became possible to study sleep and dreams in a scientific perspective; in particular, the invention of the electroencephalographer allowed re-

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searchers to observe the electrical activity of the brain during sleep, and to discover the existence of five different stages during this state, that occur, cyclically, many times in a night. Each phase presents different brain waves and particular physiological responses. One of these stages is characterized by an high cortical activity, similar to that observed during wakefulness, by the atony of almost all the muscles of the body, and also by rapid movements of the sleeper's eyes; this stage of sleep is called REM sleep (Rapid Eye Movement). 80% of awakenings from REM sleep stage yield reports of bizarre dreams, often characterized by vivid images and emotional contents. Anyway, dreams are not experienced only during the REM stage; also awakenings from Non-REM sleep provide reports of mental activity, even if they are not so frequent as in the REM stage (only about 10% of people recall dreams), and are quite different from REM dreams; they are shorter, less vivid and emotional, and generally the dreamer presents a more verbal and coherent thinking.

Studying dreams, Hobson (1988) has distinguished between the analysis of dream form and the analysis of dream content: the *form* of dreams is supposed to be universal and physiologically determined, while the *content* is probably related to individual experiences, and can also present differences depending on culture and gender (Domhoff, Schneider 2008). As regards the form of dreams, it is

possible to recognize some characteristics of REM dreams, as the preponderance of sight over the other senses and the presence of detailed and vivid images, the bizarreness, the illusion of the dreamer to be in a real world and the lack of control over the dream contents, the intensification of emotions, the amnesia after awakenings, the presence of a narrative plot and the mental synchronization. Anyway, it's possible for the dreamer to be aware of his/her dream: when s/he becomes aware of being dreaming, s/he can be defined a "lucid dreamer". An important characteristic of lucid dreams is the control that the dreamer has over his/her dream content, that is not possible in normal dreams. In a neuropsychological perspective, according to Hobson (1988) a reactivation of the frontal lobe, normally deactivated during REM sleep, is observed during lucid dreams.

*Dream in Ancient Greece.* In the ancient world, non-ordinary states of consciousness, as dream or trance, had a culturally relevant rule, and were recognized to have a sacral meaning (Fabbro 2010). Ancients tried in different ways to find answers to their questions around dreams, their origins and their sense, coming to several interpretations.

In regards to these considerations, among the Western cultures, the context of the Ancient Greece seems to be particularly meaningful. Interestingly, in Greek there are many terms that refer to dreams, each of them re-

ferring to a different type of dream; first of all, there are two main categories of dreams: *enypnion* and *ònar*; the first is the dream without an oracular meaning, while *ònar* is defined the dream that reveals to the dreamer the divine will, sometimes fragments of destiny. It's a channel to communicate with the supernatural dimension. Within these categories, it is possible to distinguish many types of dreams: the *phántasma* and the *oneirogmos*, the *borama* and the *chrematismós* (Guidorizzi 1988).

Greek people paid seriously attention to their dreams, and turned to interpreters of dreams to understand the meaning of their nocturnal visions. In antiquity, the interpretations of dream was, in a certain way, a "mass phenomenon" (Guidorizzi 2013). Formerly in Omer we can find indications about interpreters, the so called *oneiopóloi* (*Iliad*, 1, 62-63). Another word that is used in a second time to refer to this figure is *oneiokrítes*; it's a laic professional, sometimes in relation with religious environments. An interesting treatise about dream interpretation, that reports the traditional distinction between *óneiroy* and *enypnia*, is that of Artemidorus Daldianus (II century), a work that presents the rules of this practice and a rich record of dreams (Harris-McCoy 2012). There were many techniques to obtain divine and prophetic dreams, but the most frequent practice was the incubation (Dodds 1951; Guidorizzi 2013), aimed, above all, to obtain healings. The medical incubation

spread with the cult of god Aclepius; it consisted in a practice in which the patient, hosted in a cell (*ábaton*) of the temple of Asclepius, received, during a self-provoked dream, the healthy visit of the god, healed the dreamer or prescribed him the necessary remedies. The temples of Asclepius (that of Epidaurus was the most famous) were since the IV century BCE an important destination for many pilgrims, and lots of healing were testified. In conclusion, in the Ancient Greece dreams assumed an important rule by several perspectives; if the multiple functions of dream are testified by the existence of many terms that refer to this experience (Guidorizzi 1988), its significance in the social context and its strong presence in Greek culture is also revealed by some popular practices that find in dream their essential core (Jager 1944; Snell 1953).

We can distinguish between dream form and dream content, and define "formal characteristics" of REM dream those characteristics that are not susceptible to individual or cultural variations, and that we can connect to neurobiological bases. We can also presume that the dreams of ancients could present the same characteristics, or, in other ways, that their dreams were similar to the ours. The Greek literature offers many examples of dream reports. In this perspective, it can be very interesting to analyze some of these dreams in a neuropsychological view (Fabbro 2015). In the present work the *Sacred Tales* by Aelius Aristides will be considered

within a neuropsychological analysis, that will help us to define Aristide's dream reports as referring to real experiences or as a product of fiction. The *Iliad* will be also considered in a comparison with Aristide's dreams.

### Materials and methods

*Materials.* The dreams in the *Sacred Tales* and in the *Iliad*. The *Sacred Tales* (*Hieroi Logoi*) are a sort of "diary of dreams", collected by Aelius Aristides (117-181 CE), a famous Greek orator (see Nicosia 1988). Affected by many illnesses that human medicine seemed to be unable to heal, Aristides turned to god Asclepius, and was admitted to his temple in Pergamum. Here, for several years, Asclepius appeared in dream to Aristides, revealing to him the necessary therapies and giving him benefits. When he left the temple, Aristides continued to be affected by various illnesses, real or imaginary, and the healing god continued to communicate with his protected in dreams. Aristides observed his revelations accurately for all his life, remaining a faithful believer in the healing god. The *Sacred Tales* are an autobiography that consists of six books; aged, Aristides was invited in dream, by his god, to collect his dream reports, testifying Asclepius' prodigious interventions. In this work, Aristides' dreams are collected, with the author's interpretations of them, descriptions of miracles, illnesses, therapies and biographical elements. Many psychological interpretations of the

*Sacred Tales* have been carried out; analyzing the manifest contents of Aristides' dreams, analyses of latent contents of them have been proposed (see Stephens 2012). However, a question that should precede any attempt to psychoanalyze Aristides' personality is: are Aristides' reports referring to real dreams? According to different authors (Nicosia 1988; Harris 2009), it seems that Aristides' dreams could be, for the most part, authentic, even if secondary elaborations cannot be excluded and the text could have been edited with embellishments (Stephens 2012).

Also the *Iliad* offers interesting dream descriptions. It has been observed that Homeric dreams are often autonomous, independent from dreamer's mind, and are described as an objective reality (Dodds 1951; Guidorizzi 2013); in dream, a figure (an divinity, a phantom, a messenger or an *eidolon*) visits the sleeper, staying at his bedside and revealing a message (Rodhe 1894). Then the figure leaves. The sleeper is usually passive, even if sometimes he replies to his visitor, or makes some movements. Another characteristic of Homeric dreams is that the dreamers know they are dreaming: the dream itself, before announcing his message, says to the dreamer: "you are dreaming". The descriptions of dreams are very clear, and generally don't present the incoherence that normally characterizes common dreams. The so called "objective dream" has been interpreted in different perspectives: as

a narrative invention, as a real type of experience, as a cultural product, or as a form of hallucination. The descriptions of the “objective dreams”, that can be considered channels of communication between human and divine dimension, are very similar to that of the divine epiphanies; the only difference consists in the fact that the individual who receives the visit is sleeping (Colantone 2012). Although this typology of dream description is very frequent in the Homeric poems, it is important to underline that this is not the only typology known and described by the authors of these poems (Dodds 1951). The *Iliad* has been chosen for the analysis of dreams. In this poem three dreams are described: the Agamemnon’s dream (II book), the Achilles’ dream (XXIII book) and the dream of Priam (XXIV book). Another dream, that of Rhesus, occurs in the X book; but it consists only of few verses, in which the dream experience is not described. Therefore, in the present work, only the first three dreams have been analyzed.

*Methods. Individuation of the formal characteristics of dreams.* The dreams of Aristides and the dreams in the *Iliad* have been analyzed considering their formal characteristics. Hobson (1988) has distinguished five cardinal characteristics of dreams: illogical content and organization of dreams; intense emotions; fully formed sensory images; illusion of being awake and uncritical acceptance of bizarreness; difficulty of remembering the dream

when it’s over. In the present work, seven characteristics have been distinguished: 1) predominance of sight over the other senses and detailed images; 2) bizarreness; 3) illusion of being awake and reduction of self-awareness; 4) modifications of memory; 5) intensification of emotions; 6) thematic and narrative constancy; 7) mental synchronization.

According to Hobson (1988), dreams are characterized by formed hallucinatory perceptions, in particular visual and motoric. Sight predominates over the other senses; while visual perceptions occur in every dream, and the auditory ones are very frequent, the tactile sensations, as smell and taste and pain perceptions, are rare (Hobson 1992; Desseilles et al. 2011; Nir, Tononi 2010; Schredl, Wittmann 2005). The visual content of dreams could be related to the activity of the occipito-temporal regions (Hobson 1988; Dang-Vu et al. 2005; Desseilles et al. 2011; Braun et al. 1997).

Bizarreness is another characteristic of dreams; improbable or impossible characters, objects and events often characterize our nocturnal experiences, in which the spatial and temporal units are also broken. Hobson (1992) analyzes bizarreness through a binary codification system. In a first stage, the fields in which the bizarreness can appear are considered: a) Plot, characters, objects, action; b) Thoughts; c) Emotions and feelings. Another stage considers the character of bizarreness; it can manifest itself as: 1) Discontinuity; 2) Incongruity; 3) Uncertainty.

Revonsuo and Salmivalli (1995) have found three kinds of bizarreness: 1) Incongruity (an element is incongruous with reality. The element can be defined incongruous when it is internally distorted or incongruous with the context, and also when it has exotic or impossible characteristics); 2) Vagueness (an element is indeterminate); 3) Discontinuity (an element suddenly appears, disappears or transforms). Furthermore, 14 content categories that can present bizarre features have been described: self, place, time, persons, animals, body parts, plants, objects, events, actions, language, cognition, emotions, sensory experiences. According to Hobson (1988), bizarreness could be due to the imperfect integration, during REM sleep, of different and confused internally generated data, in absence of sensorial information that provide a logical representation of the spatial-temporal structures.

In dream, the dreamer is often not aware of being dreaming: s/he thinks that events and characters are real; even when they are very bizarre and improbable, they are accepted uncritically, as they were normal. The dreamer experiences also a lack of control over the events s/he dreams (Desseilles et al. 2011). According to Metzinger (2010), the individual in dreams lacks the “attentional agency”, that is to say, s/he lacks the experience to consciously and intentionally guide her/his own attention and action.

These characteristics could be related to the regional deactivation of

the prefrontal and parietal cortex, in particular with the deactivation of the dorso-lateral prefrontal cortex and the inferior parietal lobule, that are related to attentional functions (Raz, Buhle 2006; Desseilles et al. 2011).

Another cognitive characteristic of dreams concerns memory. Hobson (1988) considers two aspects of memory, during and after the dream. In dream, the dreamer’s mind can be defined “hypermnesic”: memory seems to increase, since remote characters, environments and events that occurred in the dreamer’s life reappear in dream in different and bizarre ways. In contrast with this hypermnesia, after awakening amnesia occurs; more than 95% of dreams seems to be completely forgotten by the dreamer. Both amygdala and hippocampal formation could be involved in the memory processing during REM sleep (Dang-Vu et al. 2005), while dream amnesia could be related to prefrontal and parietal deactivation (Dang-Vu et al. 2005, Nir and Tononi 2010).

Dreams are often characterized by high levels of emotional involvement; anxiety, fear, anger and euphoria are present and intense, and are more frequent than sadness, guilt and shame probably owing to reduced self-reflection (Nir, Tononi 2010; Hobson et al. 2000). The high emotional level of dream contents could be related to the high limbic activity during REM sleep, especially to the activation of the amygdala (Dang-Vu et al. 2005; Maquet et al. 1996).

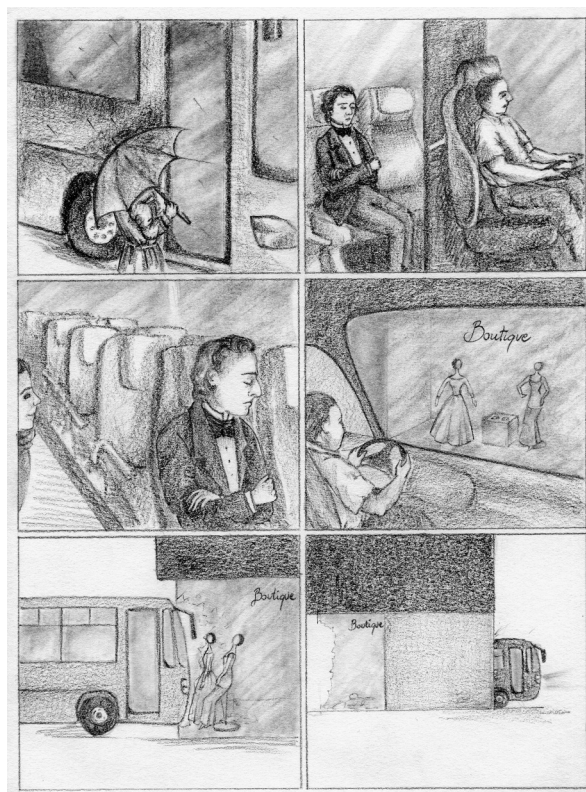


Figure 1. Representation of an original dream of nowadays.

*I dreamed I had to get in the bus, and it was raining. When I was on board, I found Chopin seated in one seat behind the driver. I was all-happy and excited thinking that I could know him. He was handsome and seemed to be melancholy. I don't remember well, but I have also said something. Then the bus crashed into a shop window, where there were bridal gowns, exited from the shop and continued to go on, as if nothing had happened.*

Hobson (1992) observed that, in spite of the bizarreness of dreams, these maintain a strong coherence: every dream has, in a certain way, a sense of completion in the narrative level; in other words, dreams are narrations. The narrative plot, according to Hobson, results from the attempt of the brain-mind to integrate the signals internally generated, giving them a sense.

In dreams, the individual has often the sensation that the mind of the other characters is transparent (Metzinger 2010); when they interact in dream, verbal expressions are limit-

ed, since they can understand themselves through a sort of “mind reading”. The dreamer attributes thoughts, feelings and intentions to the characters, that is to say, s/he has a Theory of Mind (ToM). In line with this observation, activation of the medial prefrontal cortex (mPFC), a region that seems to play a role in ToM (Campanella et al. 2014), has been observed during REM sleep (Maquet et al. 2005). Therefore, the activity of mPFC could be connected with the ability to represent other's mind in dreams (Desseilles et al. 2011).

**Results.** *Analysis of the dreams in Iliad.* Dreams in *Iliad* have been analyzed referring to the characteristics that have been found previously. The analyzed dreams are: the dream of Agamemnon (II, 1-71), the dream of Achilles (XXIII, 62-110) and the dream of Priam (XXIV, 677-695) (Calzecchi Onesti 1990).

The “objective dream” presents vivid images; this aspect clearly emerges both in the dream of Agamemnon and in the dream of Achilles. The dream figure always appears to the dreamer staying over his head. The auditory aspect is preponderant too: the dream figure talks, and his speech is the core of the dream. In line with this observation, interestingly this type of dream does not present any narrative plot, that by contrast characterize “common” dreams; the “objective dream” consists, above all, in the receiving of a message; the dreamer can receive the message passively, as Agamemnon and Priam, or actively, as Achilles, who participates to the dialogue with the dream figure (the specter of Patroclus), and shows emotional participation, crying and stretching his arms to catch the shadow of his dead friend. An important element of this type of dreams concerns the awareness of dreamers; they know they are dreaming, in a certain way, they can be defined “lucid dreamers”; the dream itself reminds them of their state of consciousness: “you are dreaming”.

As regards memory, it doesn’t reveal a labile nature. Anyway, in this



Figure 2. Patroclus appears in dream to Achilles.

perspective the dream of Agamemnon is very interesting: the dream figure addresses Agamemnon recommending him to not forget his message when he’ll be awake; the author of the poem seems to be aware of the difficulty of remembering dreams in wakefulness.

It’s not simple to describe the “objective dreams” in terms of bizarreness; some fields in which bizarreness usually appears (a plot defined by space and time, objects, characters and actions) are not present. The only characters that occur in dreams are the dreamer and the entity that appears to him, and both of them are coherent with reality. In line with this coherence, the messages reveal a logical thinking; the Homeric dream descriptions are particularly rational (Guidorizzi 2013).



Table 1. The dreams of Aelius Aristides reported in the Sacred Tales.

<i>Dream reports (more than 30 words)</i>		<i>Short dream reports (no pui di 30 peraulis)</i>		<i>References to dreams or divine prescriptions</i>		
<i>Dreams</i>	<i>Divine apparitions and prescriptions</i>	<i>Dreams</i>	<i>Divine voices and apparitions</i>	I,9	III,26	
				I,15	III,27	
I,8	III,3-5	I,58	I,7	III,5	I,21	III,28
I,9	III,13	I,71	I,15 (1)	III,23	I,45	III,29
I,10-14	III,21	II,18	I,15 (2)	III,46	I,59	III,32
I,16	III,30-32	II,26	I,28	III,47	I,61-63	III,34
I,17	III,37	II,41-42 (vision in te vegle)	I,29	IV,31	I,65	III,35
I,18	IV,1	III,47	I,32	IV,39 (1)	I,66	III,36
I,19-21	IV,19		I,41 (1)	IV,39 (2)	I,68	III,39
I,22	IV,21		I,41 (2)	IV,40 (1)	I,69	III,41
I,23	IV,28		I,76	IV,40 (2)	I,72	III,45
I,24-26	IV,48-51		II,40	IV,75	I,78	III,46
I,27	IV,54		III,2	IV,89	II,2	III,48
I,30-31	IV,55-56		III,25 (1)	V,8	II,7	IV,5
I,33	IV,57		III,25 (2)	V,35	II,10	IV,6
I,34	IV,58		III,39		II,11	IV,11
I,35	IV,60-61		III,48		II,13	IV,14
I,36-39	IV,62		IV,41		II,15	IV,15
I,40	IV,64-66		IV,45		II,16	IV,24-26
I,42-45	IV,69		IV,59		II,17	IV,29
I,46-49	V,12		IV,81		II,35	IV,30
I,49-50	V,20		IV,106		II,47	IV,38
I,51-52	V,22-24		V,18		II,48	IV,40
I,54	V,44-45		V,31		II,50	IV,44
I,55-56	V,49-52				II,51	IV,52
II,31	V,57-66				II,54	IV,83
VI,2-3					II,55	IV,97
					II,71	IV,102
					II,74	IV,103
					II,75	V,1
					II,77	V,17
					II,78	V,19
					II,81	V,26
					III,6	V,38
					III,7	V,47
					III,20	VI,1

Table 2. Formal characteristics of ten long dreams of Aelius Aristides. The X indicates if each characteristic considered is present in the different dreams.

	I,10-14	I,17	I,22	I,36-40	I,46-49	I,54	IV,48-51	V,22-24	V,44-45	V,57-66
Predominance of sight and detailed images	X	X	X	X	X	X	X	X	X	X
Bizarreness	X	X	X	X	X		X	X	X	X
Illusion of being awake	X	X	X	X	X	X	X	X	X	X
Modifications of memory				X						
Intensification of emotions	X		X	X	X	X	X			X
Thematic and narrative constancy	X	X	X	X	X	X	X	X	X	X
Mental synchronization			X	X	X					

*Analysis of Aelius Aristides' dreams.* 53 orations (I-LIII) have reached us under the name of Aristides (some of them are considered spurious). The critical edition we refer to is that of Keil (1898), that contains the orations XVII-LIII (17-53). In the order of these orations, the six books of the *Sacred Tales* correspond to the numbers from XLVII to LII (47-52), but for convenience we have numbered them from I to VI (1-6).

Aristides' dream reports are not always long and descriptive; some of them are only short descriptions, sometimes he refers to have dreamed a dream or to have received a prescription in dream, but he doesn't describe the dream itself. In Table 1, the dreams of Aelius Aristides are reported, specifying when they are short or long reports (Keil 1898).

"Short dreams" have been considered those dreams that contain no more than 30 words in the Greek version.

Among the long reports, ten

dreams have been considered, and analyzed referring to the formal characteristics found previously. In Table 2, for each analyzed dream, the presence or absence of each formal characteristic is shown.

*Predominance of sight and detailed images.* Aristides' dreams present many and vivid visual descriptions. Other sensory experiences also appear, as auditory (see III, 4), or olfactory (see IV, 49), that are clear too.

*Bizarreness.* Bizarreness is variously present in Aristides' reports, that often are vague and unclear, in which the objects or the environments are not always faithful copies of the original ones (see I, 17), improbable events normally occur (see I, 46) and statues change their appearance (see I, 17).

*Illusion of being awake and reduction of self-awareness.* Aristides never seems to be aware of being dreaming;

he is so involved in his nocturnal adventures, that sometimes he experiences “dreams in dreams” (see I, 17; I, 22; I, 39); every bizarre situation is uncritically accepted after a brief moment of puzzlement (see I, 50; I, 54) and also Aristides makes senseless actions (I, 11). However, he presents a coherent thinking, and appears to be rational and “lucid”; debates, converses, objects, pays attention to the other’s intentions and emotions, tries to understand them and adjusts his behavior according to them.

*Modifications of memory.* Aristides admits to have some difficulties to exactly recall every dream (I, 38); on the other hand, he sometimes recall, in dream, other previous dreams, or elements learned during wakefulness, as poetic verses (I, 12; I, 22; III, 4).

*Intensifications of emotions.* Aristides’ dreams often present intense emotions, and the dreamer is deeply involved in dream events. The most frequent emotions are fear and anxiety on the one hand (I, 10-14; I, 22; I, 54) and happiness, pleasure and excitement on the other hand (I, 36-40; III, 3-5; IV, 48-51).

*Thematic and narrative constancy.* The reports of Aristides shows the evanescence typical of dreams, and unexpected changes of setting; however, they present also a narrative plot and a coherent development.

*Mental synchronization.* As already observed, Aristides has a Theory of

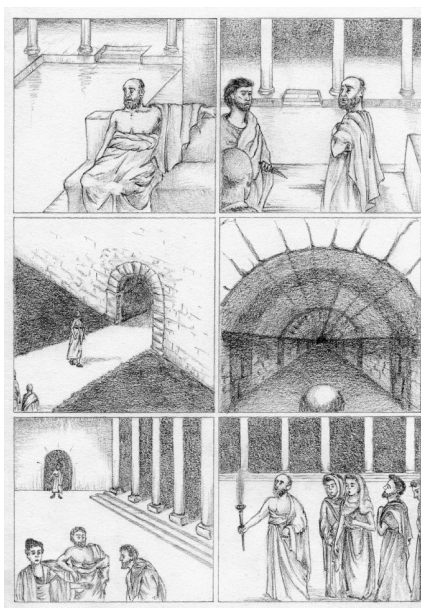


Figure 3. Representation of an Aristides’ dream (I, 22).

*On the twenty-fourth, I dreamed that I was in the warm baths. Some men with daggers and otherwise behaving suspiciously, happened to be near by. Finally some of them approached me, as if desiring some protection, for they said that they were accused by certain men.*

*When I had been surrounded, I was greatly disturbed, neither trusting nor wishing to show that I was distrustful. Then I went along some path, and next there was a very large vault, where I was terribly afraid that they might attack me. But when to my relief I got through, I appeared to be in the city of Smyrna, in the market place, and I considered how many people might be assembled as quickly as possible and I might present a descriptive declamation.*

*And afterwards, I took a torch, and all those in the market place bore torches, and they recited this verse of Euripides (Phoenissae 3): “O Sun, on swift horses, turning thy flame”. For I dreamed I arrived at the rising of the sun (Behr 1968).*

Mind, the capacity of reading other's mind. Moreover, he tries to understand other's mental dispositions in order to adjust his own behavior, both in dangerous situations (I, 22) and in context in which it's very important to cut a fine figure (I, 36-39).

**Discussion.** The Homeric dreams are very different from the type of dream we commonly experience, and don't reflect the formal characteristics we have described. In particular, predominance of sight and bizarreness are not present. It's probable that the dreams in *Iliad* analyzed in this work refer to literary fictions rather than to real dream experiences. It's not easy to describe the "objective dream" referring to the characteristics of the "common dream", not only because it refers to a type of experience *sui generis*, but also because an analysis of it has to consider the literary context, the formulaic character of Homeric poetry and the functions that dreams assume in the development of the narrative plot. At this point, it is interesting to refer to some observations of Dodds (1951) concerning the "objective dream". First of all, the so called "objective dream" is not the only type of dream that the Homeric author knows; a known simile in *Iliad* reveals the familiarity of the poet with the common distressing dreams (*Iliad* XXII, vv. 199-201), even if he doesn't attribute these type of nightmare to his characters.

We have already considered the presence of many terms to refer to

just as many types of dreams. The *chrematismós* was an oracular dream, in which a divine being or a solemn and revered character appeared to the dreamer revealing something about future or giving information about what to do or not to do (Dodds 1951). This type of oracular dream is not frequent nowadays, but according to many testimonies it was very usual among ancients. According to Dodds, the stylization of the *chrematismós* is not only literary; this type of dream is a "culture-pattern" dream, belongs to the religious dimension of the people, although poets have used it as a literary motif adapting it to their aims. The objective dream doesn't concern only the Homeric poems; this type of experience occurs also within the temples of Asclepius, in which the god appears to patients in dream (Guidorizzi 1988).

Concerning the results of this analysis, the ten dreams of Aelius Aristides could be, for the most part, authentic: in effect they reveal the presence of the formal characteristics typical of dreams: predominance of sight over the other senses and detailed images (10/10); bizarreness (9/10); illusion of being awake (10/10); modifications of memory (1/10); intensification of emotions (7/10); thematic and narrative constancy (10/10); mental synchronization (3/10) (cfr. Table 2). Moreover, Aristides shows a genuine faith in his dreams, and a strong certainty about their divine origin. The results of this neuropsychological analysis are co-

herent with many studies, according to which the dreams reported by Aristides in the *Sacred Tales* refer to real dream experiences.

According to Nicosia (1988), Aristides often describes his dreams with great psychological credibility: the images are evanescent and are not rationally controlled, characters, environments and situations change their aspects, special and temporal organization is subverted. Harris (2009) considers Aristides sincere too, underlining his frequent expressions that refers to his difficulty to describe or recall dreams.

This aspect has been also consid-

ered by Gigli (1977), who analyzed the language of the *Sacred Tales*; Aristides' reports could refer to real dreams, even if modifications and selections concerning the material of dream reports cannot be excluded (Gigli 1977), as well as secondary elaborations and embellishments (Stephens 2012).

The study of the formal characteristics of dreams described in the *Sacred Tales* by Aelius Aristides confirms the hypothesis previously proposed (Fabbro 1994, 1995, 1998, 2015) that neuropsychology can give a significative contribution to the analysis of particular aspects of history and ancient and modern literature.

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