

An Overview Perspective on what Déjà Vu is (Part 1)

Déjà vu: Introduction (Section 1)

Abstract

The French term, 'déjà vu', translates literally as "already seen". Neppe's 1979 definition is the universally accepted, carefully derived scientific one: déjà vu is "any subjectively inappropriate impression of familiarity of the present experience with an undefined past." Some historical firsts in the area are discussed, as well as some prioritized information about déjà vu. The books available-Neppe's 4; Brown; Oesterle in German; and Jones- are mentioned, as well as Kohn's unpublished contribution. Studying déjà vu provides us a window into understanding phenomenology, and how careful we must be in interpreting similar phenomena as from the same origin or cause. The detailed study of déjà vu is the study of ensuring we cluster 'like with like' and do not confound this area with "like analyzed with unlike" phenomena.

Keywords: Associative Déjà Vu; Chronic Déjà Vu; Confabulation; Continuous Déjà Vu; Definition; Déjà; Déjà classification; Déjà experiences; Déjà subtypes; Déjà terminology; Déjà vu; déjà vu books; History; Memory; Modern era; Multidimensional scaling; Neppe; Phenomenology; psi; Psychodynamic; Psychotic Déjà Vu; Redintegration; Restricted paramnesia; Schizophrenic Déjà Vu; SPE Déjà Vu; Subjective psi experience Déjà Vu; Temporal Lobe epileptic Déjà Vu; TLE Déjà Vu

We have all some experience of a feeling that comes over us occasionally of what we are saying and doing having been said and done before, in a remote time-of our having been surrounded, dim ages ago, by the same faces, objects, and circumstances-of our knowing perfectly what will be said next, as if we suddenly remembered it.

Charles Dickens in David Copperfield 1850 [1].

Truly remarkable is that strange experience that comes over us suddenly and inexplicably: a feeling that what we are saying or doing or experiencing has been said or done or gone through before in a remote or indeterminate time. Somehow, we sense that the overall gestalt of faces, objects, and everything that surrounds us in the present has surrounded us before, in exactly the same way, as if it were not new. Or we seem to know perfectly what will be said next, or what will happen next, as if the present moment were a living memory, unfolding before our eyes. And most of us know that this is called 'Déjà vu' [2].

But it is not as easy as that. This French term, 'déjà vu', translates literally as "already seen". Yet, no psychological phenomenon has been explained in so many different ways, and none impinges on so many scientific disciplines [3]. And no phenomenon known to psychology and psychiatry has been so misunderstood. Déjà vu has impacted science, history and literature and the multitude of personal descriptions allows excursions into various scientific explanations.

Why Study Déjà Vu?

With this article and its extended links into a series on the topic,

Review Article

Volume 2 Issue 6 - 2015

Vernon M Neppe^{1,2,3,4*}

¹Director, Pacific Neuropsychiatric Institute and Exceptional Creative Achievement Organization, USA

²Professor, Department of Neurology and Psychiatry, St. Louis University, USA

³Executive Director and Distinguished Professor, Exceptional Creative Achievement Organization, USA

⁴Distinguished Fellow of the American Psychiatric Association, USA

***Corresponding author:** Vernon M Neppe, Director, Pacific Neuropsychiatric Institute and Exceptional Creative Achievement Organization, Seattle, Washington, USA, Tel: 206 527 6289; Email: psyche@PNI.org

Received: April 19, 2014 | **Published:** May 26, 2015

we hope to shed some light on the subject and reveal what the sciences of psychiatry, neurology, psychology and phenomenology have learned about this extraordinary experience. The formidable complexity of déjà vu challenges any single explanation [3].

Importantly, studying this area allows us a window into understanding phenomenology, and how careful we must be in interpreting similar phenomena as from the same origin or cause. The detailed study of déjà vu is the study of ensuring we cluster "like with like" and do not confound this area with "like analyzed with unlike" phenomena [4-8].

What is Déjà Vu?

What is déjà vu? For the layperson, it is, technically, "as if I have already seen it before". But in reality, it is far broader [9]. Déjà vu may literally mean 'already seen', but it can also mean already heard, already met, already visited, and numerous other 'already' experiences. It is not "I have done it before and I know exactly when; I recognize that I'm doing it again." The reason why that is not déjà vu is because the recognition results from a real familiarity; whereas with déjà vu, there is the *inappropriate familiarity* of the present experience-it doesn't fit. Déjà vu is subjective, and the past must be undefined: If people specifically remember the origin of the experience, such as in a specific dream, then it is not déjà vu because it is not undefined.

To the general public, déjà vu is a subjective experience of the 'as if' phenomenon [4]. It is "as if" something happened, but should not have. In its usual form, it involves the subjective impression that the present experience has happened before, even though it has not [10]. The resulting familiarity is 'inappropriate': This often results in the perception that this should not have happened as it did-in "normal" individuals this may result in an impression of bafflement and perplexity, but in seizures, for example, the impression may be the sense of differentness; in those who claim psychic experiences, it may be more an awareness of wonderment; and in schizophrenia, it may be the 'awareness' that

something has been revealed. The key is the *inappropriateness of the familiarity*.

Particularly relevant is the role of the brain and special interpretations of the environment in déjà vu. This has led to the major current perspectives relating to the quartet of epilepsy, schizophrenia, psychosis, and subjective psi experience. These reflect different experiences but are all encompassed within a single definition. There is a formal, universally recognized scientific definition of déjà vu, ostensibly quoted in every major article on the subject. It derives originally from Neppe’s PhD (Med) 1981 thesis at the University of Witwatersrand, Johannesburg, South

Africa [11]. Déjà vu is “any subjectively inappropriate impression of familiarity of the present experience with an undefined past.” Every one of these words is relevant and the definition is revisited throughout this series. This definition was formally analyzed in detail in the landmark book on the subject *The Psychology of Déjà vu: Have I been here before?* [3].

To obtain a sense of priorities, we begin with a current summary of the first pertinent instances in the history of déjà vu (Table 1A & 1B). These prioritize understanding how the area came about: particularly intriguing is the early literature and definitions.

Table 1A: Key overview of déjà vu.

36 different kinds of déjà experiences: Only 11 recognized kinds of déjà vu by 1979; 23 new terms developed by Neppe, including two independently by Funkhouser; 4 more esoteric terms from 1885 to 1910 were discovered in 2008 and one later [9].
72 different proposed explanations [13,27,38].
8 different major phenomenological mechanisms (memory, ego-state, ego-defense, time distortion, recognition error, brain firing, subjective psi experience, reality misinterpretation) [3].
5 major possible nosological subtypes ([4 proven by Neppe] Associative; SPE; Temporal lobe epileptic; Psychotic; [4,41] unproven is Alzheimer’s [Moulin]) [31].
Five questionnaires (Neppe 1981 DVQ, and NDVQ 2006; Ito [42] and then Funkhouser [27] on Internet; Sno adapted Neppe: the IDEA) [43].
7 Doctoral theses (4 from 1898 to 1906; then a large gap occurred through to 1981) [11].
5 Scientific books exist on déjà vu (4 by Neppe [3,9,10,35], and 1 by Brown [34]). There is also a book by Oesterle [44] and one by Jones [45].

Table 1B: Occurrence Demographics [46-48].

2/3 of the adult population experience déjà vu at some stage in their lives [39,47].
The lowest documented description of déjà vu is at age 5 [48].
It occurs across all ethnic groups, sexes and ages (from age 5).

Some Historical Firsts On The Déjà Vu Phenomenon

Historical firsts

- a. The historical landmarks on déjà vu are worth noting
- b. The Roman poet, Publius Ovid reported that Pythagoras 2700 years ago supposedly described the phenomenon [12-14].
- c. St Augustine was responsible for the first explanation of déjà vu some 1600 years ago [13], when he said it was due to the influence of deceitful and malignant spirits [11,15-18].
- d. Fifteen hundred years passed, apparently, before anyone else dared or bothered to discuss the subject further. The first book referring to this phenomenon was Sir Walter Scott’s *Guy Mannering* in 1815 [19]. Shortly afterwards, the great English romantic poet, Percy Bysshe Shelley, linked the experience with the dream state [20]. But probably the most famous literary reference to déjà vu came, as indicated, in 1850 with the Charles Dickens quotation above in his novel *David Copperfield*. Dickens [1] may have been speaking from personal experience: It is well known that Dickens himself experienced an intense episode of déjà vu while visiting Italy [21].
- e. The first poetic mention was by Dante Gabriel Rossetti in his beautiful 1854 poem ‘*Sudden Light*’ [22] beginning:
- f. *I have been here before,*

But when or how I cannot tell:

I know the grass beyond the door,

The sweet keen smell,

The sighing sound, the lights around the shore.

- g. The first attempt at scientific explanation of this phenomenon came from Arthur Wigan in his 1844 book *Duality of the Mind*: He explained the phenomenon as delays in the different functions of the cerebral hemispheres [23]. Remarkably, this explanation is still today cited as one. We should keep in mind, however, that this neuro physiological explanation for déjà vu is but one contribution of the 72 different explanations of other theories that have been put forward. Competing explanations have been offered not only by writers and brain researchers, but by psychiatrists, psychoanalysts, medical experts, parapsychologists and psychologists interested in psychopathology. Rhea White, a Consciousness Researcher interested in the phenomenon, remarked ruefully as late as 1973,
- h. “*It is doubtful whether there are many other experiences for which so many explanations have been offered, from so many different points of view* [24].”
- i. The actual term déjà vu was coined by Boirac E in 1876 [25],

technically as '*le sentiment du déjà vu*'. The first serious work in the area may have been a doctoral thesis at the University of Paris, from Bernard Leroy on '*fausse reconnaissance*' in 1898 [26]. Thibault's followed in 1899 in Bordeaux, then two other theses followed in Paris by Tobolowska 1900 and Ables 1906 [27]. Thereafter, there were major gaps and the next two theses came only in 1981: Far the most comprehensive was Neppe's [11] PhD (Med) in South Africa in 4 volumes [11], and the same year saw Arthur Funkhouser's [28] Diploma thesis in Switzerland [28], particularly focusing on dreams and déjà vu. Then followed Jansen's doctorate in 1991 in Germany and one by Sno in 1993 in Holland [27].

- j. The first unified scientific definition was that of Vernon Neppe in 1981, and this definition is now the accepted one [11].

Key information perspective

We now follow with a perspective on key information (Table 1A). For example, there are 36 different descriptions of the experiences, and we have put together 72 different explanations [3,10,29]. There are 8 broader classifications to fit déjà vu into [30], but real research shows 5 different subtypes that have possibly been demonstrated [30,31]. There are currently only a few questionnaires used in research mainly based on the original (first) Neppe Déjà vu Questionnaire which had three portions [3,11,32,33]. There have only been a few doctoral theses [11,26] and scientific books on déjà vu [3,9,10,34,35], but the literature is very diverse in the area [17,36-40].

In this final part of our overview, we examine the occurrence of the phenomenon. This data is based on empirical research. Whereas early literature claimed that déjà vu occurred less often in the elderly, there is insufficient data to justify this claim because the data was obtained by flawed, poor and insufficient screening, sometimes based on a single question [3,9,10].

The Two Ages of Déjà Vu

Déjà vu research so changes in the late 1970s and early 1980s that we could talk of the two ages: Before 1979 and after 1979 [9].

Before the modern era of déjà vu research

Up to 1979, there had been very little formal, controlled research. One of the problems was that there was a lack of adequate definition, and a lack of consistency in screening for and eliciting d déjà vu phenomena. This made data interpretation difficult, heterogeneous, and varied [3,11]. Like was not compared with like, and speculation abounded as to causes and frequency.

By 1979, there was, however, certain, known information on the topic:

- a) The literature supported déjà vu occurring at least once in a lifetime in about two-thirds of ostensibly '*normal*' individuals. This statistic, as of today, still appears to be correct: Most have what Neppe describes as 'Associative Déjà Vu' [35].
- b) Medically, déjà vu was regarded as common in patients with *temporal lobe epilepsy*. This common occurrence is still information taught to students, but, demographically, déjà vu with temporal lobe epilepsy features reflects only a tiny proportion of déjà vu [35,41-49].

- c) Those who reported *subjective psi experiences* frequently reported déjà vu, yet no adequate studies had been developed for this population [41].

These three nosological conditions outline what turned out to be three major subtypes of déjà experience. The fourth is déjà vu in the psychotic. However, whether or not schizophrenics, for example, could actually be diagnosed on the basis of some of their peculiar interpretations of their experiences of déjà vu, was a legitimate question, but there was inadequate substantial data by 1979 even to hazard an opinion.

Another limiting factor before 1979 was that there were only 11 kinds of (what Neppe thereafter termed) 'déjà experiences'. Common terms were, for example, *déjà fait* (already done), *déjà pensé* (already thought) and *déjà raconté* (already told), but it was difficult to describe the déjà phenomenon, because that classification was so incomplete: many more were, thereafter, elaborated.

The Modern Era of Déjà Vu research

Importantly, déjà experiences do not reflect different kinds of déjà vu—they are not different sub-types, instead they are *different circumstances* described as "déjà experiences". To add to the 11 previously described déjà experiences, Dr Neppe in 1981 in South Africa [3] described 10 more kinds, and coincidentally, Funkhouser & Neppe [9] had also independently developed two of these terms in Switzerland. By 2006, Neppe added 9 more and another in 2009. This made 30 known terms but 2006 [9], but then Neppe developed 4 more [4]. And ironically Funkhouser & Neppe [4] subsequently discovered 5 more from a century ago [4]. These are not used today.

For proper research to be performed, another problem needed to be addressed: As of 1979, there were no adequate screening questionnaires for the phenomenon. Most déjà vu studies were based on only a single question and that varied markedly. Neppe developed an 11-point Screening Questionnaire based on the known different déjà experiences, and those answering positively were then subject to a detailed 57 *main* point questionnaire with a *structured interview* resulting in phenomenological analyses of their experiences. The accumulated data were further subdivided and pooled into different phenomenological subtypes. This data was subjected to multidimensional scaling analysis by mean and median column geometry in 22 different dimensions: The four groups were found to separate from one another very well, supporting the expected hypotheses-coincidentally; they were evenly distributed in each of the 4 different quadrants on the median geometry. These four phenomenological subtypes of déjà vu correspond to diagnostic and nosological categories [3,11].

These results confirmed that there are four separate and distinct specific nosological subtypes of déjà vu, occurring in the equivalent population, namely:

- i. Temporal Lobe Epileptic Déjà Vu. This is qualitatively different from other epileptics and temporal lobe dysfunction patients who exhibit the same déjà vu qualities as 'normal' populations.
- ii. Psychotic déjà vu studied in a "schizophrenic" population subgroup where the sheer bizarreness and elucidation of

psychotic thought creates a potential further research area to elicit psychosis in individuals who are supposedly in remission.

- iii. Subjective psi experience déjà vu in those who, using specific subjectively validated criteria, claimed to have 'psychic' experiences, but it neither confirms nor denies the objective validity of their experience. And:
- iv. Associative déjà vu in its most frequent form, occurs in an 'ostensibly normal' group, where the déjà vu is associated with a perplexity and generally not a profound degree of intensity [4,41].

Later Moulin et al. [31] described what may be another distinct subtype of déjà vu in Alzheimer's, which he termed "chronic déjà vu" but the descriptions may not even fit the recognized definition of déjà vu. These five subtypes, though qualitatively different, can theoretically, and sometimes in practice, overlap because people may have more than one subtype. But the Moulin subtype [31], ostensibly linked with Alzheimer's and sometimes even called "continuous déjà vu" possibly does not fit within the definition of déjà vu. Hence the instruments used are important.

But phenomenological research continues. Neppe's questionnaire has been updated by Neppe himself, including all the later described déjà experiences and increasing the demographic base [32,50,51]. It was also modified by Hermann Sno as the IDEA [33,43]. Kei Ito [50] and Funkhouser have also added short screening questionnaires for Internet-based research [51,52], however, Funkhouser's questionnaire [27] is much longer and more extensive than that of Ito [42].

And so, effectively, the modern era of déjà vu research had begun, with the first major phenomenological analysis of this phenomenon. *I emphasize the four major subtypes here to create a sense of priorities because the sections that follow all have this theme. First, when we talk about explanations of déjà vu, these precede these four subtypes. Next, we will move onto the proposed mechanisms and this crystallizes a little more. Then follow research showing the four distinct subtypes. Then follows a discussion of each of the four including other research plus evaluations of where the 36 different déjà experiences fit in. I follow with a re-examination of the concept of 'continuous' or 'chronic' déjà vu.*

The features of the different déjà vu subtypes

The great wealth of personal descriptions personalizes our excursions into these various scientific explanations. Particularly relevant are the different, major current perspectives briefly relating to epilepsy, schizophrenia, psychosis, and subjective psi experience, as well as the common psychological concepts. Of déjà vu, each fits and creates a consistent unit of analysis. But the formidable complexity of the déjà vu phenomenon demonstrates the diversity of explanations. Indeed, every type of experience is very different. In this paper, I discuss illustrative examples [9,10].

Books on déjà vu

The Neppe [11] work was described in his four-volume Doctor of Philosophy thesis in 1981 [11] and was developed into the first academic, scientific book on déjà vu in 1983 [3]. These details and significant newer information were further amplified in the

so-called "Trilogy" of 3 books in 2006 [9,10,35] These four Neppe books are the major, most comprehensive sources for books on the déjà vu phenomenon. Many of the later contributions to the literature are contained in *Déjà Vu: A Second Look* with Neppe and co-editor Funkhouser AT [9] of Switzerland, who has remained a major resource in the area for more than three decades [1,9]. Neppe's four academic books on the topic are all available on www.brainvoyage.com with the three from 2006 being a downloadable Déjà vu Trilogy of books (*Déjà Vu: A Second Look; Déjà Vu Revisited; Déjà Vu: Glossary and Library*) [1]. Importantly, this trilogy series covers all the known subtypes of déjà vu, for example, Subjective psi experience Déjà Vu which involves a subjective description by the subject, just as hallucinations do. Similarly, one has to phenomenologically differentiate the various subtypes of such as how temporal lobe epilepsy differentiates from other organic and psychopathological conditions, such as psychosis, and recognize what is déjà vu, and what is confabulation, for example, as in the Alzheimer patient.

With *Déjà Vu Revisited*, Neppe's goals were to communicate information that was unavailable to most because of the difficulty of obtaining Neppe's 1983 book, *The Psychology of Déjà Vu: Have I Been Here Before?* [3]. That book is long out of print, and yet is the classic and I daresay, key, textbook in the area. Ironically too, it has become a collector's item, given a unique printing error that accompanied that book, the first on déjà vu by the putatively acknowledged leading authority in the area. *Déjà Vu Revisited*, an apt title for a book on déjà vu, became the modern update of this book, allowing availability for others of an otherwise inaccessible manuscript [10].

Déjà Vu: A Second Look has critically important updated information on déjà vu and therefore is possibly the most important of the three books [9].

Déjà Vu: Glossary and Library [35] was born out of necessity because the wealth of French terms and the jargon needed translation. Many terms that needed clarification, and a glossary was needed, particularly as déjà is written with accents in French, so locating data was more challenging [35].

The 2004 book by Alan Brown [34] focuses effectively on the most common subtype of déjà vu, occurring in two thirds of the population, what Neppe has called *associative déjà vu* [53]. But this presents an incomplete picture of the phenomenological vastness of déjà vu, and its multiple subtypes, specific population occurrences and different causes. This lack of differentiation therefore limits the strengths of the Brown book, which, *inter alia*, details novel ways of examining memory and related topics, and this is certainly one key déjà area to examine in ostensibly normal subjects. It also does not adequately cover some of the earlier research, and the other variants of déjà vu, making it less useful than it could have been.

In 2010, Marie Jones produced the book *The Déjà vu enigma* and this has some focus on the subjective paranormal variant, and includes several other so-called "psychic" experiences [45]. Also, welcome is the production of a 2006 book in German on this topic by Gèunter Oesterle targeting the literature and arts in the area [44]. Interestingly, Dr Steven Kohn, an American dermatologist (-1994) produced a lengthy, detailed and erudite, but unpublished,

140-page manuscript “Where or when”: still mystery and magic in the guise of “déjà vu” about 1982 (a partly published version appeared earlier [54]).

The Déjà Vu Phenomenon: Definition and Terminology (Section 2)

Abstract

Déjà vu and the alternative terms to it are discussed. There were six competing French terms, three in German, one in English and one in Italian. The concept of déjà experiences and déjà subtypes is introduced. The phenomenon of déjà vu should be, in its workable definition, accorded the widest possible latitude for research as long as that definition is grounded in rigorous scientific study. On the other hand, any definition must also be dynamic and capable of resilience in the face of new data.

The terms relating to the déjà vu phenomenon are remarkable for their variety:

- a. They derive from a foreign language (French),

Table 2A: Early alternative terms relating to déjà vu.

Term	Author	Year	Language	Comment	English
<i>fausse reconnaissance</i>	Bernhard-Leroy [26] Laurent, Freud [56]	1894	French	Recognition and memory links	false recognition
<i>fausse mémoire</i>	Biervliet, Heymans,	1894	French	Memory linkage	false memory
<i>le sentiment du déjà vu</i>	Boirac [25]	1876	French	Original déjà vu term	the feeling of the already seen'
<i>sensation du déjà vu</i>	Arnaud [57]	1896	French		Sensation of already seen
<i>souvenir du présent</i>	Bergson [58]	1908	French		Remembrance of the present
<i>reconnaissance des phénomènes nouveaux</i>	Bourdon [59]	1893	French		Recognition of new phenomena
<i>falsa intuizione di ricordo</i>	Montesano [60]	1920	Italian		False intuition of remembrance
<i>Erinnerungsfälschungen</i>	Kraepelin	Circa 1890s -1920s	German		false memory
<i>Fälschen Wiedererkennens</i>	Lehmann and Linwurzky	Circa 1890s	German		false recognizing

Déjà Vu-literally ‘already seen’-refers to any of the generic déjà experiences. This is the simple layperson version, but based on the vast literature, the Neppe operational definition of déjà vu, that became universally accepted and used, bears repeating because every word is pertinent in this definition and we need to evaluate every experience in the context of whether or not it conforms to déjà vu: *Any subjectively inappropriate impression of familiarity of the present experience with an undefined past.* As indicated, each one of these words is needed and their application has been carefully analyzed [3,11].

Are the different forms of déjà vu so different that we needed to coin new terms for what we were generically calling déjà experiences? Two key pretenders to déjà vu itself are:

- a) *déjà éprouvé* meaning already experienced, felt, attempted or

- b. Déjà experiences involve more neologisms than in any other study discipline [5], and

- c. The phenomenon has been a major source of personal interest and research for me.

The French term, *déjà vu*, is the most familiar déjà experience. It was originally one of several different competing terms. Some were tongue-tying alternatives conveying relatively equivalent meanings, though with more limited meanings, for example, *fausse mémoire* may be pertinent if this were indeed a ‘false memory’ (Table 2A) [9,55]. These terms have largely been consigned to the dusty archives of forgotten history [10,13,35,38,56-61]. They have not been used because they do not have an advantage over the currently used terms. However, ironically, no-one was using just the plain term *déjà vu* itself without elaborations, and it was abbreviated from *souvenir du présent and sensation du déjà vu* [25,26,57,58,62-65]. Some of these are in French but we even see more general English terms like the “dreamy states” of Crichton-Browne [65].

tried: This fails as a broad generic term because ‘experienced’ here is in the sense of attempted or tried [38] and

- b) *déjà vécu* implying already lived through, fully experienced or recollected. It is an intense experiential term but fails because ‘experienced’ here is the sense of fully experienced or recollected or lived through, so it would exclude much déjà vu.

The Subjective Perception

People, who experience the “sensation” or more correctly the “inappropriate familiarity impression”, for instance, while traveling to an unfamiliar country during a vacation, usually react to the sensation by saying, “It was ‘as if’ I had been there before.” Consequently, déjà vu is not something in which you believe or

disbelieve, in the sense of how you believe in a supreme being, or in good and evil. It is primarily a personal experience, and just as non-objectifiable as subjectively perceiving a voice inside one's head, or of having spontaneous but unprovable intuitive impressions during everyday life. It can be poetically described as the "*present turning into the past.*" But no matter how we conceive of the experience, we cannot really prove it is occurring, since only the person experiencing the sensation knows it is happening. Déjà vu exists solely within the percipient's inner reality [13,38,61,66].

Neppe's term '*déjà experience*' is more correct as it pertains to any of the *déjà* circumstances, not just the seen-the 'vu' [3]. Hearing something for the first time-*déjà entendu*, or the rationalizing of the inappropriate familiarity, for example, by "*I must have dreamt this before*"- *déjà rêvé*, makes '*déjà experience*' more correct than '*déjà vu*' when the *déjà experience* may not be 'seen' at all. Importantly, any of these terms may be applied to any subtype of *déjà* experience, for example, theoretically any of these kinds of experiences can occur in 'normals' or 'temporal lobe epileptics' or 'psychotics' or 'subjective paranormal experients', though some of these terms may be more common in certain subtypes-for example, 'already lived through something' implies it could be more intense than a vague just 'already heard' it before, and this may affect its distribution in different subtypes [10].

Towards a scientific definition: Revisiting déjà vu

Déjà vu is a subjective experience that can be examined on many levels, such as misuse, logical explanation, personal descriptions, historical reviews of philosophical and literary speculations, and various scientific standpoints.

"*It was as if I had been there before.*" What does such a description really simply? This very basic and simple question (yet strangely difficult one to answer) about this fascinating phenomenon led Neppe to research *déjà vu*, examining all the literature and research in the area and developing a strategy for answering the key questions.

Thirty nine déjà experiences; four definite nosological subtypes

Despite the wide scope of the *déjà vu* experiences, the term is often used incorrectly. The purely journalistic applications of '*déjà vu*' sometimes represent a sophisticated and common idiom: "*I get the impression history is repeating itself.*" So it was, when Ronald Reagan once suggested a political innovation originally voiced by a predecessor 20 years earlier, an erudite reporter, and described his sense of "*déjà vu*" in his story. The most extreme form of this popular and frequent misuse recently appeared in an advertisement for a lady's dress. The garment had previously been in fashion, so when it was reintroduced to the fashion world and to the public, the newspaper ads emblazoned this re-occurrence with a headline heralding it as a major event of *déjà vu*. Much of this misuse of the term is simply playful, with no intentions to have any concrete relevance to the experience of *déjà vu* itself [5]. Many times, however, the layperson has been misled to think that certain experiences are *déjà vu* when, in fact, they don't conform to even basic criteria for the phenomenon. A person may, for example, think that when he experiences a present moment in relation to a definite past event he remembers, this is *déjà vu*, when it is most

emphatically not, since one cornerstone of *déjà vu* is that "the past to which the present is related" must be *undefined* [38]. A review of the literature on and study of, the variegated nature of *déjà vu* helps to clarify the abundant potential for mistaken identification of aspects in the nebula of *déjà vu* with *déjà vu* proper. Indeed, one major contributor to these misapprehensions is the fact that *déjà vu* 'proper' is a phenomenon that is remarkably complex and difficult to pinpoint. Another major contributor to *déjà vu* illiteracy is the general dearth of any suitable overview of *déjà vu* which could serve as a pedagogical resource both for the layperson and for the scientist-a deficiency these subsections hope to ameliorate [10,13,61,66].

Whereas the improper use of *déjà vu*-whether playful or sincerely misguided -may come to be regarded by lexicographers as alternative usage and therefore, in effect, socially correct, the scientist must still tread well-worn pathways of applying conventional, research-appropriate definitions to borderline instances of this strangely inappropriate impression. And, although this sort of improper use may seem harmless, scientists will continue to insist on delimiting the use of the term [5]. The phenomenon of *déjà vu* should be, in its workable definition, accorded the widest possible latitude for research as long as that definition is grounded in rigorous scientific study. On the other hand, any definition must also be dynamic and capable of resilience in the face of new data [5].

Déjà Vu Experiences: A Wide Spectrum (Section 3)

Abstract

A historical context to the 36 known déjà experiences is provided. The pre-modern era (before 1979) involved only 11 terms; then came the major active phenomenological research era (1979-1981 of Neppe's work) with 10 more terms; and 9 more déjà experiences till 2006 leading to his trilogy of books; the post-2006 era of terminology includes three new terms, and then one more recent one; with 5 newly discovered newly discovered very old but unused terms. The misuse of the déjà phrases is discussed. The four déjà vu nosological subtypes are introduced.

Déjà vu translates literally as 'already seen' but it is a generic term referring to any *déjà* circumstance. Hence the term *déjà 'experience'* is technically more correct than '*déjà vu*' because it reflects any kind of 'as if' phenomenon not just the 'seen'. But the 'vu' in '*déjà vu*' is technically more correct only when it is an 'already seen' experience [38,67]. Though any of the 36 '*déjà experience*' terms are, in practice or theoretically, applied to different *déjà* circumstances, none are exclusive to any population who have *déjà experiences*. We refer to these populations as 'subtypes': for example in the *subtypes* of what we call 'temporal lobe epileptic (TLE) *déjà vu*' or 'psychotic *déjà vu*', theoretically any kind of *déjà* experiences can occur, though some experiences may be unlikely in some of these populations [3,4,10,11,30,38,41,68] Thus, any kind of *déjà* experience could, theoretically, happen to anyone [50].

Nevertheless, some of these 36 circumstances may be particularly more common in certain subtypes: The average individual may sometimes have, for example, an 'already visited' experience when coming to a new place for the first time: *déjà*

visité. In our data, this is far less likely in, for example, in the pure TLE déjà vu subtype.

These *déjà* experiences can be used as phenomenological points for analyses: if the further description of the *déjà visité* was a vague awareness that this place had been visited before, but the percipient did not know where or when, and was perplexed about it, this would fit what Neppe calls 'Associative déjà vu' provided other criteria do not exist such as psychotic features or epileptic links or specific prediction knowledge [3,4,6,10,11].

On the other hand, some circumstances may be much linked with specific subtypes of déjà vu. For example, in *déjà ésoérique*, there may be special unusual, sometimes idiosyncratic referential significances often linked with the subtype of psychotic déjà vu. Or in *déjà après* -the already after experience- there may be a sequence of stereotypical symptoms sometimes found in temporal lobe epilepsy déjà vu. By comparison, in *déjà rétro-senti*-already sensed backward in time- there may be a reanimation of living into the past-going backward in time-more common in the subtype of Subjective psi experience déjà vu [38].

These déjà vu experiences are all still subjective, not objectively proven, but provide insights into the different ways the generic déjà vu may manifest. To be classified as a déjà vu experience, they must all fit Neppe's (universal) operational definition of déjà vu, namely "any subjectively inappropriate impression of familiarity of the present experience with an undefined past. [3]"

We now examine the 36 different descriptions of déjà vu experience, giving a brief historical perspective about these terms. There are five phases:

- a) The pre-modern era (before 1979) 11 terms
- b) The major active phenomenological research era (1979-1981 of Neppe's work) 10 terms.
- c) The new terms introduced between 1981 and 2006, when Neppe wrote his Trilogy of books (9 terms).
- d) The post-2006 era of terminology (with 3 new terms discovered by Funkhouser and Neppe in 2009-2010) and one more term later.
- e) The newly discovered old but unused terms of the late 19th and early 20th century. (5 terms)

Phase 1: The Pre-Modern Era (before 1979)

By the time Neppe's research began in the late 1970s, there were already eleven known *déjà* terms, all decades old, thought to derive from the 1890s to 1910. One delectable term *déjà voulu*-already desired- was purely theoretical as a true example of déjà vu experience. It remains a silent exception, as it was never described empirically though it could be. Today, we would require such a term to be described in practice before accepting it as a new term.

Almost all the terms had been developed by 1920, and hosts of others, in German and even Italian, and occasionally in English, had been rejected. Somehow, because of the many French contributors and possibly the esoteric nature of French terms in English, the French terms won out [3,39]. Interestingly, even the

pioneers saw it as a false memory and even Arnaud's 1896 official introduction of the term in the *Annales Medico-Psychologique* used the term "Un cas d'illusion du déjà vu ou de fausse memoire [57]."

- a. *déjà vu*-already seen (traditional original global term for all déjà experiences) (originally used by Boirac in 1876) [25].
- b. *déjà entendu*-already heard
- c. *déjà éprouvé* -already experienced, felt, attempted or tried
- d. *déjà fait*-already done
- e. *déjà pensé*-already thought
- f. *déjà raconté*-already recounted [already told]
- g. *déjà senti*-already felt emotionally, smelt
- h. *déjà su*-already known (intellectually)
- i. *déjà trouvé*-already found (met)
- j. *déjà vécu*-already lived through, fully experienced / recollected in its entirety Lalande in 1893 [63].
- k. *déjà voulu*-already desired [already wanted]

We don't know exactly who developed most of these terms. They almost certainly were derived by French writers in the decades of the 1890s and 1900s. Although we know today that déjà vu is a common experience, the experts of yesteryear entertained different ideas. At that point there was certain snobbery to having the experience: The eminent Victorian physician Sir James Crichton-Browne prepared a report on "dreamy mental states" for *The Lancet* (then, as now, England's leading medical journal) [65]. Part of his presentation was devoted to surveying the experience as it is portrayed in the writings of Sir Walter Scott [19], Dante [22], Gabriel Rossetti [22] and Samuel Taylor Coleridge [3,19,22].

"No doubt these dreamy states are very common amongst us at the present day, but it will I am sure be found on enquiry that they are by no means all-embracing, and while they abound among the educated, the refined and the neurotic classes, they are comparatively rare among the prosaic and the stolid masses of our people." [65].

These sweeping and unwarranted generalizations didn't seem to be based on any empirical research, and the situation today hasn't changed much. There exists surprisingly little literature on the incidence of déjà vu reported by the public.

Phase 2: The Major Phenomenological Research Era (1979-1981 Neppe's work)

Between 1979-1981, Neppe described 10 more different kinds of déjà vu experiences in his PhD thesis [11]. These terms were developed after a thorough literature review combined with Neppe's own empirical research. He found that there were several other common kinds of déjà experience that had not yet been categorized [3,4,9] He realized that for legitimate research, we needed a more adequate vocabulary of subtypes of déjà vu.

Neppe proposed ten more 'déjà experience terms'. Not being a native French speaker, he consulted Prof. B. G. Rogers, Professor of French at the University of the Witwatersrand in Johannesburg,

South Africa in 1981 [11]. In this context, Neppe wrote:

“At times the demarcation is artificial, as the déjà experience can coexist in more than one of the above categories [3].”

Sometimes terms are very similar and choices have to be made. So, for example, Neppe’s *déjà rencontré* appears preferable to the older *déjà trouvé* for most ‘already met’ experiences because it usually relates to interpersonal situations, not so much to more inanimate situations of ‘finding’ where *déjà trouvé* would be preferable.

- *déjà arrivé*-already happened
- *déjà connu*-already known (personal knowing)
- *déjà dit*- already said/spoken (content of speech)
- *déjà goûté*-already tasted
- *déjà lu*-already read
- *déjà parlé*-already spoken (act of speech)
- *déjà pressenti*-already ‘sensed’ or ‘precognized’ [as in “knew” it would happen; a presentiment]
- *déjà rencontré*-already met; specifically relates to interpersonal situations
- *déjà rêvé*-already dreamt (Neppe and Funkhouser independently in 1981, and then rediscovered that Fouillee had described it in 1885)
- *déjà visité*-already visited [a locality] (Neppe and Funkhouser independently in 1981)

By a felicitous coincidence, *déjà visité* and *déjà rêvé* were independently developed in theses by Dr Art Funkhouser at the Carl Jung Institute in Switzerland and Dr Neppe in 1981 [11,28]. Both are very relevant terms because they could reflect the subjective variants of subjective psi experiences (SPEs) or “normal” individuals [3,11,38]. However, ironically, in 2010, our extensive searches backward for old unrecognized *déjà vu* terms, Funkhouser and Neppe [17,28] found that “*I must have dreamt it, and now it’s happening*” was applied by Alfred Fouillee for *déjà rêvé* in 1885, even before the official introduction of *déjà vu* by Arnaud in 1896 [57], though after the unofficial use of Boirac in 1876 [25].

Based on the experience of both Neppe and Funkhouser, *déjà rêvé*, *déjà visité* and *déjà rencontré* may be the *déjà* experiences most commonly described [10]. But no specific appropriate epidemiological surveys have been done.

Phase 3: The New Terms of 2006 (9 terms)

Like all neologisms, new *déjà vu* terms must be valuable for their significant empirical or theoretical scientific phenomenological contributions. The older ‘*déjà* experiences’ (itself, a neologism developed by Neppe in 1979) traditionally derived from French terms: We have continued this application but, while it may seem odd, French has been retained as the language for these terms by native English speakers-Neppe and Funkhouser [38].

In 2006, Vernon Neppe began the long, arduous process of

updating his original 1983 book on *déjà vu* (“*The Psychology of Déjà Vu*” [3] to “*Déjà Vu Revisited*” [10]), updating the literature (“*Déjà vu: A Second Look*” with Dr Funkhouser as subeditor [9]) and creating a glossary and bibliography, “*Déjà vu: Glossary and Library*” [35]. This trilogy of books has become the standard scientific reference work on the topic [4].

This terminology review process was fruitful in many ways: This reflected Neppe’s and also Art Funkhouser’s continual updated rethinking of the topic.

Neppe realized we needed nine more kinds of *déjà* experience [38,41]- born from necessity:

- *déjà paradoxe*-already paradoxical: This reflects how the exact *déjà* differentness feels familiar. This emphasizes the phenomenological derealization, common in TLE *déjà vu*.
 - *déjà après*- already after: This reflects the post-ictal/ seizure experiences: This might reflect the sequence of stereotypical symptoms sometimes found in seizures.
 - *déjà ésotérique*-already esoterically perceived: This describes the special significances. It is often psychotic describing the unusual, sometimes idiosyncratic special referential experiences sometimes reflected in the schizophrenic spectrum.
 - *déjà rétrosenti*-already sensed as a reanimation of living into the past going backward in time. This balances *déjà pressenti* in the time distortion context.
 - *déjà halluciné*-already hallucinated: I’ve hallucinated this before. This is a rare intriguing *déjà* hallucinatory experience, not necessarily part of the ‘psychotic *déjà vu*’ subtype as it can have an organic base and may ultimately reflect a new *déjà vu* subtype.
 - *déjà touché*-already touched. This is a physical sensation and completes all the *déjà* experiences of all physical senses.
- Neppe further realized there were three ordinary *déjà* experiences that needed to be included [41] namely:
- *déjà mangé* -already eaten, chewed
 - *déjà musique*-already heard or played specific music or sung
 - *déjà chanté* -already sung

Phase 4 The Post-2006 Era of Terminology (1 New Term)

Neppe then invented one more *déjà* experience in 2009 based on a description that otherwise did not fit [4]. *déjà préconnaître*-already precognized. This describes ‘psychics’ who feel they have had the same future impression before although realistically knowing this was incorrect. After discussion with French scholars, this infinitive term was in this instance preferred by Neppe to the past participle like ‘*préconnu*’. The usage of *préconnaître* attempted to invoke the continuity elements. Thus, there were, at that point, 34 official different *déjà* experiences described. These are not different kinds of *déjà vu*. Again, these are not different phenomenological sub-types likely reflecting different diagnostic

categories. Instead they are different circumstances described as déjà experiences.

Phase 5: The Newly Discovered Old but Unused Terms (5 terms)

Ironically enough, while re-examining the old literature, beginning during August 2009, Funkhouser (and to a lesser degree Neppe) located some unused century-old déjà experiences: They are five, older, rather unusual terms for *déjà vu* experiences, not in use today, deriving from French terms used in the 1890s and 1900s:

- *déjà prévu*- already foreseen; from Bernhard-Leroy in 1898.
- *déjà revécu*-already lived through or already relived; from Peillaube in 1910
- *déjà perçu*-already perceived; from Vignolli in 1894
- *déjà passé* -already passed; from Lalande [4].
- *déjà articulé*-already articulated; from Lamaitre in 1908.

Some of these terms have close relationships with modern terms. *Déjà prévu* may be similar to *déjà pressenti* and we have the English word “previewing”. *Déjà revécu* may be similar to *déjà vécu*: This could imply the subjective experiencing of reincarnation -this does not express opinions on the genuineness of the subjective impression: it may be a subgroup of the *déjà vécu* as the latter term means not only one has already lived through it, but one can fully experience and recollect it entirely. *Déjà vécu* would reflect both a relived experience and a recollected-entirely experience [4,5]. If we had modern day examples they would be directly incorporated into modern use. Certainly, they are useful. Should we be using these terms, or is there not a place for duplicating information? This could be debated. Rather ironically, too, the term *déjà rêvé* developed as “already dreamt” by both Neppe and Funkhouser in 1981- “*I must have dreamt it, and now it’s happening*”- was produced in our search backward: a mention of it by Alfred Fouillee in 1885 [4].

Technically, therefore, we have 36 terms, of which 31 ‘déjà experiences’ are still used. Any of the numerous new terms in thinking and research about déjà vu must be valuable with significant empirical or theoretical scientific contributions.

Clearly, there is substantial misuse of the déjà term in common usage. Most commonly, the critical metaphor relates to a previous event that was well-remembered by all, such as when the same event happens again in sport, or to a politician. Obviously, déjà vu is frequently employed inappropriately in these misleading journalistic or metaphorical contexts, for example, and is scientifically inappropriate.

There have also been jokes linked with it. These are for fun, not science. They serve only one purpose: humor. They are neither parsimonious, nor the simplest most logical explanation, nor are they educational or scientific [5]. They are added here as examples of the lighter side of déjà vu [69] - jokingly what it isn’t:

- a. *Déjà boo: The feeling that I’ve been frightened like this before*
- b. *Déjà coup: The feeling my government has been overthrown*

like this before.

- c. *Déjà do: The feeling my hairdresser has given me this cut before.*
- d. *Déjà eau: the feeling I’ve smelled this perfume before.*

These terms are unacceptable neologisms because they serve only one purpose -humor. They serve no educational purpose. By contrast, the scientific approach has postulated numerous logical scientific explanations for the mechanism of déjà vu. For completeness in our terminology discussion, we move briefly from the 36 kinds of *déjà* experiences. These are used in questions pertaining to the different déjà subtypes. These terms therefore have become part of the most comprehensive questionnaire on the topic [32,50]. Otherwise, we may remain unaware of their presence particularly in patients with four other Neppe terms reflecting these subtypes:

- i. *Psychotic Déjà Vu*,
- ii. *Temporal Lobe Epileptic Déjà Vu (TLE déjà vu)* specifically in temporal lobe seizures)
- iii. *Subjective psi experience Déjà Vu* in subjective paranormal experiences, and
- iv. *Associative Déjà Vu* in ostensible normal’s- the common garden subtype in ordinary individuals.

These, for historical completeness, are the 4 legitimate, neologisms reflecting the different nosological categories-the subtypes-of déjà experience Neppe described. Each of these four occurs with specific features, in different subpopulations, and are nosologically distinct, implying possible different causalities for each [40,41,70].

Neologisms have relevance and meaning. The different subtypes of déjà experience incorporate all these different new terms allowing for further research in this fascinating area. We welcome any descriptions of new circumstances for déjà experiences. However, this must be accompanied by as much detail as possible and attested by the percipient to have occurred exactly as described.

Acknowledgement

Our grateful thanks to Drs Art Funkhouser, for his great feedback, review and editorial suggestions. Also, thank you to Dr Takashi Kusumi and Dr Edward Close, inter alia for peer-review, and to Jacqueline Slade for proofing and editorial contributions. I appreciate, too, the feedback of Suzan Wilson.

References

1. Dickens C (1950) David Copperfield. Bradbury and Evans, London, UK.
2. Neppe VM (2015) Déjà vu: An overview of a fascinating subjective experience. IQ Nexus Journal 7(1): 7-56.
3. Neppe VM (1983) The Psychology of Deja Vu: Have I been Here Before?. Witwatersrand University Press, Johannesburg, South Africa.
4. Neppe V (2010) Déjà vu: origins and phenomenology: implications of the four subtypes for future research. Journal of Parapsychology

- 74(1): 61-98.
5. Neppe VM (2009) Have I truly already read all this? Or is this déjà lu? The phenomenological approach to Neologisms and importing French idiom to boot (Part 4). *Telicom* 21(2): 46-47.
 6. Neppe VM (2011) Ensuring homogeneous data collection for present and future research on possible psi phenomena by detailing subjective descriptions, using the multi-axial A to Z SEATTLE classification. *Neuroquantology* 9(1): 84-105.
 7. Neppe VM (1986) Déjà vu: phenomenological and diagnostic relevance in temporal lobe epilepsy. *Epilepsia* 27(5): 608.
 8. Neppe VM (2011) Models of the out of body experience: a new multi-etiological phenomenological approach. *NeuroQuantology* 9(1): 72-83.
 9. Neppe VM, Funkhouser ATs (2006) *Déjà Vu: A Second Look*. Brainvoyage.com Brainquest Press, Seattle, Washington, USA.
 10. Neppe VM (2006) *Déjà Vu Revisited*. Brainvoyage.com, Brainquest Press, Seattle, Washington, USA.
 11. Neppe VM (1981) A study of déjà vu experience: thesis. Unpublished doctoral thesis, University of the Witwatersrand, Johannesburg, South Africa.
 12. Ovid P (2015) *Metamorphoses Book XV* (quoting Pythagoras).
 13. Neppe VM (2006) When is déjà vu déjà vu?, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT (Eds.), Brainvoyage.com, Seattle, Washington, USA, 1: 2-20.
 14. Funkhouser AT (2006) Déjà vu in Western history: A review, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT (Eds.), Brainvoyage.com, Seattle, Washington, USA, 2: 21-30.
 15. Saint-Augustine: On the Trinity. 415 (circa).
 16. Augustine S. On the Trinity, in, Vol. Book XII. pp. Chapter XV.
 17. Funkhouser AT (1983) A historical review of déjà vu. *Parapsychological Journal of South Africa* 4(1): 11-24.
 18. Kohn SR (1982) Déjà vu: the neurological, psychiatric and literary concepts of a phenomenon (unpublished manuscript). Hackensack, New Jersey, USA.
 19. Scott W (1815) *Guy Mannering or The Astrologer*. Ballantyne & Co., Edinburgh, Scotland.
 20. Shelley PB (1880) Speculations of metaphysics, in *The Works of Percy Bysshe Shelley in Verse and Prose*. Reeves & Turner, London, UK, pp. 297.
 21. Dickens C (1846) *Pictures from Italy*. Bradbury and Evans, London, UK.
 22. Doughty O (1957) Rossetti, Dante Gabriel. *Poems: An Offering to Lancashire*.
 23. Clarke B (1987) Arthur Wigan and "The Duality of the Mind": Cambridge University Press, Cambridge, England.
 24. White RA (1973) The mystery of déjà vu: Who knows where or when? *Psychic* 4(5): 44-49.
 25. Boirac E (1876) Note without a Title. *Révue Philosophique* 1: 430-431.
 26. Bernhard-Leroy (1898) *Étude sur l'illusion de fausse reconnaissance*. Thesis, Faculté de Médecine de Paris.
 27. Funkhouser AT (2006) Explanations for déjà experiences.
 28. Funkhouser AT (1981) *Deja Vu: Deja Reve*. Unpublished diploma thesis, CG Jung Institute, Küsnacht, Switzerland.
 29. Neppe VM (2006) A special note to the reader, in *Déjà Vu Revisited*. In: Neppe VM (ED.), Washington, USA, p. 15.
 30. Neppe VM (1983) The different presentations of the déjà vu phenomenon: New research, in *Parapsychological Journal of South Africa* 4(2): 124-139.
 31. Moulin CJ, Conway MA, Thompson RG (2005) Disordered memory awareness: recollective confabulation in two cases of persistent déjà vécu. *Neuropsychologia* 43(9): 1362-1378.
 32. Neppe VM (2006) The New Neppe Déjà Vu Questionnaire-2006 in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT. Brainvoyage.com, Seattle, Washington, USA, pp. 235-290.
 33. Sno HN, Schalken HF, de Jonghe F, Koeter MW (1994) The inventory for déjà vu experiences assessment. Development, utility, reliability, and validity. *J Nerv Ment Dis* 182(1): 27-33.
 34. Brown AS (2004) *The déjà vu experience*. Psychology Press, New York, USA.
 35. Neppe VM (2006) *Déjà Vu: Glossary and Library*. Brainvoyage.com, Seattle, Washington, USA.
 36. Neppe VM (2006) Subjective paranormal déjà vu, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT (Eds.), Brainvoyage.com, Seattle, Washington, USA, pp. 110-120.
 37. Neppe VM (1983) The different presentations of the déjà vu phenomenon: New research. *Parapsychological Journal of South Africa* 4(2): 124-139.
 38. Neppe VM (2006) Does the definition of déjà vu withstand a quarter of a century of research?, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT (Eds.), Brainvoyage.com, Seattle, Washington, USA, pp. 142-163.
 39. Funkhouser AT, Neppe VM (2006) Update on the incidence of déjà vu: an appendix, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT (Eds.), Brainvoyage.com, Seattle, Washington, USA, pp. 79-91.
 40. Neppe VM, Funkhouser AT (2006) Modern research on déjà vu: A brief, selected update of recent ideas, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT (Eds.), Brainvoyage.com. Seattle, Washington, USA, pp. 189-201.
 41. Neppe VM, Bradu D (2006) Déjà vu subtypes: four challenges for researchers, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT (Eds.), Brainvoyage.com, Seattle, Washington, USA, pp. 52-67.
 42. Ito K (2000) The déjà vu phenomenon in a non-clinical population – an online research study with personality perspective. University of Buckingham, Buckingham, London, UK.
 43. Sno HN (2000) Déjà vu and jamais vu. In: Berrios et al. (Eds.), *Memory disorders*.
 44. Oesterle G (2003) Déjà-vu in *Literatur und bildender Kunst*. München.
 45. Jones MD, Flaxman L (2010) *The déjà vu enigma: A journey through the anomalies of mind, memory and time* Bay City, New Page Books, Michigan, USA.
 46. Neppe VM An aside-the age debate: the age factor through the déjà vu retrospectoscope, in *Déjà Vu: A Second Look*. In: Neppe VM &

- Funkhouser AT (Eds.), Brainvoyage.com. Seattle, Washington, USA, pp. 92-95.
47. Neppe VM (1983) The incidence of déjà vu, in *Parapsychological Journal of South Africa* 4(2): 94-106.
 48. Neppe VM (1983) Age and the frequency of déjà vu. *J Parapsychology* 47(2): 182-184.
 49. Neppe VM (1981) Is déjà vu a symptom of temporal lobe epilepsy? *S Afr Med J* 60(23): 907-908.
 50. Neppe VM (2006) Questioning the questionnaires: déjà vu in perspective, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT (Eds.), Brainvoyage.com. Seattle, Washington, USA, pp. 223-234.
 51. Neppe VM (2007) The New Neppe Déjà Vu Questionnaire-2006, in Brainvoyage.com. Seattle, Washington, USA.
 52. Funkhouser AT (2006) Déjà experience research.
 53. Brown AS (2004) *The Déjà Vu Experience: Essays in cognitive psychology*. Psychology Press, New York, USA.
 54. Kohn SR (1979) "Where or when": still mystery and magic in the guise of "déjà vu". *J Med Soc N J* 76(2): 101-104.
 55. Neppe VM (2015) The déjà vu phenomenon: Towards a definition and beyond (Section 2). *IQNexus Journal* 7(1): 15-18.
 56. Freud S (1924) *Zur Technik der Psychoanalyse und zur Metapsychologie*. Internationaler Psychoanalytischer Verlag, Vienna, Austria.
 57. Arnaud FL (1896) Un Cas D'illusion Du Déjà Vu Ou De Fausse Mémoire. *Annales Médico-Psychologique* 3: 455-471.
 58. Bergson H (1908) Le souvenir du présent et la fausse reconnaissance. *Révue philosophique* 66: 561-593.
 59. Bourdon B (1893) La reconnaissance de phénomènes nouveaux. *Révue Philosophique de la France Et de l'Etranger* 36: 629-631.
 60. GF M (1920) Falsa intuizione di ricordo: Studi di Psicopatologia generale. *Quaderni di Psichiatria*, Geneva, Switzerland.
 61. Neppe VM (2006) When is déjà vu not déjà vu? A second look at related phenomena, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT. Brainvoyage.com. Seattle, Washington, USA, pp. 178-188.
 62. Jackson JH (1888) A particular variety of epilepsy "intellectual aura", one case with symptoms of organic brain disease. *Brain* 11: 179-207.
 63. Lalande A (1893) Sur les paramnésies. *Révue philosophique* 36: 485-497.
 64. Dugas L (1894) Observations Sur La Fausse Mémoire. *Révue Philosophique* 38: 34-45.
 65. Crichton-Browne J (1895) Dreamy Mental States. *Lancet*: 1-5 & 73-75.
 66. Neppe VM (2006) Uncovering the complexity of déjà vu, in *Déjà Vu: A Second Look*. In: Neppe VM, & Funkhouser AT (Eds.), Seattle, Brainvoyage.com, Washington, USA, pp. 31-35.
 67. Neppe VM (2015) Déjà experiences and terminology (Section 3). *IQ Nexus Journal* 7(1): 19-24.
 68. Neppe VM, Funkhouser AT (2006) The qualitative differentiation of déjà vu: does it still hold a quarter of a century later?, in *Déjà Vu: A Second Look*. In: Neppe VM & Funkhouser AT (Eds.), Washington, USA, pp. 202-222.
 69. Mineart S Bell, Bridget: Déjà. What?, Déjà vu rhymes.
 70. Neppe VM (1983) The different presentations of the déjà vu phenomenon: New research. *Parapsychological Journal of South Africa* 4(2): 124-139.