

JEANNE CALMENT,
THE SECRET
OF LONGEVITY
UNRAVELLED

Volume II

The Evidence

Nikolay Zak and Philip Gibbs

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PREFACE

This is the second volume in our series about Jeanne Calment who many believe to have been the oldest ever human by a margin of three years.

In the previous volume we have outlined the *switch* scenario, where Yvonne Calment took the identity of her mother Jeanne about a year before her death. Here we examine Mme Calment's testimony, lifestyle, photographic and other evidence and show that this scenario is incomparably more likely than the official one where Yvonne died in 1934 and Jeanne in 1997 at the age of 122 years.

In her old age, Madame Calment was interviewed many times by journalists, scientists, historians, and friends. They asked questions about her early life. She seems to have been very happy to talk, even as her hearing and eyesight deteriorated with age.

In 1977 she already spoke to historian René Garagnon (mostly about events of the First World War) [1] p140, but interviews became more frequent when Jeanne was declared the oldest living person in France at the assumed age of 111 and her birthdays became public events with the world's press in attendance.

Most of these interviews were conducted via her doctor Victor Lèbre because he was able to communicate with her more easily than others. In 1990 gerontologist Michel Allard and demographer Jean-Marie Robine of INSERM were involved in a centenarian study funded by the IPSEN foundation. When they discovered Mme Calment aged 115 years, they included the goal to examine her health and validate her longevity with help from Lèbre.

Between 1992 and 1995 they recorded many interviews on audio tape cassettes [2] p5, [3] p15. Some of the highlights were published in a French language book in time for her 120th birthday in 1995 [3]. A similar English version appeared three years later shortly after her death [2].

Testimonial evidence from the interviews can be used to argue both for and against her validity depending on their consistency with historical records. However, it is always possible to try to make the case that her memory was not perfect, she confused dates and events. Conversely, her daughter Yvonne would have also been familiar with some of the details of her mother's early life.

When Mme Calment recalled something from the distant past the validators spoke of her prestigious memory, but when she forgot or made mistakes, they made allowances for her old age.

Another significant problem for judging the value of testimony is that she had a lot of opportunity to relearn about details of historical events before any formal

recording of interviews took place. The validation team even talked about reinjecting information to prompt her to recall more. They admitted that she used the knowledge acquired during previous discussions [2] p7, p26; [4].

Such testimonial evidence is therefore inherently weak. In his original critique of Calment's longevity validation, Nikolay Zak used some of her statements to support his case [5]. The opponents responded with some counter arguments. In our more detailed Bayesian analysis paper [6] we left out her testimony because other evidence was more conclusive, but then we were accused of being too selective.

The release [7] of digital copies of audio recordings of interviews with Mme Calment in January 2022 has made a great difference (see below). Even if any one element of testimony cannot provide strong evidence, the combined weight of many points can be convincing. Here we will try to cover all known elements regardless of strength and weigh them in a realistic light.

In addition to the books published by validators, several other biographies have been written, for example those by Cavalié (1995) [9], Simonoff (1998) [8] and Lamy (2013) [1]. These works do not claim to be completely factual and scientific. Although the authors interviewed Mme Calment (or rather were present when her doctor interviewed her), not all of the described events and quotes can be blindly accepted as accurate. Cavalié's book in particular is a semi-fictional account of her life, except for the last chapter.

Overall, the information provided by her biographers

taken at face value supports the alleged authenticity of Mme Calment, but it does so at the expense of misleading the reader. One of the main characters in the book by Cavalié is Jeanne's childhood maid and life-long friend Calité, but she is completely fictional. Similarly, Simonoff invented names for Jeanne's childhood friends and made up a description of her active social life.

Lamy pretends to be more precise, but we have found various cases when his claims seem to be invented too, such as the portrait of Yvonne by the famous Arlesian artist Léo Lelé or the testimony of the made-up customer of Maison Calment.

Calment's interviews can be useful sources, but it is hard to know how reliable they are when not supported by recordings: journalists are not afraid to use some licence when writing up their stories.

An early report by Colette Porlier for Paris Match in 1988 contains several historical recollections not seen elsewhere [10, 11]. Some of these points stretch credulity, and in our opinion tend to undermine her claim to authenticity. Previous discussions on both sides have assumed that the quotes were accurate.

We have harboured doubts about some of the details, but the new evidence from audio recordings has tended to corroborate that Paris Match had accurately conveyed what she said. Here we will discuss the implications under the same assumption of accuracy while alerting readers to the possibility of remaining doubt and leaving them to form their own conclusions on that basis.

The published interviews with Mme Calment were conducted mostly by her doctor Victor Lèbre, often with the other validators or additional visitors present. The validators' books included edited and rearranged transcripts from some of these talks, but the tapes contain much more material and enable the original wording to be examined. These recordings reveal many new details of Mme Calment's memories of her life. They have now been incorporated into the evidence as set out below.

The questions put to Mme Calment were very searching. What she did not answer is as revealing as her replies. Just like her validators, we were

"excited as Egyptologists who discover, while passing through an unexplored area of a pyramid, a room unknown – until this moment – and full of treasures." [2]

We found that the transcriptions in their books sometimes contain significant errors. The authors were open about editing the text for brevity and clarity, but we were surprised at the extent of some of the changes, and the selectivity of what was included and omitted. This distorts the conclusions that can be drawn from Mme Calment's testimony.

It has therefore been very helpful to have the original recordings to examine. The audio tapes provide more information than the selected transcripts we provide below because they contain her intonation, so we recommend the reader to listen to them.

Note that the released data is incomplete. In particular, recordings of some conversations presented in the validators' books could not be found. INSERM states that 29 mp3 files were received, of which 25 were valid. We sought further information on the four invalid files which presumably correspond to four tapes, but INSERM has not responded to our query.

For the audio tapes content list see Annex.

MEMORABLE EXPERIENCES



Jeanne Calment at home

ENCOUNTER WITH VAN GOGH



"A cap down to here. My God, he was ugly."



How Van Gogh could have appeared to Mme Calment

Mme Calment's most celebrated story was her account of seeing the artist Vincent Van Gogh.

According to an English language Associated Press release on the occasion of Jeanne Calment's 120th birthday, she remembered selling him coloured pencils [12]. This version was copied into almost all English and American media reports of the legendary meeting, but it is not plausible for several reasons.

Firstly, Jeanne was under 15 at the time of Van Gogh's stay in Arles. The Calment shop was then run by Jacque's widow Maria with her son Fernand who Jeanne later married. As a drapery store, they would sell canvas as a cloth, but not pencils or paint brushes.

We know from local paper listings that Jeanne was still a student at school in 1891, so she would not be working in the shop at that time. Shop hours would

clash with school hours so opportunities for her to be introduced to clients would be rare. In fact, she hadn't said that she worked there and almost certainly never did.

Mme Calment claimed that she was introduced to Van Gogh when he was looking for canvases for his oil paintings. Some French sources also mentioned "*pinceaux*" meaning paint brushes [13], which seems to have been mistranslated as *pencils* by Associated Press and repeated as "*coloured pencils*" in many English language reports.

This alerts us that journalists cannot always be relied on to report details accurately even when they claim to be making quotes.

Fortunately, Mme Calment was filmed and audiotaped telling versions of her story. For the purposes of evaluating the evidence it is better to listen carefully to these recordings and disregard less reliable second or third-hand reports. Remember that she was about 13 to 15 at the time Van Gogh was in Arles, and the shop was then run by her second cousin who was also a Calment.

Here are transcripts taken from videos and audio recordings.

[14] 1986 interview (age 111)	Translation
Victor Lèbre (VL): et de Van Gogh, vous rappelez quoi?	Victor Lèbre (VL): and of Van Gogh, what do you remember?
Madame Calment (MC): J'en ai gardé un souvenir désagréable, parce qu'il était très laid et pas gracieux. Il est de mauvais caractère.	Madame Calment (MC): I have an unpleasant memory of him, because he was very ugly and not graceful. He has a bad temper.
VL: Il venait à votre établissement?	VL: He came to your establishment?
MC: Il venait au magasin pour acheter les toiles pour ses tableaux. Alor, comme il fallait plusieurs grades de toile, il était très difficile. Alors quand c'étaient les employées, il a remballé. Les employées voulaient plus le servir. Il arrivait, ils ne veulent pas vendre. Alors c'était mon mari qui le servait. Il était	MC: He would come to the store to buy the canvases for his paintings. Then, as it took several grades of canvas, he was very difficult. So, when it was the employees, he packed up. The employees didn't want to serve him anymore. He arrived; they do not want to sell. Then it was my husband who served him. He was patient. Then he took out all

patient. Alors il sortir tous les grades qu'il fallait, pour faire ces peintures.	the grades he needed to make these paintings.
---	---

[15] 1987 interview (age 112)	Translation
Q: On dit que vous avez connu Van Gogh, c'est vrai?	Q: They say you knew Van Gogh, is that true?
MC: Oui très bien. On me l'a présenté. Le temps de la présentation, il était laid comme un pou, un caractère de chien. Parce que comme nous avions un magasin de nouveautés, nous avions un rayon de toiles. Il venait chercher ses toiles pour les tableaux. Alors, il était difficile. Selon le tableau qu'il voulait faire, il fallait une toile comme ceci ou comme cela. Il y a des grades de toiles. Il choisissait.	MC: Yes, very well. I was introduced to him. At the time of the presentation, he was ugly as a louse, a dog's temper. Because we had a novelty store, we had a department of canvas. He came to get his canvases for the paintings. So, he was difficult. Depending on the painting he wanted to do, he needed a canvas like this or like that. There are grades of canvas. He chose. But it was necessary to have patience. My husband, who had the patience of an angel, served him. And the employees,

Mais il fallait avoir de la patience. Mon mari qui était d'une patience d'ange, il le servait. Et les employés, quand il le voyait venir, ils s'en allaient. Parce qu'il les rabrouait, alors c'était le patron qui le servait. Il n'est pas resté longtemps, il est devenu fou.	when they saw him coming, they left. Because he would tell them off, so it was the boss who served him. He didn't stay long, he went crazy.
--	---

[16] 1988 INA interview	Translation
MC: Je tends la main; je lui souris. Mon mari dit: "Je vous présente ma femme". Il me regarde et il continue à choisir ses toiles.	MC: I offer my hand; I smile at him. My husband says: "This is my wife". He looks at me and keeps picking out the canvas.

[17] 1989 INA interview (age 114)	Translation
MC: Il était alcoolique fieffé! ... Alors mon mari lui dit: "M. Van Gogh je vous présente ma femme". "Oui c'est ça va". Van Gogh touchait les toiles, il	MC: He was a crazy alcoholic! ... Then my husband said: "Mr. Van Gogh, this is my wife". "Yes ok, fine". Van Gogh touched the canvases, he looked at me. He did

me regardait. Il n'a pas quitté ses toiles. Il était assis. Il tripotait ces toiles; il se retourne et me regard. Il me toise, il dit – "ça va, ça va". J'ai dit, "c'est ça Van Gogh?" Quelle déception. Laid de la figure. Un bonnet jusque-là. Mon dieu qu'il était laid.	not leave his canvases. He was sitting. He was touching those canvases; he turns around and looks at me. He looks at me, he says, "It's okay, it's okay". I said, "Is that Van Gogh?" What a disappointment. Ugly face. A cap down to here. My God, he was ugly.
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1993 audio recorded by Dr. Victor Lèbre (edited) [7] (15 Jun 1993 – 01:17)	Translation
VL: Du temps de Van Gogh, il y avait un zouave qui a été tué. Est-ce que vous vous rappelez? MC: Non, Van Gogh j'ai connu.	VL: In Van Gogh's time, there was a zouave who was killed. Do you remember? MC: No, I knew Van Gogh.
VL: Vous l'avez connu? MC: Ah oui. À la fin de ces jours. Il était à moitié fou. À la fin de ces jours.	VL: Did you know him? MC: Oh yes. At the end of his days. He was half crazy. At the end of his days.
VL: Où est ce que vous l'avez connu?	VL: Where did you know him?

MC: A Arles. Alors, un jour mon mari m'a dit, quand Van Gogh viendra, je te ferais connaître [...]

VL: Qu'est-ce qu'il venait faire au magasin?

MC: Il venait acheter des toiles pour ces peintures. Il les faisait toujours.

VL: Et vous l'avez vu souvent, Van Gogh?

MC: Oui, j'oublie, les derniers jours de sa vie, avant qu'il se coupe l'oreille. Après, je crois qu'il a été à Saint-Rémy, c'est là qu'il s'est coupé l'oreille.

VL: Et au magasin, il est venu plusieurs fois?

MC: Oui, oui. Chaque fois il avait besoin des toiles [...]

VL: Et vous vous l'avez rencontré plusieurs fois?

MC: Non, une seule

MC: In Arles. So, one day my husband told me, when Van Gogh comes, I'll let you know [...]

VL: What did he come to the store for?

MC: He would come and buy canvases for his paintings. He was still doing them.

VL: And did you see him often, Van Gogh?

MC: Yes, I forget, the last days of his life, before he cut his ear. Afterwards, I think he went to Saint-Rémy, that's where he cut his ear.

VL: And at the store, he came several times?

MC: Yes, yes. Each time he needed the canvas [...]

VL: And you met him several times?

MC: No, only once, when my husband introduced me.

VL: And at that time, he didn't pay any attention

fois, quand mon mari m'avait présenté.

VL: Et à ce moment-là, il n'a pas fait attention à vous.

MC: A ce moment-là, il était toujours moitié fou. D'ailleurs, il est parti d'Allemagne.

VL: C'est là qu'il est allé à Saint-Rémy chez les fous?

MC: Oui, oui. Il est allé le jour-là, proche de Paris, près de son frère. Il a complètement changé.

VL: Il est allé à Auvers-Sur-Oise.

MC: Oui.

to you.

MC: At that time, he was still half crazy. In fact, he was from Germany.

VL: That's when he went to Saint-Rémy to a home for the insane?

MC: Yes, yes. At that time, he went near Paris, near his brother. He changed completely.

VL: He went to Auvers-Sur-Oise.

MC: Yes.

[18] quotes from Readers Digest, 1995	Translation
MC: Très laid, malgracieux, impoli, malade... je lui pardonne, on l'appelait le "Dingo". Un jour, mon futur mari a voulu me le	MC: Very ugly, ungainly, rude, sick... I forgive him, he was called the "Dingo" ("Goofy"). One day, my future husband wanted to introduce me to him. Crouching

présenter. Accroupi devant l'étalage, Van Gogh ne s'est même pas levé. Il m'a toisée d'un regard noir, l'air de dire "quantité négligeable." Ça m'a suffi!	in front of the stand, Van Gogh didn't even get up. He glared at me, as if to say, "negligible quantity". That was enough for me!
--	---

[19] 1994 interviewed by her doctor Victor Lèbre for France 3	Translation
VL: Vous avez connu Van Gogh? MC: Oui. VL: Racontez-nous comment vous avez le connu. MC: Je l'ai connu à la fin de ses jours. Tout à fait à la fin. Il était laid. Il était brulé par l'alcool. VL: Ou est-ce que vous avez le connu? MC: Il venait au magasin. Il peignait encore un peu. Il venait chercher des toiles. Alors mon mari servait des toiles, pour	VL: Did you know Van Gogh? MC: Yes. VL: Tell us how you knew him. MC: I knew him at the end of his life. Right at the end. He was ugly. He was burned out by alcohol. VL: Where did you meet him? MC: He used to come to the store. He was still painting a little bit. He'd come in and get canvases. So, my

peindre. VL: C'est Van Gogh qui les choisissez? MC: Oui. Il les touchait. Ce n'est pas mon mari. Mon mari il n'y entendait rien lui. C'est lui qui les choisissait. Il les palpait. Mais les derniers temps c'était plus ça. VL: A l'époque, il était connu Van Gogh en ville? MC: Oui <pause> Il fréquentait les maisons de tolérance. Pas pour les femmes. Comme pour les maitresses qui payait trop cher. Ils lui donnaient de l'argent pour boire.	husband would serve canvases, to paint. VL: It was Van Gogh who chose them? MC: Yes. He touched them. It's not my husband. My husband didn't understand anything about them. It was he who chose them. He felt them. But lately it was more like that. VL: At the time, was Van Gogh known in town? MC: Yes <pause> He frequented the brothels. Not for the women. Like for the mistresses who paid too much. They would give him money for drinks.
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Her story was that Van Gogh visited the Calment store to buy canvases for painting near the end of his days but before severing his ear. The version that she gives does not change much over the eight-year span of these interviews.

Mme Calment implied that she expected more from the

famous artist and was disappointed at their meeting “*c’est ça Van Gogh?*” However, at that time Van Gogh was not well known at all in Arles, so this reaction is clearly a later fabrication. Moreover, before his ear trauma the few locals who knew the artist called him “*Mr. Vincent*” rather than “*Mr. Van Gogh*”, as Fernand does in her account, because they found it difficult to pronounce his last name [20].

One interview revealed that she had no idea about an incident in which two Zouaves were killed at the door of a brothel. On 16th March 1889 there was almost a riot when the Italian perpetrators were arrested and placed in the town hall. The parade for the funeral was a major event [20], so it is almost certain that Jeanne would have been aware.

In 1987 Mme Calment said she knew Van Gogh very well (a clear exaggeration given her own later claim from 1993 that they met only once). She was not very complimentary: Van Gogh was *ugly, crazy, and impolite*.

Her fame increased tremendously at that time because of her connection to the artist. Paris Match devoted a big article to the rising star where she posed for a picture as Van Gogh’s Madame Ginoux [10]. A version of her story was also included in a Canadian film “*Vincent and me*” made to commemorate the centenary of Van Gogh’s death.

Mme Calment claimed that they “*had a shop*” where he was a regular customer. In at least two interviews (1988 and 1989) she was recorded saying that her husband introduced her to the artist as his wife.

The most obvious problem with her tale is that it would

need to take place by 1890. That year Van Gogh died after leaving Arles. This was at least seven years before Jeanne Calment married. She would have to be about 13 to 15 when she met him which is inconsistent with how she presented it. Mme Calment implied that she was a married woman at the time, not a young girl.

Some reporters seemed to realise the issue. They changed the story to say that she met the artist in her father’s store. In the film version a girl reports it this way. This is even less correct since Jeanne’s father was a ship builder and never owned a shop. If Mme Calment said this, it would certainly imply that she was really Yvonne, and she was talking about her father Fernand’s shop.

In fact, we have found no direct recording of Mme Calment saying it was her father’s shop, although some journalists wrote quotes as if she did say it [21]. Norris MCWhirter from the Guinness book of records claimed that she met Van Gogh in her mother’s shop [22]. When it was realised that Jeanne’s parents did not own the shop reporters had to change the story again.

In 2019 Lucien De Cock said that she hid from Van Gogh behind her uncle’s back in his store [23]. Her father’s cousin Jacques Calment had indeed founded *Maison Calment*, but he died from typhoid fever in 1886 before Van Gogh arrived in the town.

The validators acknowledged that Mme Calment referred to Fernand as her husband, but they said she did not commit an error because she meant implicitly that he was her husband-to-be at that time. They even said that she later made this explicit [2] p37, [3] p62. We

have not found this in any of the released recordings, but she was also quoted in her 1988 Paris Match interview as saying that she was not yet married [11].

Despite the validators' attempts to shore up her account, the recorded statements from 1988 and 1989 that she was presented as his wife unambiguously refute their claim that there was no chronological error. She was very clear about the circumstances, and it cannot be put down to a bad memory or misunderstanding.

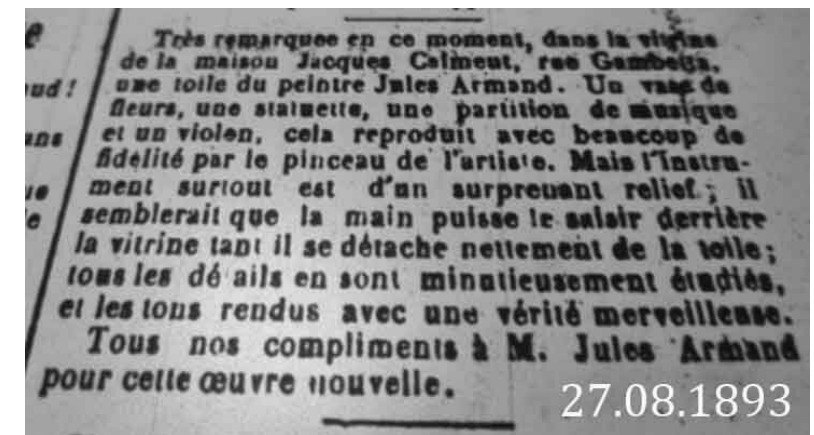
"Ah, Van Gogh? I know my lesson by heart," she told Le Monde in 1988, "I answer what people want to hear." [24]

Was the meeting possible at all? Van Gogh made his way to Arles by train on the eve of Jeanne Calment's 13th birthday. For most of his stay in the town he lived near place Lamartine in another quarter of Arles away from the Calment shop.

Van Gogh's correspondence has been made public [25]. His brother Theo was an art dealer financing Vincent's work, so the letters account for expenditures and the supply of art materials in fine detail.

Vincent was mostly sent canvas from a specialist supplier *Tasset et L'Hôte* in Paris. On some occasions his brother was too slow, so the artist obtained what he needed from the local sources in Arles. A painter Jules Armand and his wife stepped in to help him to get what he needed. Mme Armand interviewed by Coquiot in 1922 said he purchased very little, *"en toutes petites*

quantities." [20]



Jules Armand's exhibits in Maison Calment

There were plenty of draperies and *toileries* in Arles who would sell Van Gogh what he described as unprimed canvas. The Calment's shop would be one of the more expensive (Mme Calment herself said that the typical clients of the store were wealthy farmers from the Camargue), and the struggling artist was short of money. His finances were extremely limited, and he was known to paint on the back of a canvas when he lived in Paris. He even used tea towels in an asylum in Saint Rémy [26].

<p>Toilerie et Tissus : Allec (Mme), rue du 4 Septembre, 21. Armand (Mlle), à Raphèle (Gru) Bertolloto, Antoine, r. Marché-Neuf 5. Bonis, Joseph, rue Marché-Neuf 30. Boursier, L., passage à Niveau (faub. Mouleyrès). Brillant (Vve), r. de la République 39. Laget (Vve), rue de la République 21. Lavandot, Antoine (Vve), rue de la République 16. Maureau, P. (Mme) plan de la Cour 6. Mison, Marie, r. du Grand-Couvent 15. Nourrit (Vve), rue du Refuge 57. Pigot, Catherine, place de la République, 12. Recoülin (Mme), r. du 4 Septembre 36. Roche (Mme), rue des Suisses 19. Rognon, Louis, rue des Suisses 30. Roman, (Vve), rue de la République 3. Sablon, Henri, rue Neuve 5. Toms, Jq., rue de l'Hôtel-de-Ville, 24.</p>	<p>Drapiers (mrs) Boeuf (Dlle), rue de la Trouille 16. Calment, Jacques (Vve), rue de la Poissonnerie 3. Faure, Trophime, r. de la Cavalerie 10. Izac (Vve), rue de la Poissonnerie 20. Tassy, rue de la République. Viret-Reybaud, rue Jouvène 11.</p> <p>Droguistes : Armand, Jules, rue du 4 Septembre 30.</p>
<p>Mobilier (mrs de): Audibert, V., rue Jouvène 19. Bousquet, C., r. Amédée-Pichot 38. Bousquet, H., rue du 4 Septembre, 19. Bruzet, Louis, rue de l'Hôtel-de-Ville.</p>	<p>Nouveautés : Tassy, J.-Bte, r. de la République 23.</p> <p>Papiers peints : Bompard fils, place de la République 14.</p>

Excerpts from trade listings of 1888 in Arles

Calment's validators tried to find evidence in favour of the encounter in the shop but could only suggest that he might have bought a bed there that he described in his letters [2] p38 (not included in the French version of their book). They claimed that

"The only place in Arles to make this purchase was the Calment shop."

This is not correct.



The bedroom, Van Gogh Museum in Amsterdam



Announcement of the new "rayons" including furniture in Maison Calment, 1897

In 1897 it was announced for the first time in a local newspaper that Maison Calment was going to start

selling furniture, so Van Gogh couldn't buy a bed from Fernand years earlier. Conversely, there were several other shops that did sell furniture such as Bousquet near where he was staying. He could also acquire a bed cheaply by asking a wood turner directly to make it.

Van Gogh had a mental health breakdown and severed his ear on December 23, 1888, while still in the town. He was subsequently treated by a young intern Félix Rey at the hospital Hôtel-Dieu which was only about 100 metres from the Calment shop at the other end of rue Gambetta. As he recovered, he continued painting there.

For a short while Van Gogh returned to place Lamartine, but a petition was raised by his landlord and neighbours to get him out. So, he returned to the hospital. There was a smallpox outbreak that made it difficult for him to leave, but by April he would have some opportunities to go outside [20].

On May 7, 1889, after five months at the hospital, the head doctor Jules Urpar diagnosed Van Gogh with "*acute mania with generalized delusion*" and the artist left the town to continue his recovery at an asylum in Saint-Rémy-de-Provence. There were times in the following months when he briefly returned to Arles. In July 1890 he died in Auvers-sur-Oise from a gunshot to the stomach that is widely believed to have been self-inflicted.

Mme Calment said that she met him before he cut his ear. However, she thought wrongly that he did it in Saint-Rémy after leaving Arles. This detail was included in the 1993 audio recording, but it was not new. It also

appears in an early report from 1987 [21].

If her testimony is put aside, the evidence from Van Gogh's letters and knowledge of his locations in relation to shops of that time would make it look unlikely that he ever bought anything from the Calment store. His letters give no clue that he went there. However, from the point of view of someone who considers Mme Calment to be honest and authentic it is impossible to rule out the veracity of the meeting completely. It is more likely that he never went to the Calment shop, but this is not certain.

Although Mme Calment's account is clearly impossible in the form she told it repeatedly, some of the details are quite fitting.

According to her story, the artist visited the shop right at the end of his days. This could refer to the times when he was in the nearby hospital around April 1889, or when he made return visits. Before deciding to go to Saint Rémy Vincent had considered moving out of the hospital to a room of Dr. Rey who lived at rue du Pont near Maison Calment.

She said that Van Gogh checked the grain of the canvas carefully and that he still painted a little. In fact, he was painting quite a lot. In April 1889 Theo was busy with his wedding, so it is possible that his brother ran out of canvas and entered the store to look for some. Mme Calment's uncomplimentary description would better suit his demeanour at that time: the conditions in the Arles hospital didn't allow patients to look tidy [20].

It would mean that his ear was already mutilated, but she indicated that Vincent wore a bonnet that came low

on his forehead. Perhaps he was hiding the self-inflicted injury. When the validation team approached her in 1992, Mme Calment was not comfortable talking about the encounter.

“Non, pas question de ça,” – she said when asked again about Van Gogh [2] p32, [3] p57.

The inconsistencies in her account might have troubled her. In 1993 she recalled the story again for her doctor, but this interview was not used in the books [7] (15 Jun 1993 00:50).

Mme Calment was also interviewed in October 1988 by Martin Bailey, a leading Van Gogh specialist and investigative reporter for *The Art Newspaper*. Bailey has written extensively on the life and work of the artist, including a trilogy of books. The second book “Studio of the South: Van Gogh in Provence” covers his life and works while in Arles. The author seemed not to be completely convinced by her story:

“She would have been 13 when, she claims, Van Gogh bought canvas from her family’s textile shop. [...] By the time I interviewed Madame Calment her stories were well honed [...] I found Pauline Mourard, daughter of Dr Felix Rey (who treated Van Gogh), somewhat more reliable.” [27]

Bailey had already expressed his doubts in the August 1997 issue of *The Art Newspaper*:

“But was Madame Calment’s story a ‘fake’?”

Although she was in the right place at the right time, it is difficult to believe that she remembered him from 1888. It seems more likely that she was later regaled with stories of the family’s most notorious customer. Whether Madame Calment really knew Van Gogh will now remain a mystery, and like so much to do with the artist, truth is difficult to disentangle from legend.”

“As I said to Van Gogh...”

The last person to know Vincent van Gogh died on 4 August, at the age of 122, taking with her the title of the oldest person to have ever lived. Jeanne Calment was born in Arles on 21 February 1875, and was just thirteen when the aspiring artist arrived in town. Nearly a decade ago, when she was still a sprightly lady, I talked with Madame Calment about her memories of Van Gogh. She insisted that he bought his canvas in the family's cloth shop in rue Gambetta. The stories flooded out: he was “more interested in drinking than painting”, most of the girls were “afraid of him, but the prostitutes liked him”, and eventually he went mad and “sliced his ear like a piece of cheese.” But was Madame Calment's story a “fake”? Although she was in the right place at the right time, it is difficult to believe that she remembered him from 1888. It seems more likely she was later regaled with stories of the family's most notorious customer. Whether Madame Calment really knew Van Gogh will now remain a mystery, and like so much to do with the artist, truth is difficult to disentangle from legend



M.B.

Calment's obituary in The Art Newspaper

Like us, Bailey accepted that there could be some basis of fact to the story. At the end of October 1888, Van Gogh's friend Paul Gauguin came to Arles to live with Vincent so that they could work together as artists. Gauguin preferred a coarser material for painting, so he had bought a 20-metre roll of jute that they both used for canvas.

“There were several shops in Arles which sold jute, but it is possible that the two artists bought their roll from the Calment shop in rue Gambetta (and it is just possible that 13-year-old Jeanne Calment would have been working there at that moment).” [27]

We now know that it is unlikely that Jeanne was working there, but it is true that such a purchase could have been the origin of her anecdote. On October 8, 1888, Vincent complained:

“Tasset hasn't sent the canvas. It's very, very urgent; please order 10 or at least 5 metres of it immediately. It's very urgent because I already bought some canvas here just today, in order to be ready for tomorrow or the day after, depending on what the weather's like. Here the fact is that you have to take advantage of the intervals the mistral leaves and be ready beforehand.” [25]

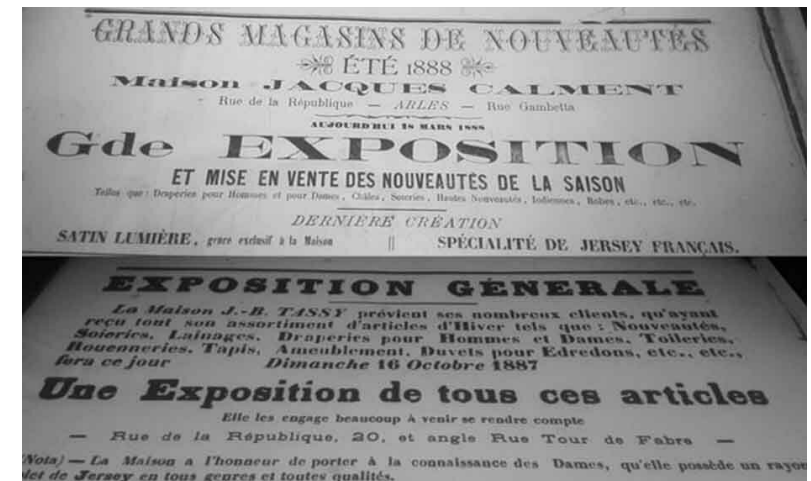
Vincent has received the canvas from Tasset just after sending this letter to Theo, but he had already purchased some in Arles. He had painted the Trinquetaille bridge at that time, so it is possible that he bought the canvas from a store located near the bridge. In 1888, unlike in 1897 Maison Calment did not yet claim to sell “toileries” in its advertisements, but the closely related Maison Tassy did.

At that time Van Gogh even wanted to let Tasset down

completely because his material was too expensive. However, coarse jute was probably not ideal for Vincent's favourite swift brushstrokes, so when they ran out of it in December, Van Gogh continued to use the canvas from Paris [25, 26]. From his letters of that period, we can assume that Van Gogh could appear as "half crazy" to the locals:

"I'm not ill, but I'd become so without any doubt if I didn't take hearty food and if I didn't stop painting for a few days. In fact, I'm once again nearly reduced to the state of madness of Hugo van der Goes in Emile Wauters's painting." [25]

Back in September 1888, Van Gogh was preparing his yellow house to host a group of artists who he hoped would live together like monks. He bought two beds, a linen, two palliasses, 12 chairs (he wanted to unite 12 artists/apostles), a mirror, and several small indispensable things [25]. Some of these purchases, including his chair and the jute on which he painted it could have been made from Tassy.



Calment didn't sell canvas and furniture in 1888 but Tassy did. They were called Maison Calment-Tassy in 1891 and had same address in 1894



Van Gogh bought 12 chairs in September 1888 and painted some of them on Gauguin's jute in November. Around the same time, he also painted the bedroom with a couple of chairs on the Tasset's canvas which he received from his brother

It is also possible that Van Gogh purchased some novelties from Fernand Calment who displayed the works by Vincent's friend Jules Armand in the windows

of his store. Van Gogh could have asked Fernand about the material available for canvases in town and their conversation might have evolved into a testimony given by Madame Calment 100 years later.

It seems most likely to us that she made up her testimony to please journalists, but she would need to be quite inventive to add all the details. One possible explanation is that she recalled the stories told by Fernand or even Dr. Félix Rey who had treated Van Gogh. We know from the interviews that Dr. Urpar (1857-1915) who had sent Vincent to the asylum was also the doctor of Mme Calment's parents. She then just had to add the unlikely detail that she herself had been introduced to him.

The full tale could have been shaped a few years before she was recorded on video. Why didn't she tell this story earlier, when the biographers of Van Gogh came to Arles in the 1920s, or when the Hollywood movie *"Lust for life"* with Kirk Douglas was filmed there in 1950s?

We believe that around the time that she moved to the retirement home, Mme Calment had become known to Maïté Dubocquet, an art enthusiast living in the area who was interested in Van Gogh history. This might have encouraged her to embellish the anecdote.

"She knew that in Provence the 'Sunday's truth' can be truer than the reality." [24]

As Vincent said in a letter to his brother,

"My great desire is to learn to make such inaccuracies, such variations, reworkings,

alterations of the reality, that it might become, very well – lies if you will – but – truer than the literal truth." [25]

The story of their meeting was a small innocent lie which was blown up by international press to unexpected proportions. Her validators acknowledged that without this link to the famous artist perhaps she would have remained unknown [2]. Could this explanation work whether Mme Calment was Jeanne or Yvonne? It seems strange that Jeanne would create a version of the story that could not be correct due to her age, whether it was based on a genuine event or not.

Julius Meier-Graefe, author of the first widely read biography of Van Gogh, visited Arles in 1911 and was absolutely bewildered by the fact that Arlesians had no idea about his existence [28]. As Vincent's international fame increased, people in Arles gradually became aware of his existence. In 1922 another biographer, Gustave Coquiot, asked Doctor Félix Rey to connect him with those who had met Van Gogh.

The artist became widely known and Jeanne would be well aware that she had been just a child at the time of his stay in Arles. The family must have spoken of him because they were very interested in art. The local painter Jules Armand was on good terms both with Vincent [25] and with Fernand.

Mme Calment was telling the story at least ten years before she died, and she is said to have had an astonishing memory right up to her final years. How could Jeanne then become confused about being married when she met Van Gogh?

The testimony is more consistent with Mme Calment being Yvonne who grew up two decades later and could miscalculate the dates. It also shows that she was not always honest.

The validators were clearly aware of the inconsistencies in her account. They might have tried to challenge her to get her to agree to a more correct version. She complied but then she refused to discuss it further. This should have made them question her authenticity, but instead they tried unconvincingly to reconcile the facts with her story.

Conclusion: Mme Calment's description of her encounter in the form she told it is incompatible with her own family history. We know many relevant details of Van Gogh's life in Arles from his letters and other accounts. The evidence makes it unlikely that he often bought canvases or anything else from the Calment shop.

Even if it is argued that she made the story up for the sake of notoriety, Jeanne should have been able to do so more convincingly. The claim that she was confused with old age is not tenable. This testimony is therefore good evidence that Mme Calment was in fact Yvonne, and it is an extension of her lies about her identity.

We assess this as strong evidence and assign it a likelihood ratio of 5 in favour of the switch.

Curiously, there exists another link from Van Gogh to Mme Calment. In 1888 Vincent liked to paint the *mas*

de Griffeuille which later became Dr. Lèbre's house since 1949 [1] p104. One of these pictures, the "*Wheatstacks*" was hidden from the public eye for 116 years. It was seized by Germans from Paris in 1941 and went on sale for about \$30 millions 80 years later [29].



Van Gogh "Wheatstacks"

The remains of mas de Griffeuille

LAUNCH OF "LA JEANNE"



A steam tug hauling barges upstream

Mme Calment's biographers wanted to record early memories from her childhood, but it was hard to get her to recall much from that time.

She could not even remember anything about her friends at school. The three validators had recorded interviews since 1992. Before that she often told of her meeting with Van Gogh, but that story was flawed. She had told them about her father launching his last ship, but had not given many details about it on the audio recordings before autumn 1994.

[7] (29 Jan 1993 18:08), edited	Translation
VL: A quoi vous pensez la maintenant?	VL: What are you thinking about now?
MC: Je peux pas penser à l'avenir, j'en ai plus. Je suis en train de mourir.	MC: I can't think about the future, I don't have one. I'm dying.
VL: Vous pensiez pas un souvenir?	VL: You didn't think of a memory?
MC: Non. J'attende les photographes.	MC: No. I'm waiting for the photographers.
VL: L'autre jour vous m'avait dite que quand vous étiez comme ça, vous repassez les beaux moments de votre vie.	VL: The other day you told me that when you are like this, you replay the beautiful moments of your life.
	MC: That was some days ago.

MC: C'a fait quelque jour ça.	VL: What are the beautiful moments of your life?
VL: C'est quoi les beaux moments de votre vie?	MC: My youth, my marriage, my politics.
MC: Ma jeunesse, mon mariage, ma politique.	VL: What are your politics?
VL: C'est quoi votre politique?	MC: My father was a councillor for the town council.
MC: Mon père était conseillère au maire.	VL: What are the highlights of your life?
VL: C'est quoi alors ces beaux moments de votre vie?	MC: I have many.
MC: J'en ai plusieurs.	VL: Tell me one.
VL: Dites m'en un.	MC: When my father launched his last boat. I already told you that.
MC: Quand mon père a lancé son dernier bateau. Ça je vous ai déjà dit.	VL: Yes, but tell me another one.
VL: Oui mais dites-moi un autre.	MC: I don't remember.
MC: Je ne me rappelle plus.	

She mentioned that her father built a big boat, a mahonne:

(6 and 13 July 1994 19:14)	Translation
MC: Il avait fait un trois-mâts pour la	MC: He had made a three-masted ship for

haute mer, et puis un gros bateau, une mahonne qu'on appelle ça, une mahonne, ces gros bateaux, mahannes.	the high seas, and then a big boat, a mahonne they call it, a mahonne, these big boats, mahannes.
VL: Vous y êtes monté sur ces bateaux?	VL: Did you go on these boats?
MC: Oui! y'avait des... non, pas beaucoup.	MC: Yes! There were some... no, not much.
VL: Vous avez navigué sur le Rhône?	VL: Did you sail on the Rhône?
MC: Comment?	MC: How?
VL: Est-ce que vous avez navigué sur le Rhône?	VL: Did you sail on the Rhône?
MC: Heu, sur le Rhône, oui, avec des barques, des petites barques.	MC: Er, on the Rhône, yes, with boats, small boats.
VL: Vous vous promeniez à la rame?	VL: Did you row?
MC: Oui.	MC: Yes.
VL: Vous n'aviez pas peur?	VL: Weren't you afraid?
MC: Non. Je ne connais pas la peur. On me l'a souvent reproché. Mon père m'a reproché: "Tu n'as pas assez peur, entre celles qui ont peur de tout, et tu qui n'ont peur de rien." Et m'y pose la question a	MC: No. I don't know fear. I have often been reproached for it. My father reproached me: "You're not afraid enough, among those

lui: “Ça à t'ennuie? Ça à c'est ma vie, à quoi ça sert de vivre?” Il prend la parole “Qu'est-ce que tu dis? Tout mais pas ça!”	who are afraid of everything, you are afraid of nothing.” And I asked him: “Does it bother you? It's my life, what's the point of living?” He speaks up “What are you saying? Everything but that!”
VL: Qu'est-ce que vous avez eu comme entre trait de votre père? Comme un trait de caractère comme lui. En quoi vous vous ressemblez?	VL: What did you get as a trait from your father? Like a character trait like him. How are you like him?
MC: A tout. La volonté, peur de rien... La volonté surtout.	MC: Everything. Willpower, fear of nothing... Willpower above all.

The last passage could be applied either to Nicolas or to Fernand. A local newspaper from 8 March 1896 (a month before his marriage) reported a story compatible with the lack of fear in Yvonne's father:

“M. Fernand Calment, a cloth merchant, in rue Gambetta, had just returned home on Wednesday night, when it seemed to him that someone was trying to open the door; he went to the first-floor window and saw an intruder who had in his hands a bunch of nightingales, false keys, and who was trying to enter his home. He seized a gun and fired

it three times at the criminal, who immediately fled with an accomplice.”

There is one previous recording of the story about her father's last boat [7] (date unknown 02:30). Although the date was not noted it seems earlier than other versions because her voice is noticeably stronger. The section of interview lasts just 90 seconds. Mme Calment tells us that it was a large celebration. She was about 10 years old, and her father wanted her to remember the occasion.

The thing she most remembered was her dress with its blue belt. There was no mention of the ship being named “*La Jeanne*” in this interview.

However, the story of the launch had been told a few years earlier. It appears in the Paris Match interview of 1988 [10, 11]. That version includes the fact that the ship was named “*Jeanne*” and describes how its sails inflated in the wind.

Paris Match 1988 [10, 11]	Translation
J'ai huit ans, c'était, si vous comptez bien, en 1883. Mon père vient de terminer un superbe navire et il sait que ce sera le dernier. C'est le jour du lancement. Je suis sur le quai où tout est	I'm eight years old, it was, if you count correctly, 1883. My father has just finished a beautiful ship and he knows it will be his last. It is the day of the launch. I am on the

pavoisé et les barques
des pêcheurs dédiées à
saint Nicolas, avec une
croix rouge à l'avant,
font comme une haie
d'honneur.
Le curé et ses deux
vicaires, et en tenue s'il
vous plaît, bénissent
la coque. On joue "La
Marseillaise". Mon
père ordonne la mise à
l'eau... C'était vraiment
"émotionnant". Je
revois encore la coque
glisser doucement, les
voiles se gonfler sous le
vent.
Et maintenant, les
murs du quai vide,
s'effritent sous l'assaut
des eaux violentes
du Rhône. Ce bateau
s'appelait "Jeanne",
comme moi. Puis mon
père n'a plus construit
de navire.

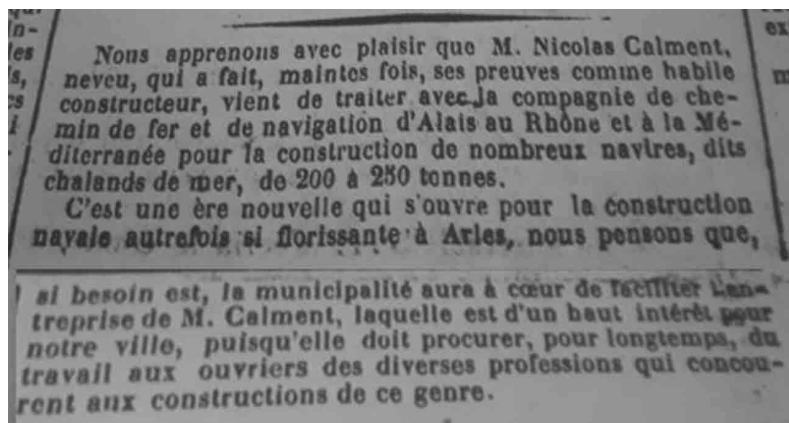
quay where everything
is decorated and the
fishermen's boats
dedicated to Saint
Nicolas, with a red
cross on the front,
form a hedge of
honour.
The priest and his two
vicars, in uniform,
bless the hull. They
play "La Marseillaise".
My father ordered the
launching... It was
really "emotional". I
can still see the hull
gliding gently, the sails
billowing in the wind.
And now, the walls of
the empty quay are
crumbling under the
assault of the violent
waters of the Rhône.
This boat was called
"Jeanne", like me. Then
my father did not build
any more ships.

It is possible that Jeanne's father Nicolas built some boats powered the old-fashioned way with sails, but he was primarily involved in the construction of barges known as *chalands* and *penelles* for carrying coal and other goods.

Such vessels had navigated the waters of the Rhône for centuries. The boats would descend the river carrying cargos from mines and quarries, using the flow of the current and paddles at the rear to guide them. Once emptied at their destination they had to be hauled back up the river by large teams of horses on the riverbanks. From around 1830 steam driven tugs (*remorqueurs* in French) were introduced to the river.

With powerful engines driving large paddle wheels (*aubes*) on each side, they could haul convoys of empty barges back up the river and could also be used to bring cargo upstream. In the 1860s more efficient propeller driven tugs were introduced. Later the steam engines could be incorporated directly into a range of different vessels including passenger boats.

Nicolas Calment started out as a carpenter working at the quais of Trinquetaille with his uncles and brothers. By age fifty he was a successful businessman. In 1880 the "*Homme de Bronze*", a local paper, reported that he would build a fleet of barges for a railway company that planned a new line from Alais (Lucile Randon's hometown) to the river Rhône for transporting coal.



Congratulations to Nicolas, l'Homme de bronze, 17 September 1880

The names of some of the boats built by about eighty workers under his supervision in 1881 appeared in the press:

Charbon, Minerais, Coke, Marseillaise, Avignonnais, Alsacien, Albigeois, Angoumois, Bearnais, Le-Lorrain, Toulonnais, Bordelais, Longuedocien, Provençal, Flamand, Picard, Normand and Gascon.

At that time Nicolas Calment and his partner Jean Baptiste Calment planned an expansion of their business. The city council had partially approved their request to provide them with more space for the construction work and the Calments were given the right to build ships in the Mediterranean port of Bouc. Unfortunately, Jean Baptiste died in 1885 at the age of 36. His mother Louise Vachier initially tried to continue the business but then decided to sell it.

A VENDRE Plusieurs bateaux dits Penelles, construits en 1881. S'adresser à M. Calment, constructeur à Arles (B.-du-Rhône)

3° DE 38 CHALANDS DE FLEUVE NON PONTÉS DITS PENELLES ET 1 CHALAND DE FLEUVE PONTE DIT PENELLE
Construits sur le Rhône en 1881, en bois.
 Sur ces 39 Chalands 10 sont à la jauge du canal d'Arles à Bouc, avec les dimensions suivantes environ : Longueur moyenne, 34 m. 35 ; largeur moyenne, 7 m. 50 ; hauteur moyenne, 1 m. 60 ; donnant une portée de 350 tonnes environ.
 29 sont à la jauge du canal de Beaucaire, avec les dimensions suivantes : Longueur moyenne, 33 m. 50 ; largeur moyenne, 6 m. 25 ; hauteur moyenne, 1 m. 60 ; donnant une portée de 300 tonnes environ.

Boats sold by Nicolas in 1885 after the bankruptcy of the railway company

In 1885 after the bankruptcy of the railway company the barges built in 1881 were on sale and Nicolas Calment was given as a contact: he probably helped the company to find the buyers.

As time passed those same railways that brought him business were becoming a commercial threat to the river traffic and Nicolas seems to have taken the opportunity to quit while he was ahead. Sometime in the 1880s he could have launched his last ship. Mme Calment said that afterwards her father made wine at the farm Rouiron in Saint-Martin-de-Crau:

[7] (15 and 22 Sep 1994 11:00)	Translation
MC: Il est venu à la campagne, il a renvoyé le fermier et a pris la campagne, à son compte. Il a pris un bail. Et s'est occupé de son fourrage, de tout. Il avait une grande campagne, sa vigne, une belle vigne avec des raisins... Il y avait le goût du Bordeaux. Ah, il était capable. ...	MC: He came to the country, he dismissed the farmer and took over the estate, on his own. He took a lease. And took care of his fodder, of everything. He had a big field, his vineyard, a beautiful vineyard with grapes... He had a taste for Bordeaux. Ah, he was capable. ...
VL: Ça lui rapportait suffisamment d'argent pour vivre?	VL: Did it bring him enough money to live on?
MC: Oui, Il n'avait pas besoin de ça pour vivre, les bateaux lui avaient rapporté. Avec le prix qu'il avait gagné à construction de bateaux, il a cuvé son vin tranquillement.	MC: Yes, he didn't need that to live, the boats had brought him money. With the money he had earned from building the boats, he drank his wine in peace.



Mas-de-Rouiron in 1960s, Reymond family archive



Winemaking in neighbouring Mas-de-Gouin in 1909

Records show that Nicolas bought the farm in 1888. We know that he also became involved in local politics, and in 1892 he was made an administrator for the town's benefits office where he had numerous clashes with his opponents who didn't consider him the right person for such an activity. He was ousted in 1905 when his rivals declared that

"Charity must be reserved for people who are conciliatory, gentle and impartial, not used as a political weapon against the poor."

Nevertheless, Jeanne's father continued to mark himself down as a boat builder on the census and advertised his services. He might never have left his vocation completely. An obituary from 1931 named Nicolas Calment as a former ship builder and "*agent de surveillans des batiments a vapeur*" (steam construction supervisor).

In 1994 the validators were preparing a book with information they had gathered from the interviews with Mme Calment, and they wanted to publish it at the

end of the year in time for her 120th birthday.

They anticipated strong public interest. At 10 a.m. on 7th September 1994 Robine, Allard and Lèbre sat down with Mme Calment and listened to a remarkable version of her story about the launch of “*La Jeanne*”. She recalled new details that they had never recorded before.

The transcripts took pride of place at the beginning of their final version of the book when they finished it off just two months later. We can confirm that the transcripts in the French version of the validators’ book follow closely the interview as recorded on the audio tapes [2] p38-45, [3] p25-31. Here is our version of the full transcript with only repetition of questions edited out:

[7] (7 Sep 1994 02:35)	Translation
VL: Vous m'avez dit que votre père fabriquait des bateaux.	VL: You told me that your father made boats.
MC: Oui.	MC: Yes.
VL: Est-ce-que vous vous rappelez le dernier qu'il a lancé?	VL: Do you remember the last one he launched?
MC: Oui, une mahonne, ça s'appelait la mahonne et il avait mis dessus “Jeanne”. Et je suis allée en mer <laughs>, je suis allée en voyage!	MC: Yes, a mahonne, it was called the mahonne and he wrote “Jeanne” on it. And I went to sea <laughs>, I went on a trip!
VL: Pourquoi c'est qu'il	

l'avait appelé Jeanne?

MC: En souvenir de son travail... c'était le dernier et comme c'était le dernier, il a voulu qu'il ait le nom de sa fille.

VL: Vous avez fait un voyage sur ce bateau?

MC: Oh! Non, il n'y avait pas de voyageurs; c'étaient des marchandises.

VL: Qu'est-ce que c'était comme bateau?

MC: Oh... bizarre; la mahonne, c'était un gros bateau immense, immense, très gros.

VL: C'était un bateau fabriqué en bois, ou en métal?

MC: En bois, en bois, et il se chauffait au charbon. Après ç'a été... la mahonne, ç'a été, ç'a été le dernier. Et avant, il avait fait un trois-mâts; il avait fabriqué un trois-mâts.

VL: Comment il s'appelait ce trois-mâts, vous vous rappelez?

VL: Why was it that he had called it Jeanne?

MC: In remembrance of his work...It was the last one and because it was the last one, he wanted it to have his daughter's name.

VL: Did you take a trip on that boat?

MC: Oh no, there were no passengers; it was cargo.

VL: What kind of boat was it?

MC: Oh...weird; the mahonne, it was a big, huge boat, huge, very big.

VL: Was it a boat made of wood, or metal?

MC: Wood, wood, and it was heated with coal. After that it was... the mahonne, it was, it was the last one. And before that, he had made a three-master; he had made a three-master.

VL: What was the name of that three-masted ship, do you

MC: Ah! Non, le trois-mâts, non.
 VL: C'était pour aller sur la mer?
 MC: Oui, pour les marchandises. Les marchandises, en pleine mer.
 VL: C'était pas pour naviguer sur le Rhône?
 MC: Oh! On n'aurait pas pu le mettre! Il était immense... Je m'en rappelle... le dernier, le dernier...
 VL: Les mahonnes, il y avait quelque chose qui les tirait?
 MC: Je ne sais pas.
 VL: Elles étaient tirées par des chevaux, par des remorqueurs?
 MC: C'étaient de grosses pièces... énormes. Ça marchait au charbon. Et c'était le dernier.
 VL: Sur la mahonne...
 MC: Eh bien?
 VL: il y avait un moteur, à vapeur?
 MC: Non, non, ça marchait au charbon.
 VL: Il y avait des roues

remember?
 MC: Oh, no, the three-master, no.
 VL: It was to go on the sea?
 MC: Yes, for the goods. The goods, on the open sea.
 VL: It wasn't to sail on the Rhône?
 MC: Oh, we couldn't have used it there! It was huge... I remember... the last one, the last one...
 VL: The mahonnes, was there something pulling them?
 MC: I don't know.
 VL: They were pulled by horses, by tugs?
 MC: They were big pieces...huge. It was coal powered. And that was the last one.
 VL: On the mahonne...
 MC: Well?
 VL: There was an engine, steam?
 MC: No, no, it ran on coal.
 VL: Did it have side

de côté? Est-ce qu'il avait des aubes de côté?
 MC: Oh! Des ouvriers, il y en avait beaucoup et le directeur s'appelait Montino; le directeur des ouvriers, il s'appelait Montino, un Italien.
 VL: Vous vous rappelez le lancement de La Jeanne?
 MC: Eh bien, c'était une mahonne.
 VL: Est-ce qu'il y avait eu une fête?
 MC: Oui, je comprends!
 VL: Racontez-moi comment c'était.
 MC: C'était à la Roquette. Toute la Roquette était venue. C'était un dimanche. Toute la Roquette était venue. C'était plein de monde. Et il y avait des ouvriers. Quelqu'un a dit: "C'est le moment de le lancer." Mon père a dit: "Enlevez les épontilles!" Alors, tous les ouvriers sont venus. A coups de marteau, ils

wheels? Did it have side vanes?
 MC: Oh, there were a lot of workers, and the manager's name was Montino, the manager of the workers was Montino, an Italian.
 VL: Do you remember the launch of La Jeanne?
 MC: Well, it was a mahonne.
 VL: Was there a party?
 MC: Yes, I understand!
 VL: Tell me what it was like.
 MC: It was at La Roquette. The whole of Roquette came. It was a Sunday. All of La Roquette came. It was full of people. And there were workers. Somebody said, "It's time to launch it." My father said, "Take off the épontilles!" So, all the workers came. With hammers, they removed the pads. At the last one, when the

ont retiré les épontilles.
 Au dernier, quand le
 bateau commençait
 à glisser, la musique
 jouait La Marseillaise!
 VL: Vous y étiez, vous?
 MC: Oui, mon père
 a voulu que j'y sois.
 Je devais avoir une
 dizaine d'années. Une
 belle robe.
 VL: Elle était comment,
 cette robe?
 MC: Elle était en
 broderie anglaise
 blanche avec une
 grande ceinture de
 satin bleu sur le ventre
 et un gros nœud
 derrière
 VL: Vous aviez un
 chapeau?
 MC: Ah! non, non...
 une belle coiffure...
 on m'avait frisée. Ah!
 j'étais belle!
 VL: Vous aviez des
 "anglaises"...
 MC: Ah! non...
 VL: Ou vous étiez
 frisée?
 MC: Frisée, frisée.
 VL: Qu'est-ce que

boat started to slide,
 the music played La
 Marseillaise!
 VL: Were you there?
 MC: Yes, my father
 wanted me to be there.
 I must have been
 about ten years old. A
 beautiful dress.
 VL: What was this
 dress like?
 MC: It was made of
 white broderie anglaise
 with a big blue satin
 belt on the belly and a
 big bow behind it.
 VL: Did you have a hat?
 MC: Oh, no, no... a
 beautiful hairdo... I had
 been curled. Ah! I was
 beautiful!
 VL: You had ringlets...
 MC: Ah, no...
 VL: Or did you have
 curls?
 MC: Curly, curly.
 VL: What was that
 orchestra playing?
 MC: Oh my... that...!
 VL: Was that the band?
 MC: It was the city
 band... that was there

c'était, l'orchestre qui
 jouait?
 MC: Peuchère... ça...!
 VL: C'était la fanfare?
 MC: C'était l'orchestre
 de la ville... qu'il y avait
 à l'époque, qui a joué La
 Marseillaise, quand le
 bateau a glissé.
 VL: Est-ce qu'il y avait
 beaucoup d'invités?
 MC: Il y avait le maire,
 le sous-préfet et des
 amis. Le... le... le...
 directeur, celui... qui a
 fait un bateau, eh ben,
 le constructeur.
 VL: Vous l'avez baptisé,
 le bateau?
 MC: Ce n'est pas moi,
 c'est mon père; j'avais
 dix ans, moi! C'est mon
 père!
 VL: Il l'a baptisé avec
 une bouteille de
 champagne?
 MC: Naturellement...
 obligatoire! Il était...
 mon père était très
 aimé des ouvriers
 et quand ç'a été le
 moment, il les a invités
 à sa table.

at the time, that played
 La Marseillaise, when
 the boat slipped.
 VL: Were there many
 guests?
 MC: There was the
 mayor, the sub-prefect,
 and friends. The... the...
 the... director, the one...
 who made a boat, well,
 the builder.
 VL: Did you name the
 boat?
 MC: It wasn't me; it was
 my father; I was ten
 years old! It was my
 father!
 VL: He christened
 it with a bottle of
 champagne?
 MC: Naturally...
 obligatory! He was...
 my father was very
 fond of the workers
 and when it was time,
 he invited them to his
 table.
 VL: He invited them?
 MC: Well, he had a table
 added for them.
 VL: So, it was a big
 meal?

VL: Il les a invités?
 MC: Eh bien, il a fait ajouter une table pour eux.
 VL: C'était un grand repas, alors?
 MC: Pas un repas, un apéritif... il y a eu du champagne.
 VL: Et ce bateau, vous l'aviez fait bénir?
 MC: Ah! Oui! Il y avait le curé à l'époque. Il y avait... il venait avec tous les accessoires: le curé, les deux vicaires, en grande tenue. Ils ont... Mon père a dit: "Bénissez le bateau!" Les prêtres ont béni le bateau. Quand le bateau commençait à glisser, la Marseillaise jouait. Ah! Je m'en rappelle, de ce jour... Belle fête!
 VL: C'est une fête qui avait duré un bon moment?
 MC: Ben oui... assez. Avant que toutes ces épontilles... il y avait beaucoup d'épontilles,

MC: Not a meal, an aperitif... there was champagne.
 VL: And this boat, did you have it blessed?
 MC: Ah, yes, there was the priest at the time. There was... he came with all the accessories: the parish priest, the two vicars, in full dress. They had... My father said: "Bless the boat!" The priests blessed the boat. When the boat began to slide, the Marseillaise played. Ah! I remember that day... Beautiful party!
 VL: It was a party that lasted a long time?
 MC: Well, yes... quite a while. Before all those épontilles... there were a lot of épontilles, a lot, the boat was very big and it lasted, the hammering went on for a long time. Ah! *Pécaire*! My father, to the priest: "Bless."

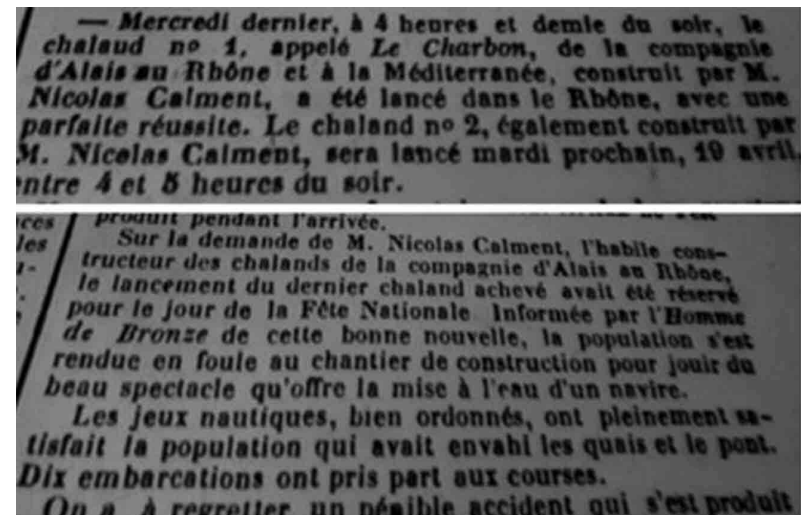
beaucoup, le bateau était très gros et ça a duré, les coups de marteau ont duré un bon moment. Ah! Pécaire! Mon père, au curé: "Bénissez." Après la bénédiction, le bateau a glissé lentement. Je suis partie en voyage!
 <Laughs>
 VL: Vous aviez quel âge, à ce moment-là?
 MC: Une dizaine d'années, huit ou dix ans, oh! Pas plus.

After the blessing, the boat slid slowly. I went on a trip! <Laughs>
 VL: How old were you at that time?
 MC: About ten years old, eight or ten years old, oh, no more.

And so it was that a century later Mme Calment told the story of her father's last big day at work. Allard and Robine were impressed by her recollection of the event, and the technical jargon of the time that she used. She called the boat a "mahonne" and described how they struck away the "épontilles" to release the ship into the river. Mme Calment's supporters have marked this as extraordinary evidence of her authenticity [29].

Was "La Jeanne" real or just a figment of Madame Calment's imagination? In a piece for Readers Digest Dr. Lèbre claimed that it was launched on a Sunday of June 1885 [18]. This suggests that he had some material to consult since she hadn't provided him with these

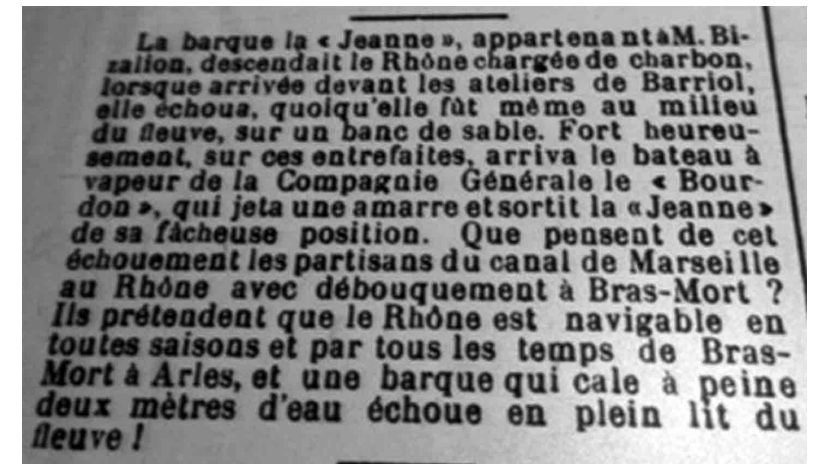
details.



1881 reports for the first and the last chalands launched by Calment

The last chaland built for the railway company was launched on the national holiday on 14th July 1881 according to the request from Nicolas. We know that the first chaland was named "*Le Charbon*" but the name of the last one was not stated in the newspaper. Since then, no more reports of ships by Calment were found in the the "*Homme de Bronze*".

However, Patricia Couturier discovered later details that confirm the existence of a ship called "*La Jeanne*" in Arles. A newspaper report from 1895 describes how "*La Jeanne*" owned by M. Bizalion ran aground on a bank in the Rhône while carrying a cargo of coal and had to be pulled clear by a steamboat.



La Jeanne runs aground (20.10.1895)

The Bizalion family of shipowners, originally from Saint-Etienne, used their fleet of barges to transport coal from there. Paul Bizalion was a well-known industrialist in Arles who supplied the town with gas, which could be obtained by heating coal.

This could have been the ship that Mme Calment described as a coal ship that was not powered by steam. However, "*Jeanne*" was a common name for a boat after the 15th century martyr and patron saint Joan of Arc, so it is hard to be certain. Bizalion later acquired other ships named "*Jeanne d'Arc*".



Ship launch in Barriol, Arles, early 1880s

Patricia Couturier has also found a photograph from an album devoted to naval construction showing the launch of a *penelle* boat with a crowd and dignitaries present such as a priest to bless the ship. This matches very well the Calment's description. The man with moustache standing near the table could be Nicolas, followed by his wife Marguerite Gilles, her mother Rose Minaud, unidentified lady, and Marguerite Minaud with the young Jeanne Calment. The priest could be *l'abbé* Bourges who cooperated with Jeanne's teacher Mme Benet-Coste in 1882.

Mme Calment even remembered the name of the director of works – M. Montino (we are not aware

whether he was fictional or not). Quite remarkable considering that she could not recall any names of her school friends.

However, she also got some details wrong. She said the boat was launched in La Roquette, the quarter of Arles where they had lived, but the ships were built and launched further downstream at Barriol.



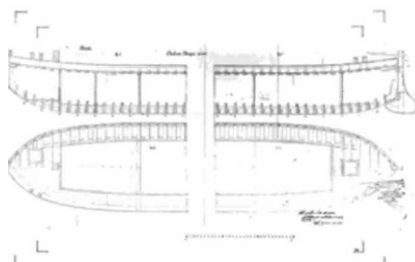
Langlois bridge over the canal from Barriol to Bouc, Van Gogh, 1888

She described the boat as being for the high seas and much too big for use on the river, but in this case, it had to be launched in the port of Bouc and not in Arles as she claimed, otherwise it would be impossible to transfer the ship to the sea. An "immense" vessel she

described would not be able to navigate the canal from Barriol to Bouc which allows a maximum width of 8m and a draft of about 1.9m.

The chalands sold in 1885 were designed to carry 200 tonnes of coal in shallow waters and sized to fit into the channel. These boats were also called "*Chalands de mer*" (Seagoing barges), so they could have crossed the sea directly to Marseille from Bouc in good conditions. If Mme Calment saw the term, she might have assumed that they were not intended for the river.

The boat "Jeanne" owned by Bizalion could be one of those chalands or penelles built by Nicolas in 1881. She told Paris Match that his last boat was a sailing ship, but in the final version with her validators it was the previously built ship that was a three-master.

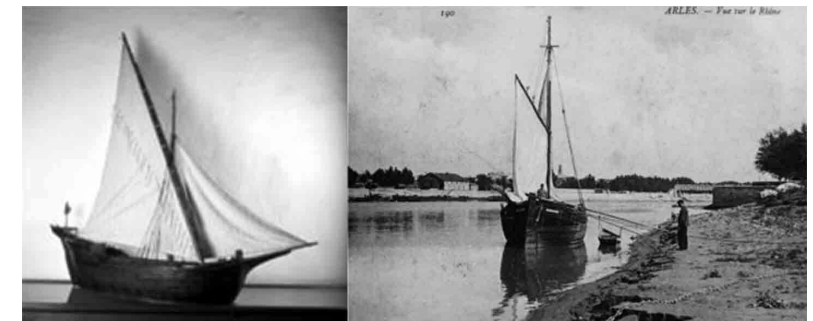


Patent for a challand by Nicolas, 1882 Chalands constructed in 1880s

In 1882 Nicolas Calment took out a patent for a boat which was described on its technical drawings as a "Challand Barque Mixte". We know that such ships were built in Arles at that time.

The ambiguous name *mahonne* mostly referred to boats used to unload cargo from the barges to the quai but

could also be applied to the sailing ships. We found the term used in local newspaper reports after 1900 but not before. The mahonne could probably be taken out to sea, but it was not too large for the river as Mme Calment stated.



Model boat by Pierre Calment

Mahonne on the Rhône in 1907

In the Arlaten museum there was a model of a "*bateau allège*" (lightened boat), a donation of Jean Boudignion, the last ship builder in Arles. It was constructed in the XVIII century by Pierre Calment, the grandfather of Nicolas and restored by Henri Boudignion. Recently Christian Grant was told on a visit that the museum removed all artefacts related to Calments, which is disappointing because even if Mme Calment was never a centenarian, her story is still an important part of Arles history and should be celebrated.

Honoré Boudignion started producing mahonnes around 1902 perhaps inspired by that Calment model. He built and baptized the boat "*Jeanne d'Arc*" in 1909. In 1911 a boat "*Madeleine*" was stolen from his shipyard at chemin de l'Abattoir. This was the street where Jean-

Baptiste Calment, partner of Nicolas, died in 1885. Nicolas Calment might have worked with Boudignion part time.

In 1909 we can see them both listed as experts in the *Indicateur Marseillais*. Newspapers reported the launches of mahonnes by Boudignion until at least 1932.

The shipbuilders Honoré and Henri Boudignion were brothers who married sisters Elise and Jeanne Mille. Honoré had a daughter Magdeleine Jeanne (1902-1998). The stolen mahonne was probably named after her. This or other boats built when Yvonne was a child could have inspired the story told by Madame Calment later.

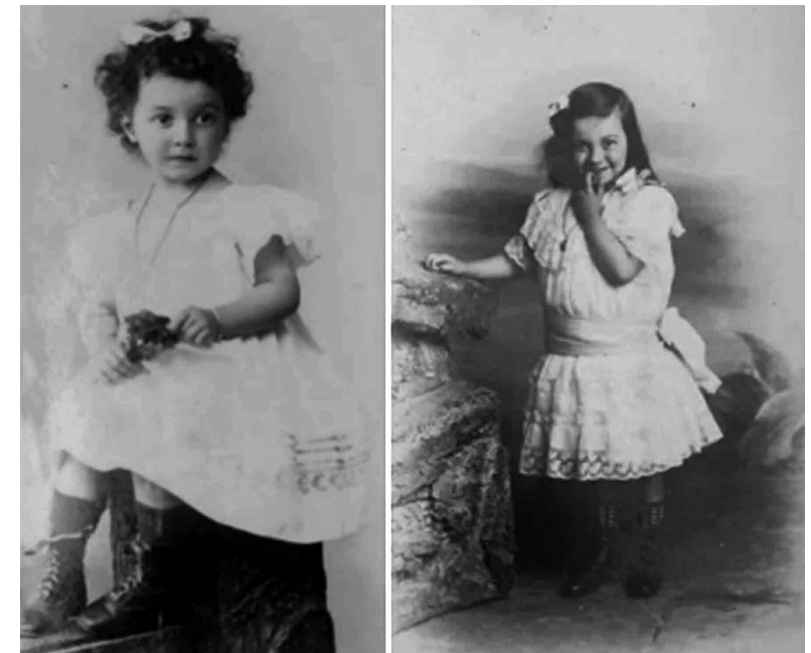
Magdeleine Jeanne married Gaspard Coron while Honoré himself remarried Marie Louise Coron (aunt of Gaspard) in 1917. The Corons were neighbours of the Calments at place d'Antonelle, this dynasty of butchers has been producing famous sausages made from pork and donkey meat there since 1740.

In 1928 Madeleine Boudignion together with her husband sold Jeanne and Fernand two buildings adjacent to the Maison Calment on rue du Théâtre. These buildings were used as a furniture store and later rented to Bouissons in 1938 together with the other premises of the store.

The 1931 census shows that the Corons moved to rue Sadi Carnot. Most of the Calment's neighbours were new and probably didn't interact much with them making the potential identity switch easier to perform.

Madame Calment described the dress she wore at the

launch as a white broderie anglaise with a blue sash around the middle, tied in a bow at the back. This fits well a style of dress worn by Yvonne as a child for a photo taken a generation later.



Yvonne with a curly hairdo and in a dress as described for the launch of "La Jeanne"

These points lead us to suspect that Mme Calment was Yvonne retelling a story mixing her own experience with that of her mother. In that case, how could she recall the event in such detail?

Of course, she knew her grandfather very well as she was 33 when he died. It is very likely that Nicolas or

Jeanne would tell the story of the launch at gatherings of family and friends. With repetition Yvonne could remember it well, but if that was the case, why had she not told this beautiful story before? It turns out that this was not her only source.

When Mme Calment died in 1997, an edition of Paris Match revealed that reporters had earlier found a locked box in a safe at the Calment apartment [30]. This could have been used nine years earlier for their 1988 interview. They said that the key had been lost for 30 years, yet Mme Calment knew there were some documents inside.

When they opened it in her presence, they found papers belonging to Jeanne's father, including plans and technical details of the ship launch. According to the journalist the boat was a "*voilier*" (a sailing ship). The report claimed that the documents confirmed the name of the ship as "Jeanne". Although the contents have since been lost it might have included the photo of the launch party like that shown here, although it appears to be a different kind of ship.

It is not reported what happened to the box or its contents which had presumably been shown to Mme Calment before they wrote the 1988 article. It is likely that the papers were left in her keeping, giving her friends or the validators a chance to go through them with her. This could be how Victor Lèbre was able to provide a date for the launch.

In summary it is therefore no surprise or mystery that she was able to provide vivid details of the occasion which convinced her supporters that she had been

present.

Conclusion: The story of "*La Jeanne*" could be based on a real event, or perhaps a compendium of what Mme Calment knew about several different ship launches. Her validators claim that its accuracy proves her authenticity, but it is likely that this story would have been repeatedly told by Jeanne and Nicolas in the presence of Yvonne. Yvonne could also use her own memories about the launches that she witnessed herself. Preserved documents found in a locked box provided her with more details.

In fact, there remain inaccuracies that undermine the claim that she was really there. It therefore does not provide any positive evidence of her authenticity. We assign this evidence the neutral likelihood ratio of 1.

DEATH OF ESPARTERO

[7] (29 Jan 1993 20:43)	Translation
MC: Corridas, ça m'intéressait médiocrement, mais enfin, ça m'intéressait quand même.	MC: Corridas, I was only mildly interested in them, but I was still interested.
VL: Et vous avez vu de belles corridas?	VL: And did you see any good bullfights?
MC: Oui, très belles. Toujours au parterre <incompréhensible>, et des grands gars, des gars.	MC: Yes, very beautiful. Always in the parterre <incompréhensible>, and big guys, guys.
VL: Qui c'était Espartero?	VL: Who was Espartero?
MC: Ah, un Espagnol.	MC: Ah, a Spaniard.
VL: Vous l'avez vu à quel endroit? À Arles?	VL: Where did you see him? In Arles?
MC: Il était venu à Arles. Il se déplaçait. C'était un grand matador. Moi-même... Je m'intéressais au monde, les arènes pleines, c'était merveilleux. Je faisais	MC: He had come to Arles. He was moving around. He was a great matador. I myself... I was interested in the crowd, the full arenas, it was wonderful. I took the photos. For me, bullfighting by itself, it never

les photos. Pour moi la corrida par elle-même, ça m'a jamais intéressée.

VL: Vous faisiez des photos à ce moment-là?

MC: Comment?

VL: Vous faisiez des photos?

MC: Oh, non, non.

VL: Et d'Espartero vous en rappelez bien?

MC: Physiquement non. Mais son travail oui... Il escorté taureau d'une façon magistrale.

VL: Et vous savez comment il est mort?

MC: Ah, nature.

Semble... fatale par le taureau.

VL: Il ne lui est rien arrivé à cet Espartero?

MC: Comment?

VL: Est ce qu'il lui est arrivé quelque chose?

MC: Je comprends pas, je comprends pas.

VL: Est ce qu'il lui est arrivé quelque chose à Espartero?

MC: Il a été tué par

interested me.

VL: You were taking photos at that time?

MC: What?

VL: Did you take photographs?

MC: Oh, no, no.

VL: And do you remember Espartero well?

MC: Physically no. But his work, yes... He escorted the bulls in a masterly way.

VL: And do you know how he died?

MC: Ah, nature.

Seems... fatal by the bull.

VL: Did nothing happen to this Espartero?

MC: What?

VL: Did anything happen to him?

MC: I don't understand, I don't understand.

VL: Did anything happen to Espartero?

MC: He was killed by the bull, <crying> victim of his job. It was

le taureau <crying>, victime de son métier. C'était fatale!! Et il a été tué d'un coup d'épée <crying>.	fatal! And he was killed by a sword <crying>.
VL: Est-ce qu'il y a eu un service religieux?	VL: Was there a church service?
MC: Comment?	MC: What?
VL: Est qu'il y a eu un service religieux?	VL: Was there a church service?
MC: Aa...	MC: Aa...
VL: Vous ne vous rappelez pas?	VL: Don't you remember?
MC: Ça s'est fait en Espagne.	MC: That was done in Spain.

From this interview we learn that Mme Calment liked the crowd at the bullfighting spectacle. Initially she said that she took pictures but then withdrew this claim.

Given her intonation it seems like a slip that she backtracked on. We know that Yvonne's son Freddy was an amateur photographer. The pictures of Jeanne reading a book, playing the piano and leaning on her hand are home photos which could be taken by Yvonne, Fernand or Maria. It is however extremely unlikely that Jeanne used a camera at a bullfight in the 19th century when the Espartero she is believed to be talking about was still alive.

It seems that Dr. Lèbre misheard "*parterre*" as *Espartero*

and that led to his follow-up question. Espartero was a common name among matadors. Which one were they talking about?

There was a famous Spanish matador called El Espartero (real name Manuel García Cuesta) who died while bullfighting in Madrid in 1894 when Jeanne was not married yet. Before jumping on Espartero, the bull received a fatal sword blow from the matador, matching the Calment's description:

La Provence Nouvelle, 03.06.1894	Translation
Espartero a été tué, dimanche, à Madrid, au moment où il frappait le 1er taureau de la course, d'une estocade mortelle.	Espartero was killed on Sunday in Madrid when he hit the first bull in the race with a fatal sword.
En recevant le coup d'épée, le taureau s'est jeté inopinément sur Espartero et lui a ouvert le ventre d'un terrible coup de corne. Puis il est tombé mort à côté de sa victime agonisante. Très joli spectacle pour les aficionados!	On receiving the sword blow, the bull unexpectedly threw himself on Espartero and opened his belly with a terrible blow of his horn. Then he dropped dead next to his agonised victim. A very nice show for the aficionados!
Manuel Garcia, surnommé Espartero,	Manuel Garcia, nicknamed Espartero,

n'était âgé que de 28 ans. Il avait rapidement amassé une grosse fortune et comptait se retirer, après avoir épousé une richissime veuve de Séville.

was only 28 years old. He had quickly amassed a large fortune and was planning to retire, having married a wealthy widow from Seville.



Espartero killed by a bull in Madrid, 1894

Fernando Villalón, a poet from Seville, described the funeral:

"Black waist scarves and a ribbon in the hat. Two widows with black carnations in their black hair. Black cummerbund and bow tie black, with a black ribbon on the gold of the sleeve, the 'chupa' of the bullfighters. Eight horses carried Espartero's carriage."

Although that incident fits Mme Calment's description of what took place, the date and location were wrong.

The real name of another toreador called Espartero was Manuel Comeche y Alcántara. He died at Nîmes (44km from Arles) after receiving a fatal blow from the bull's horn to the perineum on 4th October 1896. Initially he was able to walk away, and the spectators were not aware of the injury, but he died several days later. This occurred six months after Jeanne married so it was possible for her to witness the event which was widely covered in the local press:

La Provence Nouvelle, 11.10.1896	Translation
Tauromachie, Nîmes. Quand interdira-t-on ces jeux sauvages? Espartero, l'amour des aficionados, Espartero est blessé mortellement.	Bullfighting, Nîmes. When will these wild games be banned? Espartero, the love of the aficionados, Espartero is mortally wounded. On Sunday he

Dimanche il a reçu un coup de corne au périnée! La blessure est profonde de huit centimètres. Dès le premier moment les médecins ont réservé leur pronostic...

L'infortuné Espartero, de son vrai nom Manuel Comeche, a succombé à son horrible blessure. Il n'avait que 26 ans; il laisse une épouse désolée et deux jeunes orphelins. "Il est mort au champ d'honneur"! Si ça peut être une consolation pour eux, les voilà consolés. Quant aux aficionados dont les instincts sanguinaires et égoïstes ont envoyé ce jeune homme à la mort, ils sont positivement désolés! ... A Arles, le procès-verbal traditionnel, mais bête, a été

was hit by a horn in the perineum! The wound is eight centimetres deep. From the first moment the doctors reserved their prognosis...

The unfortunate Espartero, whose real name was Manuel Comeche, succumbed to his horrible wound. He was only 26 years old; he leaves a desolate wife and two young orphans. "He died on the field of honour"! If it's any consolation to them, they've been consoled. As for the aficionados whose bloodthirsty and selfish instincts sent this young man to his death, they are positively sorry! ...

In Arles, the traditional but silly report was drawn up, at the end of the race, to Mr. Marcel Millaud, director, as well as to the matadors Esparterito and Leverito

dressé, dès la fin de la course, à M. Marcel Millaud, directeur, ainsi qu'aux matadors Esparterito et Leverito qui ont estoqué un taureau et blessé un autre. Ça leur a coûté 5 francs; c'est le tarif de l'abonnement à la violation de la loi: 5 francs qui en rapportent 5 000; ce n'est pas cher. Aussi, Dimanche nouvelle course.

who had killed one bull and wounded another. It cost them 5 francs; that's the subscription fee for breaking the law: 5 francs for 5,000; that's not expensive. Also, on Sunday, another race.

Le Mémorial d'Aix, 11.10.1896	Translation
Nîmes. Les obsèques du malheureux matador Comèche, dit Espartero, ont eu lieu hier, à 9 h. 1/2; le cercueil déposé sur un modeste corbillard était précédé de plusieurs couronnes offertes	Nîmes. The funeral of the unfortunate matador Comèche, known as Espartero, took place yesterday at 9.30 a.m.; the coffin, placed on a modest hearse, was preceded by several wreaths offered by his comrades, by a

<p>par ses camarades, par un groupe d'aficionados, par la direction des Arènes, par le personnel, etc.; un drap d'honneur était porté par des aficionados; les cordons du poêle étaient tenus par plusieurs toréadors qui avaient travaillé avec Espartero; MM. Charles Mathieu, premier adjoint au maire, et Crouzat, vice-consul d'Espagne, marchaient immédiatement après le cercueil; Marcia, directeur des Arènes, venait après eux et la suite était composée de nombreux amis. Sur tout le parcours du convoi un grand nombre de curieux formaient la haie. Ce deuil ne fait pas oublier que demain ont lieu d'autres courses...</p>	<p>group of aficionados, by the management of the Bullring, by the staff, etc.; a sheet of honour was carried by aficionados; the cords connected to the funeral sheet were held by several bullfighters who had worked with Espartero; MM. Charles Mathieu, first deputy mayor, and Crouzat, vice-consul of Spain, walked immediately after the coffin; Marcia, director of the Bullring, came after them and the suite was composed of many friends. Many onlookers formed a hedge along the entire route of the convoy. This mourning does not make us forget that tomorrow there will be other bullfights...</p>
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Le Mémorial d'Aix, 25.10.1896	Translation
<p>Il est vrai que la corrida du dimanche 18 octobre, à Nîmes, donnée au bénéfice de la veuve et des enfants du regretté torero Manuel Comèche Espartero, a produit la somme de 1,712 fr. 70 qui a été versée par M. Marcia, directeur des arènes entre les mains de M. Crouzat, vice-consul d'Espagne, lequel les a transmis à la veuve.</p> <p>Mais ne vaudrait-il pas mieux qu'Espartero fût encore vivant?</p>	<p>It is true that the bullfight of Sunday 18 October in Nîmes, given for the benefit of the widow and children of the late bullfighter Manuel Comèche Espartero, produced the sum of 1,712 fr. 70 which was paid by Mr. Marcia, director of the bullring, into the hands of Mr. Crouzat, vice consul of Spain, who passed it on to the widow.</p> <p>But wouldn't it be better if Espartero were still alive?</p>

The funeral for this Espartero was held on 10th October in Nîmes with the Spanish vice-council present, so this is not consistent with her account that it was in Spain. Espartero's death and legacy was described by the corrida expert Don Ventura (translated from [31]):

"When Comeche offered him the cloth, like someone out of the blue, he hooked him by the

crotch, suspended him for a moment and left him standing upright. So practical was the cuckold in giving gifts that he handed them out without anyone knowing except the victim.

When Espartero left, the public, who did not attach importance to the event, could not suspect that the bullfighter had suffered a serious injury; so serious that doctors appreciated intestinal destruction, as a result of which came peritonitis and then death, which occurred on the 7th of that same month.

Apart from this role of victim, which is a very unpleasant role, I do not know that the Espartero of Valencia did anything remarkable in his life, and if he did, no one knew about it."

This description suggests that unlike his namesake Manuel García who died in Madrid, the Espartero who died in Nîmes was not a remarkable master, so again Manuel García would be a better match for Calment's testimony.

However, Dr. Lèbre decided that she was talking about Manuel Comeche probably because the story of her witnessing the death of Espartero would be more dramatic than the story of her knowing that the famous Espartero died.

The transcription of the interview from 29 January 1993 in the validators' book [2] p100, [3] p106 includes Dr. Lèbre mentioning that Mme Calment witnessed the terrible death of Espartero at Nîmes in front of her. She

confirms and provides further details of how the bull had killed the matador, jumping on top of him.

From the validators' book [3] p106	Translation
VL: Et vous avez vu de belles corridas? MC: Oui , très belles et j'ai vu de grands , de grands toréadors ... J'ai vu Espartero. VL: Qui était Espartero? MC: Un Espagnol. Il était venu en Arles; il se déplaçait. C'était un grand matador. Les arènes pleines, c'était merveilleux. VL: Vous m'avez dit qu'il était mort à Nîmes devant vous, Espartero. MC: Oui , le taureau lui avait arraché le manteau. Alors, il s'est vautré sur lui. Souvenir pénible! Oh! Oh! Les arènes étaient combles!	VL: And you watched some good bullfights? MC: Yes, very good and I saw the great ones, the great toreadors. I saw Espartero. VL: Who was Espartero? MC: A Spaniard. He came to Arles, he moved around. He was a great matador. The arena was sold out; it was wonderful. VL: You told me that Espartero died in front of you in Nîmes. MC: Yes, the bull tore off his coat. Then he jumped on top of him. A painful memory! Oh! Oh! The arena was packed!

This again matches the story of the death of Manuel García in Madrid but does not match the Ventura's

description of the death of Manuel Comeche in Nîmes.

It seems that in the book the transcription was edited, and some new phrases were added so that we see the dramatic story of her presence at his death in Nîmes. On the original tape, after being asked about his fate she only suggested that Espartero became a victim of his profession, killed by a bull; she also mentioned a sword and said that the religious service was held in Spain.

Her description much better fits the famous death in Madrid but apparently her validators understood that Jeanne was unlikely to be present there two years before her marriage. They believed that if Mme Calment were Jeanne, then after 100 years of going over the events in her mind she could be excused for mixing memories or exaggerating the spectacle a little.

There was an interview in 1995 from which we learn that they had other discussions on the subject. Unfortunately, these are not found on the published tapes.

Dr. Lèbre liked to watch the bullfights from the barrera, the front row. After his death, the magazine *Toros* put a bouquet of flowers in his reserved place in the Arenas of Arles [1] p104. Given his knowledge of corrida history, he might have inadvertently prompted Mme Calment with some historical details that he knew, including the name of Espartero.

Bullfighting has always been popular in Arles. During her married life Jeanne Calment was surrounded by people who loved corrida. Fernand's cousin Louis Calment (1867-1906) was president of "*Club Taurine*", a corrida fan-club in Arles which still exists in 2022.

In 1927 another cousin of Fernand's, Nicolas Crouanson, founded the bullfight race "*Cocarde d'or*" at the Arles arena, which also survives to this day. His daughter Fernande Crouanson was a lawyer who defended the legality of bullfighting.

In 1932 "*Le Radical du Vaucluse*" reported a story about a calf that escaped from the march to the slaughterhouse across the Trinquetaille Bridge and tried to find a refuge in the Maison Calment. To his misfortune, all the employees of the store were fans of corrida and one of them, Marius Maxence, seized the calf and led it back to the herd. The show had a great success among the children of the neighbourhood who compared it to the night bullfights at the Arena, with the bull being moved around the ring.

Mme Calment repeatedly claimed to be never afraid of anything but here she said that Corrida did not please her. It was Fernand who adored it, so he usually went there alone. She liked the procession of the body of the defeated bull across the arena but not the bullfight itself which was too dangerous:

[7] (15 Jun 1995 16:45)	Translation
VL: Et à ce moment-là, vous alliez aux corridas?	VL: At that time, you were going to the corrida?
MC: Mon mari. Moi je n'aimais pas, ne me plaisait pas ça.	MC: My husband. I didn't like it; I didn't like it.
VL: Pourquoi vous n'aimiez pas la corrida?	VL: Why didn't you like

MC: Ah non, ça ne me plaisait pas. Le matador était en danger et la bête était grave. Non. Mon mari adorait ça lui, quand il y allait, il allait seul.

VL: Vous savez, j'aime beaucoup les corridas?

MC: Ah Ben, vous n'êtes pas le seul. Il y a beaucoup d'amateurs.

VL: Et un jour vous m'avez demandé si Madame Lèbre m'accompagnait. Alors, je vous ai dit oui, et vous m'avez dit, maintenant, elle est bien dressée.

MC: M'en rappelle pas ça.

VL: Si, un jour vous m'avait dit: "Mais maintenant elle est bien dressée comme moi." Puisque vous accompagniez Monsieur Calment.

MC: J'ai lui accompagniez quelquefois, pour voir la mise en

bullfighting?

MC: Oh no, I didn't like it. The matador was in trouble and the animal was dangerous. No. My husband loved it, when he went, he went alone.

VL: Do you know that I like bullfighting a lot?

MC: Ah well, you are not the only one. There are many amateurs.

VL: And one day you asked me if Madame Lèbre was going with me. So, I said: "yes", and you said: "now she's well trained".

MC: I don't remember that.

VL: Yes, one day you said: "But now she is well trained like me." Since you were accompanying Mr. Calment.

MC: I accompanied him sometimes, to see the staging, the entrance, the presentation, but when danger was there, I didn't like it

scène, l'entrée, la présentation mais qu'il faut que danger y était, ça ne me plaisais plus.

VL: Vous aimiez que le *paseo* alors.

MC: Oui. Oui. J'aimais aussi... Quand le matador avait réussi, la procession du corps du taureau qui a fait le tour de l'arènes.

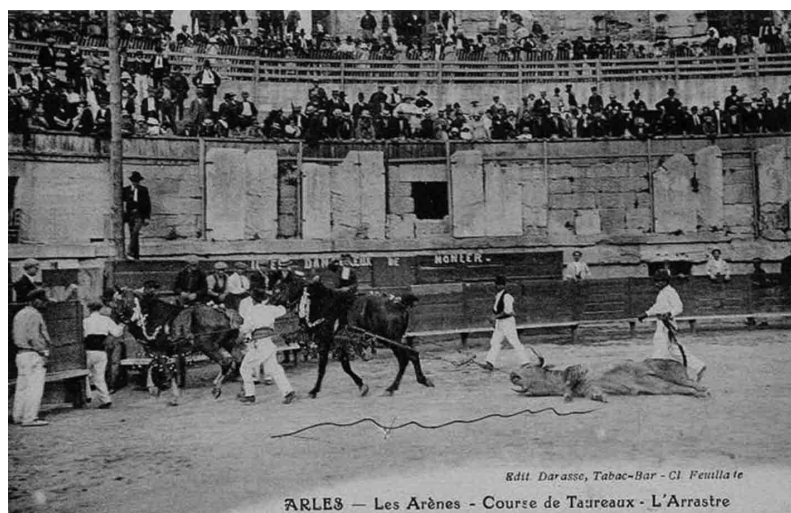
VL: C'est toujours très émouvant. Quand on voit le taureau et qu'on lui fait faire un tour de piste. C'est toujours très émouvant.

anymore.

VL: You liked only the *paseo* then.

MC: Yes. Yes... I also liked... when the matador had succeeded, the procession of the bull's body which went round the arena.

VL: It's always very moving. When you see the bull and you make him go around the ring. It's always very moving.



Arrastre in Arles arena

If Jeanne or Fernand really did see the death of Espartero, they would have told the story at family gatherings or in private whenever the subject of bullfighting came up. The death of the more famous Espartero in Madrid was probably well known to Fernand. Yvonne would have heard about it repeatedly. She might have seen a picture of the famous Espartero, and could have reproduced the story of his death without hesitation as if she were Jeanne.

When Zak initially investigated Calment's longevity, this story caused him some confusion because the most famous El Espartero died while bullfighting in Madrid in 1894, before Jeanne married. The location and date did not seem to fit the book account, but the name did. Later François Robin-Champigneul found a newspaper article about Espartero who died in Nîmes and this was

repeatedly cited as evidence by supporters of Calment's authenticity [29, 32].

Analysis of the recently published tape recordings shows that the foundation for this evidence was very shaky.

The *Espartero* story does not appear in any prior media report and seems to have been prompted and originated by confusion. The transcript in the validators' book mentioning Nîmes does not match the published tapes, where her account corresponds to the death in 1894 in Madrid and is not compatible with the death in 1896 in Nîmes. The tale that he died there in front of her was either invented or prompted on lost tapes.

Conclusion: The “Espartero” evidence can be viewed as one of many examples of misrepresentation of her interviews used both in the validation and later the revalidation of authenticity of Mme Calment. We assign this evidence the neutral likelihood ratio of 1.

On the other hand, Mme Calment's attempt to claim that she made pictures while watching Espartero in Arles is evidence in favor of the switch.

HER FIRST FLIGHT

"à 40 ans, elle avait même passé son baptême de l'air" [11]



Léo Lelée, the flight over Maillane

Madame Calment claimed that she took her first flight at 40 years old. For Jeanne that would have been 1915 – the middle of the First World War.

This quote comes from the Paris Match interview of 1988 [10, 11]. The story is confirmed by Mme Calment in later audio recording. Her age for the flight is only

given in the Paris Match article, but since other details from there have been corroborated it is likely that she genuinely gave the reporter this detail.

[7] (15 and 22 Sep 1994 04:10)	Translation
VL: Et est-ce que vous êtes monté vous-même en avion?	VL: And did you fly in an airplane yourself?
MC: Oui.	MC: Yes.
VL: Comment ça se passait?	VL: How did it go?
MC: Très bien.	MC: Very well.
VL: Ça se passait à Arles?	VL: It happened in Arles?
MC: Oui. Il y avait une société qui fait monter les clients, "Arles Survole".	MC: Yes. There was a company that took the clients up, "Arles Survole".
VL: C'était un sort de baptême de l'air?	VL: It was a kind of baptism of air?
MC: Oui. Arles vol, vaut y aller. Ça n'a pas duré. En haut Arles était petite!	MC: Yes. Arles flight, worth going. It did not last. Up there Arles was small!
VL: Quand vous regardait en haut vous trouvez qu'Arles était très petite.	VL: When you look from above you find that Arles was very small.
MC: Oui!	MC: Yes!

After the Wright brothers made their first flights in 1903, aeroplanes progressed quickly. In 1909 Louis Blériot crossed the English Channel bringing powered flight to France for the first time. In 1911 an aviator Roger Morin paid a visit to Frédéric Mistral in Maillane. While the poet presented the pilot with his famous poem *Mirèio*, the crowd burst into the plane and small children tried out his seat.

In 1912, a vast national campaign was launched to support the emerging French military aeronautics. Jeanne Calment was one of the subscribers, donating some money for the construction of the military aircraft "*Frédéric Mistral*" through *Escolo Mistralenco*.

Commercial flights in the US were inaugurated in 1914. Passenger flights from Paris to London began in 1919. From around 1930 light aircraft capable of carrying small numbers of passengers started to be produced in volume. For example, in France over three hundred *Potez 36s* were built from 1929 onwards.

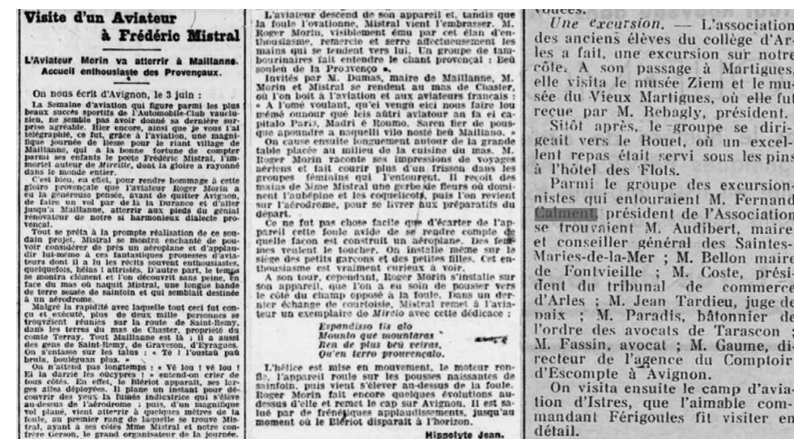


A Potez 36 at Istres around 1930

From her account of the experience, Mme Calment took a flyover of Arles in a light aircraft arranged by a commercial operation. She mentions a company and a name "*Arles Survole*". The enthusiasm of her description of seeing Arles so small below convinces us that the story is genuine. There was an aviation training centre at Istres near Marseilles about 40 km from Arles, originally built during WWI. By the 1930s such flights from there could be popular for rich passengers.

A newspaper report of 3rd July 1938 describes an outing of "*l'Association des anciens élèves du college d'Arles*," led by Fernand Calment. The delegation visited the aviation camp of Istres where they met the aviator commandant Georges Férigoules. He was the son of a painting teacher Claude Férigoule, well known to the Calment family.

It appears that this was the time when the Calments were interested in flying. In the period after Yvonne's marriage until her funeral, family and health problems would have inhibited them from such pursuits. Before Yvonne's marriage opportunities for the kind of flight she described would be at best very rare.



Meetings with aviators in 1911 and in 1938

Even if it were possible, a one-off private flight with an aviator in 1915 would not match her description of a commercial operation. In 1938 Jeanne would be 63 years old, so this does not correspond well with her stated age of 40 at the time of the flight.

For Yvonne the timing would be a perfect fit because she was 40 that year. It is unlikely that she accompanied Fernand to the excursion, but he could tell her about the possibility of the flight with Ferigoule.

Conclusion: The timing of Mme Calment's claim that she took her first flight at age 40 is implausible if she is believed to be Jeanne but fits well if she is Yvonne. We assign this evidence the likelihood ratio of 1.5 in favour of the switch.

RIDE IN A HELICOPTER

"What message does she want to leave?

'Wisdom, honesty, frankness. To act without fear. I don't know fear or jealousy. I am not afraid of anything. The worse it is, the calmer I am...'

This explains why, on the occasion of her 120th birthday, Jeanne Calment would like to take a helicopter ride. Like in '42, when she flew over the Camargue aboard the prototype, even the windows of which she described." – Nice Matin, 1995.

For her 118th birthday, Paris Match arranged to bring France's oldest living man Emile Laurent to Arles to meet Mme Calment. Since he had to come a long way from Strasbourg, they organised a helicopter for his journey.

Afterwards Mme Calment told her validators that she had already taken a ride in a helicopter. They later discovered that some early French helicopter test flights had taken place near Arles.

"Had she convinced the pilot to take her up?" they

asked [33] p141-142. See also [1] p119-p120.

Nice Matin reported that this was in 1942. *Gisborne Gerald* said she took the ride in 1939 [34] while the *Daily Mirror* went further and claimed that this happened just before the First (sic) World War:

"It was like being a bird flying up to the skies. It is still the most amazing feeling I've ever had." She also expressed a desire to go to the Moon [35].

During the WWII the French air force was not in the position of testing their helicopters. Germans were pioneering this field with the prototypes of their "secret weapon" *Focke-Achgelis Fa 223 Drache* breaking world records in speed in 1940.

The mass production was going to start in 1942 but the allies had bombed the factory delaying it by a year. It was with this helicopter that Skorzeny initially intended to fly Mussolini out after his liberation in September 1943.

In the end of that year one of these *Fa 223* crashed during a rescue mission in the Mont Blanc massif near a sanatorium on the Plateau d'Assy, the region where Yvonne was treated in 1928.

In 1945 one of the Dragons seized by allies was flown over the English Chanel by the captive German pilot because only Germans could fly it.



Seized German FA 223 Dragon on British airbase Beaulieu (1945), photo by Bob Bird

It is highly unlikely that Mme Calment would have flown in one of these unless she was on some special mission, but theoretically it is not impossible. She could certainly fly in a helicopter later, but it would have been a significant event that she would have been likely to mention before, for example in her 1988 interview with Paris Match [10, 11].

It seems more plausible that she simply gave a flippant response to an unwelcome suggestion that she might have liked to join Emile Laurent in the helicopter or that there was a misunderstanding related to the type of the aircraft she had flown. This story had some further development in media which was however insubstantial in comparison to her famous tale about meeting Van Gogh.

Conclusion: The helicopter story does not tell us much about the authenticity of Mme Calment, but it

does show how easily her comment can be taken too seriously by some authors. We assign this evidence the neutral likelihood ratio of 1.

CHILDHOOD AND YOUTH



Yvonne Calment

JEANNE CALMENT'S GODFATHER

Jeanne Calment's godmother was her maternal aunt Jeanne Gilles. Mme Calment remembered her as someone who spoilt her with cakes and sweets.

In an interview she was confused about how the name Gilles fitted in to the family. It was of course her mother's maiden name, but she thought it came from her father's side [2] p57, [3] p45 (not found on published tapes [7]).

Her knowledge of the immediate family tree was surprisingly shaky. Zak pointed this out as a matter of concern in his earlier paper [5].

In her defence, Mme Calment's supporters refer to a 1995 video where Doctor Lèbre asks if she remembers her grandfather. She immediately names him as Claude Gilles and recalls that he was a miller [29, 32]. They described this as "spontaneous", but the interview was clearly staged for reporters and in our opinion the question was probably pre-arranged or at least well known to her from other conversations.

Her confusion regarding the godfather is harder to explain. He was Pierre Gilles Paget, a more distant relative, also on Jeanne's maternal side. Before Jeanne's

birth he ran a confectionary shop in rue des Arènes for many years with his sister Jeanne Paget. He signed Jeanne Louise Calment's baptism as Louis Paget, which seems to have been a name he was commonly known by. When asked about the godfather during interviews with her validators, Mme Calment was reported to give his name as "Louis Pages". Unfortunately, the audio recording for the interviews where Mme Calment talks about her godparents is missing.

She said he was a relative who came to meet her father sometimes, and that he was a diplomat who lived in rue du Théâtre. This was the old name of a road that runs past the back of the Calment shop, since renamed as rue Jean Granaud, but it was nowhere near his actual address [2] p58, [3] p46. It has been claimed by those who support Calment's authenticity that she was confused because

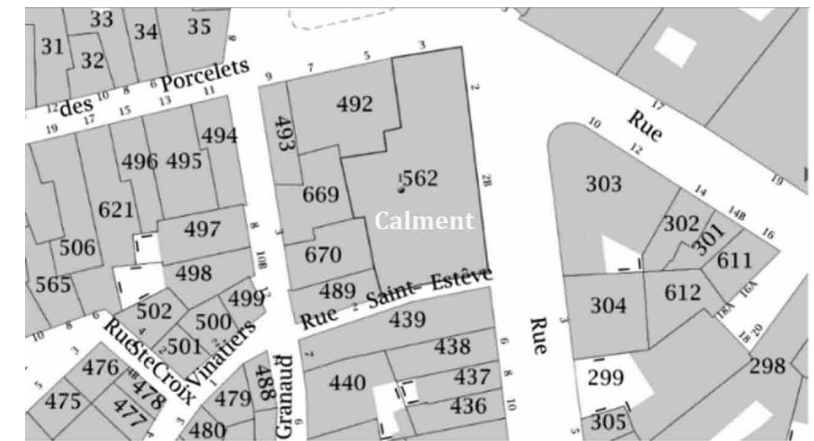
"A diplomat is a kind of cake," and

"She gave the address almost correctly, since she said 'rue du Théâtre' (Theater street) while he was living in 'rue des Arènes,' the 'arènes' being the Roman amphitheatre." [29]

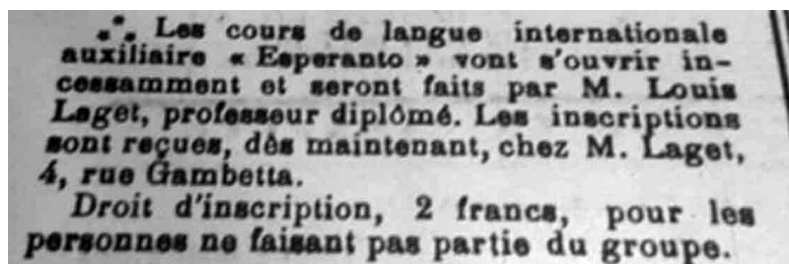
This defence seems quite a stretch to us. When talking about their family doctor, Mme Calment had no difficulty in correctly naming rue des Arènes where he lived.

We recently found what could be a much more plausible explanation for the confusion. When they talked about Louis Paget, she could easily have thought of a

neighbour nearby who was called Louis Laget. In the 1880s Laget's father had a drapery store neighbouring to the Calments', but it was demolished during the construction of rue Gambetta, so he moved to number 4 Gambetta.

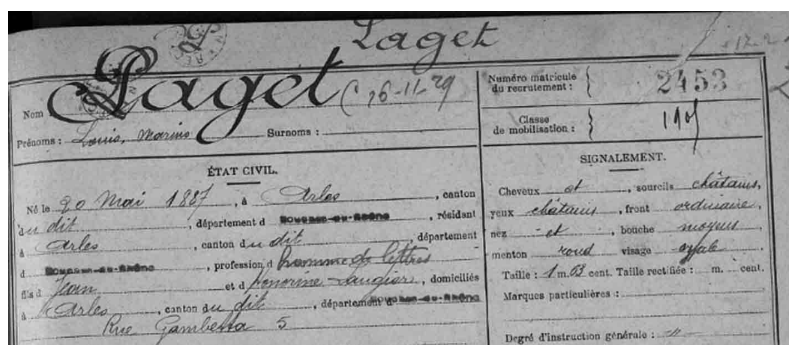


That is next to Maison Calment (plot 562), separated by the narrow rue St. Estève where the entrance door to the Calment's apartment could be found. The Laget's property (plot 439) extends to the rear of their shop and exits on the back street that was formerly known as rue du Théâtre, so that fits her recollection perfectly, but was Louis Laget a diplomat?



Esperanto courses at Gambetta 4 by M. Laget, *professeur diplômé*, 1913

Louis was in fact the founder and head of a group of Esperantists which also included Fernand Calment and Albert Billot (Joseph's brother). He went to Paris and obtained a diploma to teach the artificial language Esperanto. In his military record he was marked as an "Homme de lettres".



Military file of Louis Laget with his name corrected from "Paget"

Esperanto had been invented by an ophthalmologist Lazar Zamenhof in 1873 as a means of communication to be used between the warring nations of the time. As well as teaching in Arles, Laget travelled abroad

to promote this diplomatic language to help bring understanding and peace in Europe. Ultimately his efforts were in vain. Suspensions grew, and teaching Esperanto in France was eventually banned when it was perceived as a threat. The Alliance Française which promoted the national language turned out to be much more successful.

It is likely that he taught the group about Esperanto's original purpose for diplomacy and that Laget's endeavours would qualify him as a diplomat in the eyes of the Esperantist group if not more widely. We do not have the original audio recording to track how the conversation progressed. The dialogues in the book are badly edited and some of her speech is misunderstood, so it is possible that an accurate transcript would change our interpretation. She might have said that he was *diplômé* rather than a diplomat. Either way, this is correct for Louis Laget.

We are not sure if Mme Calment ever learnt any Esperanto herself. Some authors called her "Doyenne of esperantists," but she was never reported to speak any words of the language as far as we are aware. One thing for sure is that Jeanne Calment would have known the true identity of her godfather Louis Paget, but he died in 1897 the year before Yvonne Calment was born. It is easy to see how Yvonne would have known Louis Laget but might never have heard much about Louis Paget. She could have confused the two since childhood or just during the interviews.

Louis Laget was younger than Jeanne and only nine years older than Yvonne so it seems odd that she would confuse him for Jeanne's godfather. He was not

a relative as she described. However, if the transcripts in the validators' books are correct then she must have genuinely confused Louis Laget with Jeanne's godfather Louis Paget. This would only be possible for Yvonne who knew them less well.

Conclusion: Mme Calment's confusion over her godfather is very hard to account for if she was Jeanne Calment, but if she was Yvonne, it is very likely that she would have known of the Esperanto diplomat Louis Laget who lived next door during her childhood. We assign this evidence the likelihood ratio of 2 in favour of the switch.

WALKING TO SCHOOL WITH THE MAID FOUSSON



A young girl being walked to school in Arles, photo by Marcheteau

In 1876, the year after Jeanne Calment was born, there was no domestic help for her family recorded on the census.

Five years later the situation had not changed, but by

1886 when Jeanne was 11, they did have a live-in maid. She was Marguerite Minaud, a first cousin of Jeanne's mother. Minaud was born out of wedlock. In 19th century Arles this would have affected her position in society. She never married and might have found it very difficult to get a job.

Her mother Marie Minaud died in 1883 and left a will in favour of Jeanne's grandmother Rose Minaud. Marguerite remained with Jeanne's parents until they died and was clearly regarded as one of the family. In some later census returns she was listed as a cousin rather than a maid.

The validators in their genealogical research appear to have only noticed her in one such census entry. They never recognised her as a servant. She outlived Jeanne's parents and was listed on the death notice for Yvonne with close members of the family.

When Mme Calment was asked about servants at her parents' house, she said they had a housekeeper and a cook.

[7] (25 May 1994 01:00)	Translation
VL: Quand vous étiez chez vos parents, est-ce qu'il y avait des domestiques? MC: Ah oui, il y avait une femme de ménage. Oui, eu une cuisinière et femme de ménage.	VL: When you were at your parents' house, did they have servants? MC: Oh yes, there was a maid. Yes, had a cook and a maid.

When asked what her mother was doing at home, Mme Calment replied that she watched over the servants (07 September 1994 19:30). That could be correct for Yvonne's parents' home where there were two live-in servants shared by the two households led by Fernand and Maria. For Jeanne's parents her claims do not match what we find in the census where only Minaud is listed.

Despite being a prominent figure throughout Jeanne Calment's life, Marguerite Minaud was one of several people from her childhood that Mme Calment failed to mention in her testimony. This might not be suspect in itself were it not that according to the validators' books she did name "*Marthe Touchon*", another maid who she apparently remembered escorting her to and from school [2] p29, [3] p55.

Nobody with that exact name has been found, but names spoken by Mme Calment were often wrongly transcribed. On this basis Zak identified her as Marthe Fousson [5]. When the original tapes are replayed it is clear that this is indeed the name that she gave at her first recorded validation interview with Robine and Lèbre.

[7] (26 Jun 1992 19:00)	Translation
VL: Quand vous alliez à l'école primaire là. Vous étiez petite. MC: Oui VL: Vous y alliez toute seule ou vous étiez	VL: When you were going to elementary school there. You were a little girl. MC: Yes. VL: Did you go by

accompagné?	yourself or were you accompanied?
MC: Jamais seule.	MC: Never alone. My father would never leave me alone.
Mon père ne m'aurait jamais laissé seule.	VL: And who did you go with?
VL: Et qui ce que vous accompagniez?	MC: My father or the maid.
MC: Mon père ou la bonne.	VL: And the maid, what was her name?
VL: Et la bonne, elle s'appelait comment, celle-là?	MC: Marthe.
MC: Marthe.	VL: Marthe?
VL: Marthe?	MC: Yes, Marthe Fousson.
MC: Oui Marthe Fousson.	VL: C'était votre bonne à ce moment-là?
VL: C'était votre bonne à ce moment-là?	VL: Was she your maid at that time?
MC: Oui, et cuisinière.	MC: Yes, and cook.

Fousson was a servant for Jeanne Calment and her husband after they married. She appeared with them on the 1906 and 1911 census returns. She was born in 1885, making her ten years younger than Jeanne. There is no possibility that Fousson could have walked Jeanne to school as Mme Calment claimed, but she could easily have been there for Yvonne.

In 2019 Robine said that they once mentioned the name to her:

"You never told us about Marthe Fousson." In an instant she leapt from her chair 'Who gave you

that name?' It was spectacular because she rarely asked questions." [36]

Robine's early reaction to Zak's evidence in a media interview was that Zak was confused about the name (translated from [37]):

"On the one hand, there is a Marthe Fousson who was a maid at Mme Calment's, when the latter was a young bride. On the other hand, there is another Marthe with a name which resembles Fousson, Pernon I believe, and the Russian authors confuse these two people. They don't know that Marthe was a very common name at that time."

The name "Pernon" does not appear in any record and was never mentioned by Mme Calment. When Robine and Allard checked the audio tapes later on, they must have realised that Mme Calment did indeed clearly refer to Marthe Fousson and not any other Marthe.

When their refutation paper was published eight months later, the validators had an opportunity to correct their earlier error, but instead they simply repeated the phrase from their old report [38] citing this as evidence of her authenticity [39]:

"She mentioned Marthe Fousson, one of the first servants she had in her service, when she was newly married."

It is true that she mentioned Marthe Fousson and that Fousson was a servant when Jeanne was married, but the validators neglect to make it clear that she

mentioned Fousson only in the impossible context of being taken to school by her as a child. Mme Calment never said that Fousson was her maid after getting married. That only comes from the census record.

The validators are playing with words to try to turn a strong item of evidence in favour of the identity switch into something that sounds like evidence against it. Their “revalidation” was concluded with a call for retraction of Zak’s paper and a declaration of absence of conflict of interest [39].

Conclusion: No lapse of the memory could account for Jeanne Calment making the errors of saying that she was taken to school by Marthe Fousson, but it is easy to explain if Mme Calment was really Yvonne.

This is one of the cleanest pieces of evidence in favour of the identity switch that we find in her testimony. Even Mme Calment’s supporters concede that the name of the servant is “troubling” [29].

It is also surprising that she never mentioned Marguerite Minaud and that she said that she had two servants while living with her parents. Her leap from the chair after the validators mentioned the name of this maid is also telling. We assign this evidence the likelihood ratio of 10 in favour of the switch.

JEANNE’S CHILDHOOD HOME

Jeanne Calment was born at 5 rue du Roure. At the age of about ten she moved to 53 rue de la Roquette, 200 meters away. The new home was bigger and had the advantage of a garden. She lived there with her parents until marriage.

When talking of her childhood home, Mme Calment described either the Calment store (see chapter “Slipping into being Yvonne”) or a large house with a garden in La Roquette:

[7] (27 Nov 1992 16:40)	Translation
MC: une maison particulière, à la Roquette, une grande maison avec jardin.	MC: A private house, in La Roquette, a large house with a garden.

Paris Match quoted her as saying that she was born at 53 rue de la Roquette [10, 11]. She never gave her birth address or mentioned the move to her validators. Despite her descriptions matching the house at 53 rue de la Roquette, they assumed she had been raised only at 5 rue du Roure [2]. Confused by contradictory information, Cavalié thought that Jeanne lived at 53 rue

du Roure before marriage [9] p72.

Zak raised this as suspicious in his 2019 evidence paper [5]. The validators responded that it is not remarkable that a minor move such as this at the age of ten would not be mentioned [39].

Given that she talked about the house while describing her journey to school she began attending at the age of 7, we think that the omission is nonetheless significant.

Conclusion: Mme Calment knew of 53 rue de la Roquette where Jeanne lived from age 10, but never mentioned 5 rue du Roure where she had lived before that since birth. Yvonne would have strong memories of the later house but could be unfamiliar with the earlier one. We give this a likelihood ratio of 2 in favour of the switch.

THE ROUTE TO SCHOOL

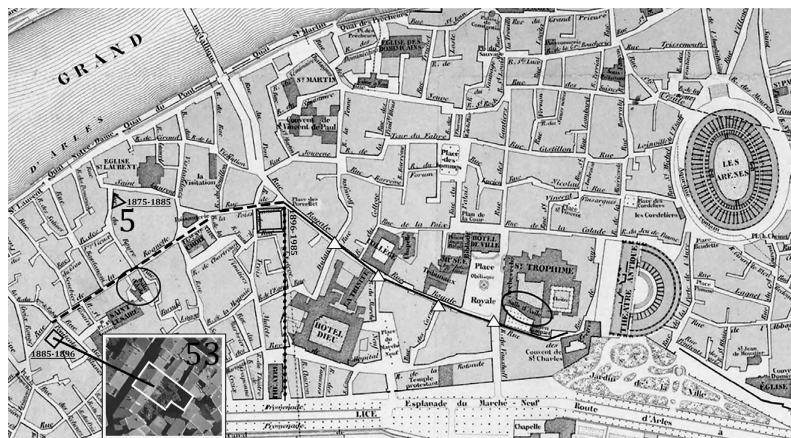
The route she took to school was discussed in the beginning of the same initial interview with Jean-Marie Robine in 1992 where she talked about Marthe Fousson:

[7] (26 Jun 1992 03:35)	Translation
Jean-Marie Robine (JMR): Quel est le nom de rue pour aller à l'école du Cloître, vous souvenez du l'école du Cloître?	Jean-Marie Robine (JMR): What is the street name to go to the Cloister School, do you remember the Cloister School?
MC: Les noms des rues?	MC: The street names?
JMR: Oui.	JMR: Yes.
MC: Ou allez?	MC: Where to go?
JMR: Oui pour l'école.	JMR: Yes, to the school.
MC: La République.	MC: La République.
JMR: Rue de la République.	JMR: Rue de la République.
MC: J'habitais la grande maison qui tenait quatre rues.	MC: I lived in the big house that took four streets.
	JMR: Four streets?

JMR: Quatre rues?

MC: Oui, au Magasin de nouveautés, c'était les quatre rues.

MC: Yes, to go to the Novelty store, it took four streets.



The map from 1871 with Jeanne's houses and route to school

Jeanne was born in a modest and rather small house near the river, at 5, rue du Roure (marked as a triangle on the map) and lived there until her family moved to a bigger house at Roquette 53 (square on the map, with aerial view shown on the right) when she was about ten years old.

To reach her uncle's store from there she had to go to the end of rue Roquette (passing by a *salle d'asile*, circled on the map) and make a small turn to rue de la Poissonnerie (dashed line). Then she had to turn right to rue de la République (rue Royale on the earlier map) at the intersection with rue Gambetta (built in 1883, dotted line on this 1871 plan of Arles by Augusto

Veran).

Then, after crossing four roads (white triangles on the map) and passing by another *salle d'asile* (circled) she would finally reach her school near St. Trophime.

It appears that when asked about her route to school Mme Calment at first gives an answer that would be correct for Yvonne who lived above the store, rather than Jeanne. It is just a walk up rue de la République. After a pause she adds that they lived in a big house, and that it took four roads to get to the Calment shop.

It is not clear how to interpret her words here, so we consider two options. It could mean that she lived in a big house, Maison Calment, and there were four roads to cross before reaching her school. This is true for Yvonne but makes no sense for Jeanne who didn't live there until her marriage.

Another possibility is that she was talking about Jeanne's childhood home, and it took four roads to get from there to the store. Mme Calment had never mentioned the house at rue du Roure to her validators and it was not big, so we assume that she meant Roquette 53. We know that later she referred to it as a big house with a garden.

In fact, it is hard to count more than three roads from there to the store for Jeanne when she was at school (rue de la Roquette, place Poissonnerie, rue de la Poissonnerie), but it is possible to do that for Yvonne because the streets were renamed: rue de la Roquette, place Paul Dormer, rue des Porcelets and place Antonelle (these two were one road named rue de la Poissonnerie before 1891).

After Jeanne married, her parents and Marguerite Minaud continued to live at Roquette 53 until the death of her father Nicolas in 1931. Jeanne sold the property the same year. Yvonne would have known this house very well and could count these four roads which appeared later. If Jeanne were speaking, she would describe her journey from her home to the school in the order she walked it, rather than extend her daughter's route.

Conclusion: The description of the walk to school is more fitting for Yvonne than Jeanne. We assign this evidence the likelihood ratio of 1.5 in favour of the switch.

INFANT SCHOOL

In the 19th and early 20th century, an infant school (preschool, nursery school, kindergarten) in France was called a Salle d'Asile.

Children could go there at age 5 or 6 before starting primary classes. Now they are replaced by *l'école maternelle* which can start as early as age of 2.

Sometimes when Dr. Lèbre asked Mme Calment about where she went to school, she would tease him with "*Asile dans la Ville*" (26 Jun 1992 10:45). She had a song that she sung

[7] (7 Sep 1994 10:30) (date unknown 0:10)	Translation
Un jour nous serons soldats Enfants de l'asile Apprenons à marquer le pas Ce n'est pas si facile Nous sommes fidèles au devoir Enfants de l'asile	One day we will be soldiers Children of the asylum Let's learn to mark the step It is not so easy We are faithful to the duty Children of the asylum

It could be a playground song or even a school anthem. Given the military theme it might have originated in one of the boys' schools and been taught to her by François, Fernand, or Joseph.

Mme Calment did confirm that she attended the infant school at age 5 or 6 (date unknown 01:30). She also said it was a courtyard and they called it recreation (still a common term in France). Her description fits the *Salle d'Asile* by the place de la République, between the Archbishop's Palace and rue du Cloître, and Dr. Lèbre believed it was there. There is still an infant school at this location today and as far as we know it has been there continuously.

The doctor tried to jog her memory with the name of Mme Robolly who we know taught at this infant school at rue du Cloître from 1883 to 1888 (15 and 16 Sep 1994 17:15). He called it "*L'asile modern*" but the *Indicateur Marseillais* listed it as *Asile Modèle*. If Jeanne attended, she would have been there before Robolly but she might still know the name. Mme Calment did not recognise it, but she tried to recall the name of the headmistress.

The answer she gives (at 18:10) is indistinct but it could match *Vandercruyssen* who was there from 1894 to 1914. This would make her the teacher for Yvonne. Jeanne could also recall the name of her child's teacher but should not be giving it for her own teacher from 20 years earlier.

We don't know which infant school Jeanne attended but she lived at rue du Roure, so the *Salle d'Asile* on the intersection with rue de la Roquette nearby

is the best guess because the infant school at place de la République was much further away. The difference in distance was much shorter for Yvonne, so she could attend the more prestigious school with Vandercruyssen.

Conclusion: Mme Calment's recollection of her infant school and the teacher is a better match for the time of Yvonne than Jeanne. We assign this evidence the likelihood ratio 1.2 in favour of the switch.

CHOLERA OUTBREAK



Duke des Chartres in cholera (and later tuberculosis) hospital, Pharo Palace, Marseille 1884

The name of Arles was originally Arelate (meaning “on the marsh” in Celtic). It proved to catch the essence.

A 1756 travel guide noted that Arles is almost surrounded by a morass making its air unhealthy [40]. In 1817 historian Amédée Pichot (1795-1877) had published a thesis “*The diseases caused by the marshes of Arles.*” In 1889 Vincent Van Gogh wrote to his brother Theo from there:

“Here the so-called good town of Arles is a funny place which for good reasons friend Gauguin calls the filthiest place in the south.” [25]

Arlesians suffered from various epidemics, from the Black Death to cholera and tuberculosis throughout the history of their town. The fight with these plagues was so important that Arles’ doctors often became mayors.

There were at least 7 deadly cholera epidemics in Arles in the nineteenth century. This disease is transmitted through ingestion of water or food contaminated with infected faeces. Many Arlesians threw their filth into the creek and their nightly excrements onto the public highway. Some open sewers were flowing into the Rhône, immediately below the city's water intake.

“It is not water, there is detritus of all kinds of an unknown colour,” – complained a newspaper in August 1884.

Other drains discharged into the drying up Craaponne Canal, which was a huge reservoir of rubbish [41]. The conditions were much worse for the poor than the rich who had enjoyed a higher life expectancy as a result.

A municipal ordinance from the 15 December 1865 declared that

“Any throwing of faecal matter in the street by day or night is absolutely forbidden. All houses must be provided with latrines or cesspools. If this is not possible, the purchase of tinettes is mandatory. An emptying service will ensure their removal.”

In 1916 the clients of the Folies Arlésiennes were asked to refrain from using the corners of the dance hall

as urinals [20]. The sewage from the venue capable of hosting 1500 people went into a vegetable garden next to it. In the early 1930s the household of Calment's employee Marius Maxence relied on a

"horse-drawn cart with a tank on top of it (the tinette) into which an attendant emptied the buckets that people handed him."

The major achievement of Dr Morizot, mayor from 1919 to 1932, was the creation of the city's comprehensive sewage system at the end of his term.

The fifth cholera pandemic arrived in Toulon on a boat from Saigon and killed almost 200 people in Arles in 1884. One of the victims was Doctor Fanton who died after treating numerous patients. The street that bears his name in today's Arles is on the site of the town's ancient Jewish quarter. The disease was particularly rife in the nearby Roquette district where Jeanne lived. Jeanne's school was closed, something she had to have noticed.

Le Petit Caporal newspaper from 26 July 1884 reported a devastating situation:

"As a result of a deplorable accident, the water supply to Arles has been disrupted and there is no water at present. The town is very worried. There have been 41 cholera deaths since Tuesday. The panic is appalling; barely five thousand remain from twenty-five thousand inhabitants. Entire streets are abandoned. Most of the migrants went to Tarascon or Beaucaire."

The bakers and butchers are closing their shops, famine is imminent. The sanitary measures taken were unsatisfactory; due to a shortage of people to remove bodies, some remained unburied for up to twenty hours and there was a shortage of coffins and disinfectant. Chemicals had to be requested urgently from Marseilles."

When Mme Calment was asked about events from her childhood, the validators said in their book that she failed to mention the cholera outbreak of 1884 [2] p35, [3] p61. Zak included this as one of his items of evidence in his paper [5].

However, in a documentary on TF1, Michel Allard plays a recording from tape in which she did recall it, saying that they immediately left for the country to avoid contagion [42]. The recording, as transcribed and translated below, can be found on the released audio files.

[7] (15 and 22 Sep 1994 9:45)	Translation
VL: Est-ce que vous rappelez aussi des débuts de la radio?	VL: Do you also remember the early days of radio?
MC: Oui. Vague... vague... C'est vague. Mon mari s'en rappelle mieux que moi.	MC: Yes. Vague... vague... It's vague. My husband remembers better than I do.
VL: Et est-ce que vous	VL: And do you

avez gardé le souvenir de l'épidémie de choléra?	remember the cholera epidemic?
MC: Ah malheureusement, ça oui.	MC: Oh unfortunately, yes.
VL: Vous avez eu des gens de votre famille qui ont été malades?	VL: Did you have people in your family who were sick?
MC: Non, je partie à la campagne tout de suite...	MC: No, I went to the country right away...
VL: Pourquoi, il y avait le choléra à Arles?	VL: Why, was there cholera in Arles?
MC: Oui, nous sommes allés à la campagne.	MC: Yes, we went to the countryside.
VL: Vous étiez allé pour vous isoler?	VL: You went to isolate?
MC: Oui, pour éviter le contact...	MC: Yes, to avoid contact...
VL: Dans votre famille, n'y a personne qui soit mort?	VL: In your family, did anyone die?
MC: Non.	MC: No.
VL: Votre père n'a pas eu le choléra?	VL: Didn't your father have cholera?
MC: Non... personne.	MC: No... no-one.

Lamy claimed that Jeanne fled to the family's farm in Saint-Martin-de-Crau [1] p183, but we know that Nicolas did not buy the property until 1888. Cavalié

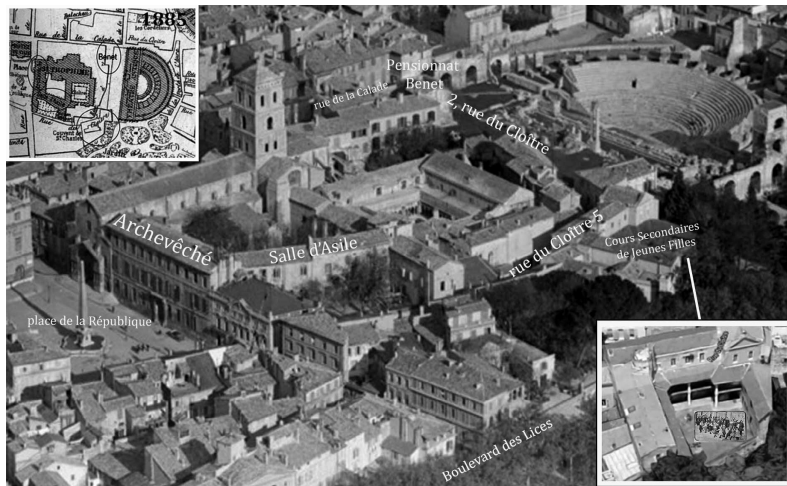
portrayed her staying with a friend Louise at the Mas de la Chapelette [9] p38. It is indeed likely that the children were evacuated to somewhere away from the affected areas.

This outbreak of cholera was the last in Arles, but the town continued to suffer from other epidemics, including typhus, which killed Jeanne's future father-in-law Jacques Calment in 1886, and smallpox, which restricted Van Gogh's movements in 1889.

Conclusion: Contrary to what the validators wrote in their book, Mme Calment was recorded mentioning the cholera outbreak. We don't know why they wrote otherwise. Was this dialogue a result of the earlier "reinjection" of the information?

The epidemic was a remarkable event of which Yvonne could easily be aware. However, we generously assign it the likelihood ratio of 0.5 in favour of no switch.

PENSIONNAT BENET AND COLLEGE



View of St Trophime, 1919 [43]; court at rue du Cloître 5 (Jeanne's and Yvonne's school)

Before 1882 most girls in Arles took at best a rudimentary religious education including the catechism. They could begin at a *salle d'asile* (infant school) from age 5 or 6 before progressing to one of the fee-paying schools run by the sisters of the Convent of St. Charles.

There the young girls could live-in if necessary until they took first communion on reaching the age of

reason when one can distinguish between the *Bread of the Holy Eucharist* and ordinary bread. This age usually varied between 10 and 14 years until it was lowered to 7 by the Pope Pius X's "*Quam singulari*" decree from August 8, 1910.

In 1882 primary education for boys and girls aged 6 to 13 became mandatory in France. Jeanne Calment was seven years old that year, so she began her education at a time of new opportunity, but also of disruption. Secular schools provided by the municipal council sprang up to meet the new requirements and demand, but the religious schools also continued to operate until 1903.

Mme Calment informed her validators that she had attended school from age 7 to 16 [2] p27, [3] p53, [7] (26 Jun 1992 06:40).

Detailed information about which schools were open each year from 1882 to 1914 can be found in the old trade directory "*Indicateur Marseillais*" available on Gallica [43]. Sometimes the directory can be out-of-date, but it was probably mostly accurate for the school listings.

head teacher	address	type	Jeanne												Yvonne																			
			1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Reverre	a la Roquette	maternelles																																
Vachier	a la Roquette	maternelles																																
Benet	a la Roquette	maternelles																																
Sœurs St Charles	Rue de la Roquette	congrégationnistes																																
Sœurs St Charles	Rue du Quatre Septembre	pensionnats																																
Sœurs St Charles	Rue St Julien	libre																																
Sœurs St Charles	Rue de la Sous-Prefecture	pensionnats																																
Fabre	Rue de la Sous-Prefecture	libre																																
Bonnelli	Rue de la Roquette	laïques																																
Fournal	Rue de la Roquette	laïques																																
Auron	Rue de la Roquette	laïques																																
Auron	Rue de la Roquette	collège																																
Gaudhier, Anais	Rue de la Roquette	laïques																																
Gaudhier, Anais	Rue St Laurent	laïques																																
Bonnet ne Serre	Rue St Laurent	laïques																																
Gaudhier	Rue Laurent Bonnemant	laïques																																
Archimbaud	Rue Laurent Bonnemant	laïques																																
Tardy	Asile Modèle	maternelles																																
Robilly	Asile Modèle	maternelles																																
Robilly	Rue du Cloître	maternelles																																
Chapuis	Rue du Cloître	maternelles																																
Vandercruyssen	Rue du Cloître	maternelles																																
Sœurs St Charles	2/5 Rue du Cloître	pensionnats																																
Sœurs St Charles	Rue des Cordeliers	pensionnats																																
Sœurs St Charles	Place des Cordeliers	pensionnats																																
Sauhet	Rue du Cloître	pensionnats																																
Benet	Rue de la Calade	pensionnats																																
Meyffren	Rue de la Calade	pensionnats																																
Benet ne Coste	2 Rue du Cloître	pensionnats																																
Blanc	5 Rue du Cloître	laïques																																
Blanc	11 Rue du Cloître	laïques																																
Raymond	11 Rue du Cloître	laïques																																
Camoin	11 Rue du Cloître	laïques																																
Camoin	Rue de la Calade	laïques																																
Atrand	Rue de la Calade	laïques																																
Atrand	Archevêché, pl de la République	laïques																																
Granier	Archevêché, pl de la République	laïques																																
	Rue St Paul	congrégationnistes																																
Guieu	Rue St Paul	laïques																																
Guieu	Rue St Paul	collège																																
de Saint-Leger	Rue St Paul	secondaire																																
Guieu	Rue St Paul	secondaire																																
Richard ne Guieu	2/5 Rue du Cloître	secondaire																																
Lathouez	2/5 Rue du Cloître	secondaire																																
Madouille	2/5/11 Rue du Cloître	secondaire																																
Nicolas	2/5/11 Rue du Cloître	secondaire																																

Girls schools in Arles during the time of Jeanne and Yvonne

Seven-year-old Jeanne lived in rue du Roure near rue de la Roquette which was already the location for one of the religious schools since before 1882. A new secular school was also started there that year, so the Calments had the choice of religious or non-religious education on their doorstep. If for some reason those schools did not suit them, there were alternatives not too far away.

The area around the church of St. Trophime had long been a centre of religious education. For Jeanne it would be a 700m walk. The family might have decided it was worth the extra effort and money to send Jeanne to a good Catholic school there.

We have not yet retrieved any reliable information to confirm where she studied in her early years, but Mme Calment said that

She went to the Benet school near St. Trophime [7] (26 Jun 1992 10:35).

It was a religious fee-paying school, like those run by the sisters of St. Charles. They had a uniform with a hat and a dress (7 Sep 1994 12:35).

It was where she did her First Communion (13 Feb 1993 14:35) which means she was there until around age 10 to 14 (the record of her Communion has not yet been found).

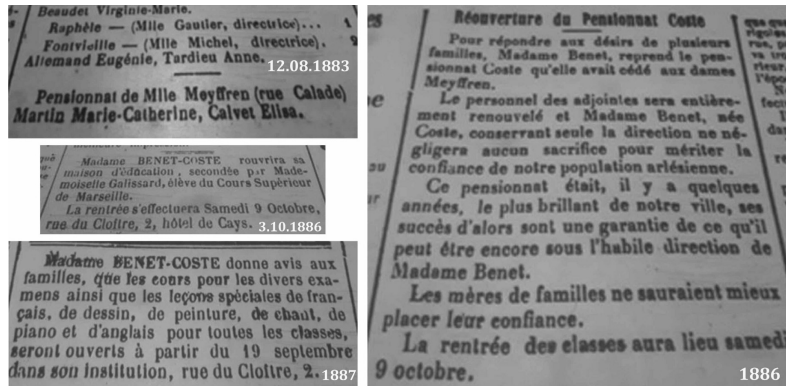
She boarded there not from the beginning but only for the last week before the Communion (26 Jun 1992 11:30).

Mme Benet was born Marguerite Bathilde Coste in 1833. She opened a private school at rue de la Calade which was known as Pensionnat Coste even after her marriage to Marie Jean Pierre Barthelemy Claude Benet, a 50-year-old twice widower, in 1880.

In 1883 a scandal broke out when the mayor Jacques Martin found out that Mme Benet took her students including his daughters to the royalist gatherings organized by abbé Bourges. Mme Benet was ousted, and the classes were taken over by Mme Meyffren (not mentioned by Mme Calment).

Education was further disrupted by the cholera outbreak but the mayor changed and in 1886 Mme Benet restarted her religious boarding school in the old Hôtel de Cays at the intersection of rue de la Calade with

rue du Cloître.



In 1886 Mme Benet took back her Pensionnat from Mme Meyffren

In 1886 it was announced that

"In Response to the wishes of several families, Madame Benet took over the Coste Boarding School which she had given to the Meyffren ladies. The staff of the assistants will be completely renewed and Madame Benet, née Coste, retaining the direction alone, will make any sacrifice to earn the trust of the people of Arles.

This boarding school was, a few years ago, the most brilliant in our town, and its success at the time is a guarantee of what it can still be under the skilful direction of Madame Benet. The mothers could not be more confident. The first day of school will be Saturday, October 9."

It lasted three years until 1889 when Mme Benet moved away to Port-Saint-Louis. Jeanne could have attended

this school up until her first communion around that time. The classes in drawing, painting, and piano fit with the talents that she developed and pursued later.

Mme Calment's validators and supporters cite her testimony about the Benet school as exceptional evidence that she was Jeanne [29, 32]. The school was closed by 1890 and Mme Coste died in February 1898 (the death act was witnessed by Jeanne's cousin Antoine Calment) less than a month after the birth of Yvonne, so how would she know of her and her school?

We accept that at a first glance this would be a memory more likely to be recalled by Jeanne, even if she never mentioned Mme Meyffren and the original name *Pensionnat Coste*. It is not extraordinary for a daughter to know something about her mother's school, but one can expect such memories to be less precise.

The recently published interviews with Mme Calment show that her knowledge of the Benet school was quite fuzzy.

[7] (26 Jun 1992 25:09)	Translation
VL: La pension, la pension Benet vous dites qu'il quitté sur la place de la République. MC: Oui. VL: La pension religieuse, où est ce qu'elle était exactement? Quand	VL: The pension, the Benet pension you say that it was opening onto place de la République. MC: Yes. VL: The religious boarding school, where was it exactly? When you were little,

vous étiez petite, vous alliez à cette pension religieuse.

MC: Il était entré... sur la cour de l'Archevêché, eu grand escalier... les classes.

VL: Après, il y a la bibliothèque municipale, c'était à cet endroit-là?

MC: Oui, je rappelle.

VL: Vous rappelez?

MC: Oui.

VL: La bibliothèque municipale est à l'ancien palais de l'archevêché.

MC: Oui.

VL: Et c'était là votre pension?

MC: Oui. A la bibliothèque

municipale j'ai fait les livres, j'ai loué des livres.

VL: Oui, et ça, c'est plus tard, la bibliothèque.

MC: Oui.

VL: Autrement dit cette pension elle était un peu annexée à Saint Trophime.

you used to go to this religious pension.

MC: It was entered... at the archbishop's court, the grand staircase... the classes.

VL: Afterwards, there is the municipal library, it was in that place?

MC: Yes, I remember.

VL: Do you remember?

MC: Yes.

VL: The public library is in the old Archbishop's palace.

MC: Yes.

VL: And your pension was there?

MC: Yes. In the municipal library I worked with the books, I rented books.

VL: Yes, and that's later, the library.

MC: Yes.

VL: In other words, this boarding school was a bit annexed to Saint-Trophime.

MC: Yes, yes, yes.

VL: There was an ensemble of Saint-

MC: Oui, oui, oui.

VL: Il y avait l'ensemble Saint Trophime et l'Archevêché et la pension était là?

MC: Oui. C'est là que j'ai fait ma communion.

VL: C'est là ou vous avez fait votre communion.

Et vous avez bouclé une semaine-là.

MC: Comment?

VL: C'est là où on vous avait bouclé une semaine.

MC: Oui.

VL: Complètement?

MC: Complètement.

La pensionnaire. A l'époque le clergé était difficile, pas comme aujourd'hui. Ha, Quelle différence! Le clergé était difficile.

Trophime and the Archbishop, and the boarding school was there?

MC: Yes. That's where I made my communion.

VL: That's where you made your communion. And you spent a week there.

MC: How?

VL: That's where you spent a week.

MC: Yes.

VL: Completely?

MC: Completely. The boarder. In those days the clergy was difficult, not like today. Ha, what a difference! The clergy was difficult.

Initially she said that

Her school was in rue du Cloître [7] (26 Jun 1992 00:10).

There she did not specify which school it was but this would fit Pensionnat Benet located at place Cays at the

intersection of rue du Cloître with rue de la Calade. However, ten minutes later, after describing her school as *Pensionnat Benet*, she said that

It was near place de La République (26 Jun 1992 11:00).

In the end of the same interview she confirms that it was opening onto place de la République, but Dr. Lèbre asks for a more precise location. Mme Calment says that

It was at the old Palace of the Archbishop (Archevêché) with a court and the grand staircase. She boarded there for a week before her First Communion and rented books in the municipal library which was also in the Palace (26 Jun 1992 25:09).



View of the archbishop's palace from the town hall; XVII century staircase inside [44]

The Palace was constructed in the Middle Ages as an extension of Saint-Trophime. The west façade, opening onto place de la République was built by Archbishop

du Lau in 1786 when Arles was the center of a very important archdiocese. Jeanne probably attended du Lau's beatification there in 1926.

After the work on the façade was completed, the archbishopric was abolished and the Palace housed various secular institutions, including a library [44]. From 1909 to 1914 it was the location of the primary school that Yvonne probably attended.

This spot was 100m away from the Pensionnat Benet at the intersection of rue de la Calade and rue du Cloître – an unexpected mistake from someone who was studying there for several years. We believe that this time Mme Calment was talking about the building where she herself took her first communion, because she mistakenly assumed that Jeanne did it in the same place as Yvonne.

Her knowledge of the secondary school was equally shaky:

[7] (7 Sep 1994 15:22)	Translation
VL: Vous êtes resté jusqu'à quand à la pension Benet?	VL: How long did you stay at the Benet pension?
MC: À ma communion.	MC: To my communion.
VL: Et après, vous êtes allé où?	VL: And then where did you go?
MC: Ah au collège.	MC: Ah to the college.
VL: Il s'appelait comment ce collège?	VL: What was the name of the college?
MC: Ah. Ne rappelle plus, juste collège,	MC: Ah... Don't

collège.

VL: Où est ce qu'il se trouvait ce collège?

MC: ...Musée... On a la fait musée...

VL: C'est dans la rue de la République? Le collège, il était sur les Lices ou dans la rue République?

MC: Oui, non, oui, je ne rappelle plus.

VL: On y a fait quel musée? Quel musée a-t-on fait à cette place?

MC: Je ne sais pas...

VL: Est-ce que c'est là où on a fait le Musée Arlaten?

MC: Oui, je crois, je ne suis pas sûre mais, je crois.... Oui, oui, c'est ça.

VL: Vous étiez pensionnaire à ce collège?

MC: Ah. Non... non. Mon père veut me chercher. Oh, j'allée pas seul. Mon père était sévère, il ne me pas laisse.

remember, just college, college.

VL: Where was this college?

MC: ...Museum... They made it a museum...

VL: It's in rue de la République? The school, was it on the Lices or in rue République?

MC: Yes, no, yes, I can't remember.

VL: Which Museum was established there?

MC: I don't know.

VL: Is that where the Museon Arlaten was built?

MC: Yes, I think so, I'm not sure but, I think so Yes, yes, that's it.

VL: You were a boarder at this school?

MC: Ah... no... no. My father would look for me. Oh, I didn't go alone. My father was severe, he wouldn't let me.

Mme Calment said that after her communion she went to the college. She couldn't recall the name and said it was just "College", but the correct name of the college was actually the same for Jeanne and Yvonne: "Cours Secondaires de Jeunes Filles".

In the first interview she said that

The entrance to the college was on place de la République, and a terrace opened onto the Lices (26 Jun 1992 12:30),

but in 1994 she hesitated and suggested that

Her college was where the museum is. (7 Sep 1994 15:40).

Dr. Lèbre asked if she meant *the Museon Arlaten on rue du la République* and she confirmed. This museum opened in 1899 when Yvonne was one year old. It is located halfway between Maison Calment and place de la République and had indeed been a college before, but for boys only. It was Fernand and not Jeanne who studied there.

This was not her first confusion relating to *Museon Arlaten*. In 1988, Mme Calment told Paris Match that she had celebrated its inauguration in a dance hall which (as we shall show later in this volume) was created several years afterwards.

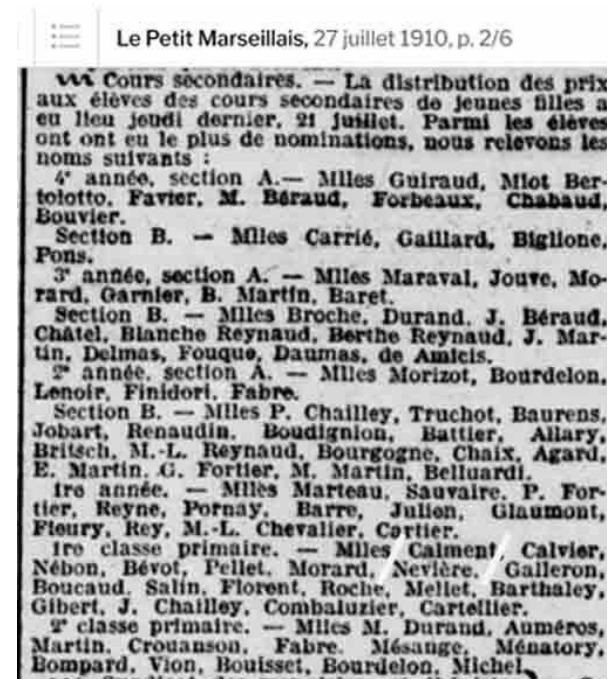
The Secondary school for girls was opened near the

Arena at rue St. Paul (the present rue Augustin Tardieu) on 4th October 1886. In 1889, as more children came up through the new system, the building was already too small. The council decided that year to move it to 5 rue du Cloître at the former convent of St. Charles which by then was owned by the town. To do so they needed to displace the primary school that was currently using it.

According to the Indicateur Marseillais the school remained at rue St. Paul until 1892, but it is likely that at least some of the classes moved to rue du Cloître as it was announced in a 1889 newspaper article.

In 1891 a local paper named Calment as being in at least her second year at the Cours Secondaires de Jeunes Filles and doing well. She was 16 that year so it was probably her last. At that time the head mistress Mlle Guieu was living there at 5 rue du Cloître according to the census. We do not know whether Jeanne started at rue St. Paul or already at rue du Cloître but Mme Calment had never mentioned the location at rue St. Paul.

Her initial description of the terrace that opened onto the Lices fits the college which Jeanne attended, but Yvonne is known to have gone there herself. She got her certificate of primary classes in June 1910, at the same time as her future brother-in-law Jean Paul Billot. In July she received a prize, together with her classmate Nevière, a granddaughter of Calment's midwife.



Yvonne got a prize in 1910





Patricia Couturier has recently found seven-year-old Yvonne posing at two pictures featuring girls from both primary and secondary classes of the school. The photos were taken at the old site of the Convent of St. Charles in rue du Cloître 5. Yvonne would have known this place just as well as her mother. However, in a later interview Mme Calment gave the wrong location for Jeanne's school, confusing it with Fernand's college on rue de la République.

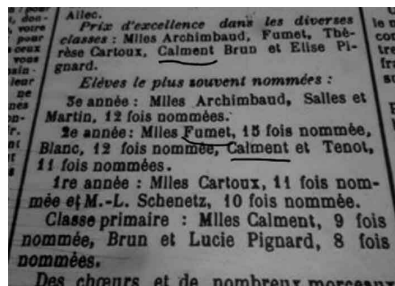
Conclusion: Mme Calment was probably right that Jeanne went to Mme Benet's pensionnat (which was known as *Pensionnat Coste* before 1883 and after 1886 and *Pensionnat Meyffren* from 1883 to 1886) and then to the college (which was actually called *Cours Secondaires de Jeunes Filles*). The original claim that her school was at rue du Cloître is correct, but the locations she later

gave of the Archbishop's Palace for Pensionnat Benet and the Museon Arlaten site for her college are wrong.

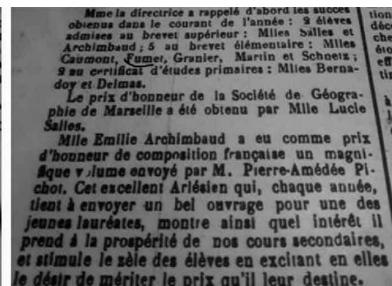
It is easier to see how Yvonne could have partly known the names of Jeanne's schools than to understand how Jeanne could be so uncertain about their locations. Victor Lèbre said that the details for the Benet School were verified [18], yet he apparently did not even know where and when it existed. We assign this evidence the likelihood ratio of 5 in favour of the switch.

PASSING THE BREVET

Mme Calment said that she passed her classical brevet at the end of her schooling at age 16 [2] p28, [3] p53; [7] (26 Jun 1992 06:50 14:15, 7 Sep 1994 18:50).



Nominations in Jeanne's class, 1891



Fumet gets brevet, 1892

In the newspaper report of 1891 when she was 16, Jeanne Calment was in the second class and clearly doing well. Another Calment, Marie, was a bright student at the primary school. Jeanne was one of the top named in her class. If it were correct that she passed the brevet after the third class, she would be 17 at that time and the achievement should also be listed in local papers.

Our searches could not find it, even though we did find mentions of some of her classmates (e.g., Fumet)

passing the grade in 1892. Jeanne was studying at a pivotal time between the old and the new school systems. The brevet was a secondary school exam and the girls who did not have the primary school certificate might not be able to pass it. Her earlier studies could be troubled by the perturbations in Benet's school and the cholera outbreak.

Jeanne could start her primary school at rue du Cloître and then join the secondary classes when they moved there, without having this certificate. It is also possible that she simply left school at 16 before having the chance to take the exam.

By the time Yvonne attended school, the system had settled down. Primary and Secondary classes had more stable locations. She successfully obtained the primary certificate in 1910. We don't know if she passed the brevet, but she had a good opportunity to do so.

Conclusion: Mme Calment's claim that she passed the brevet at age 16 does not seem correct for Jeanne, but it might be true for Yvonne. We assign this evidence the likelihood ratio of 1.2 in favour of the switch.

COMMUNIONS FOR JEANNE AND YVONNE



Yvonne Calment at her communion

According to the testimony of Mme Calment, Jeanne's communion was at the Pensionnat Benet where she went to school [2] p27, [3] p53 (26 Jun 1992 11:25). She lived there in preparation for a week before the ceremony. This is plausible because the school ran until 1889 when Jeanne was 14.

A photo of Yvonne's communion was preserved by the Fassin family. She wears a traditional wreath of roses like the one put on St. Thérèse de Lisieux (1873-1897) after her death from tuberculosis. Mme Calment was asked about Yvonne's communion in 1993:

[7] (13 Feb 1993 15:00) edited	Translation
VL: Est-ce que vous vous rappelez sa communion? Sa première communion? MC: Ah, encore plus. Du moment que je me suis rappelé le baptême, encore plus la première communion, ha! ... Elle était dans une pension religieuse. VL: Où ça? MC: La pension de Mme Benêt, qui était équivalent de...je ne	VL: Do you remember her communion? Her first communion? MC: Ah, more so. As long as I remembered the baptism, even more the first communion, ha! ... It was in the religious pensionnat. VL: Where? MC: Mme Benet's pensionnat, which was equivalent to... I don't remember, I have a bit

me rappelle plus, j'ai un peu d'amnésie en ce moment.

VL: Pas du tout. Vous avez une mémoire qui fonctionne très bien... Vous avez fait la fête en famille?

MC: Après oui, après la cérémonie...

VL: Le repas s'est passé où?

MC: Dans la maison, chez soi.

VL: Ça s'est passé au magasin ou à la rue du Roure?

MC: Chez soi dans la maison, dans les appartements personnels.

VL: Vous vous rappelez comment Yvonne était habillée?

MC: Bah, en communiant!

VL: Décrivez-moi un peu sa robe.

MC: La robe en mousseline, blanche, classique. Une couronne de fleurs.

VL: C'était quoi comme

of amnesia now.

VL: Not at all. Your memory works very well... Was there a family party?

MC: Afterwards yes, after the ceremony...

VL: Where did you have the meal?

MC: At our home.

VL: It was in the store or at rue du Roure?

MC: At home, at personal apartments.

VL: Do you remember how Yvonne was dressed?

MC: Well, as a communion girl!

VL: Tell me a little about her dress.

MC: The chiffon dress, white, classic. A crown of flowers.

VL: What kind of flower was it?

MC: Oh, now you're asking too much. When I was married, I had a crown, a white lilac crown. But that's

fleur?

MC: Oh! Là, vous m'en demandez un peu trop. Quand je suis mariée, j'avais une couronne, une couronne de lilas blanc. Mais ça, c'est quand je suis marié.

VL: Première messe était à quelle heure?

MC: A 7 heures.

VL: Et ensuite, qu'est-ce que vous faisiez?

MC: Ah, bah, je m'occupais de choses. A maison de mes parents. A maison avec mes parents.

VL: Et après, vous alliez à la grand-messe?

MC: Naturellement.

VL: Est-ce qu'il y avait les vêpres aussi?

MC: C'est obligatoirement. C'est passe à St. Trophime.

VL: Vous vous rappelez bien? Vous étiez habillé comment ce jour-là?

MC: Une robe mousseline, blanche.

VL: Mais VOUS, qu'est-ce que vous aviez-vous

when I was married.

VL: What time was the first mass?

MC: At 7 o'clock.

VL: And then what did you do?

MC: Ah, well, I took care of things. At my parents' house. At home with my parents.

VL: And then you went to the high mass?

MC: Naturally.

VL: Did you go to vespers too?

MC: That's a must. It was at St. Trophime.

VL: Do you remember well? What were you wearing that day?

MC: A muslin dress, white.

VL: But what were YOU wearing?

MC: Well, I had a pink dress in the fashion of the time, a pretty dress. A fashionable dress, of course!

VL: Did you wear hats?

comme tenue?

MC: Ben, j'avais une robe rose dans la mode de l'époque, une jolie robe. Une robe à la mode, naturellement!

VL: Vous portiez des chapeaux?

MC: Ah, oui! Ah... On portait des chapeaux...

Des chapeaux on porte encore longtemps.

Après, on a aboli.

MC: Ah, yes! Ah... We wore hats. Hats were still worn for a long time. Afterwards, we abolished.

Mme Calment begins by saying that Yvonne's communion was also at Mme Benet's school. This does not make sense because it closed immediately after Jeanne presumably did her first communion there. Dr. Lèbre in Readers Digest claimed they verified that in 1908 Yvonne had passed her communion in Benet pension [18]. Like many of the claims made by the Calment verification team, this can't be true.

The Catholic Church had lost a lot of influence in education in Arles since the radical mayor Nicolas (1900-1908) removed the town crosses overnight and renamed the streets with secular names. Yvonne received a secular education and probably prepared for her communion for a week in a religious pension run by the church. Mme Calment confused this with Benet's pension, possibly because Jeanne had spoken to Yvonne of her own communion there.

François Robin-Champigneul who supports Jeanne Calment's authenticity agrees that Mme Calment was mistaken about the location of Yvonne's communion but argues that Jeanne was more likely to be confused in this way than Yvonne [29]. We disagree because we think that someone who was an adult at the time is less likely to get it wrong than someone who was a child.

In her testimony Mme Calment goes on to describe Yvonne's communion dress, the church mass, and the meal at home (13 Feb 1993 19:40). She gets confused in the process and starts to speak as if she were Yvonne. She helped her parents with the preparation, and when asked about what she was wearing, she again describes the dress worn by Yvonne until she gets corrected.

An elderly person who is confused does not suddenly imagine herself to be her daughter. This dialogue didn't make it into the validators' books.

Conclusion: It was very evident during her testimony that Mme Calment slipped into talking as Yvonne about her own communion. It was an unusually long section in the published interviews where Mme Calment was speaking as herself rather than the mother she claimed to be. This is clear evidence and we assign it a likelihood ratio of 5 in favour of the switch.

SCHOOL TEACHER DU BOURGUET

At the start of 2019, Jean-Marie Robine (JMR) was busy defending his validation of the age of the oldest human.

Robine in BFMTV interview, 2019 [45]	
JMR: On a pu récupérer les noms des professeurs qui avaient enseigné dans ses écoles les années où Jeanne Calment était là. On connaissait le nom des profs de physique de géographie de mathématiques et autres. Elle nous a donné les bons noms. Est-ce que vous connaissez une fille qui connaît le nom des professeurs qu'avait sa mère à l'école?	JMR: We were able to retrieve the names of the teachers who had taught in her schools during the years that Jeanne Calment was there. We knew the names of the physics, geography, mathematics, and other teachers. She gave us the right names. Do you know a daughter who knows the names of the teachers her mother had at school?

When Robine told journalists about her exhaustive knowledge of Jeanne's childhood, he probably forgot about the first interview he conducted with Madame Calment 27 years earlier. Fortunately, it was published by INSERM in 2022:

[7] (26 June 1992, 0:30) – Mme Calment's first interview with Robine	Translation
JMR: Est-ce que vous souvenez du nom de vos professeurs? MC: non, non, non, non, non, non, malheureusement. J'oublies facilement.	JMR: Do you remember the names of your teachers? MC: No, no, no, no, no, no, unfortunately. I forget easily.

Later, the validators prompted her to recall names that she had been apparently spoken of before. According to their book she then mentioned *M. Guy Bourget*, *M. Michel*, *M. Georges Dubourget* (physics), *Mlle Augustine* (sewing) [2] p28, [3] p54. From the audio recordings we know that *Guy Bourget* and *Dubourget* is the same teacher [7] (26 Jun 1992 14:00). Sometimes she also called him *Bourguet* or *Le Bourguet* (7 Sept 1994 17-30).

Dissement.

**M. Du Bourguet, professeur suppléant
au lycée de Marseille, est nommé profes-
seur de mathématiques au collège d'Arles.**

Dubourguet starts teaching in Arles in October 1885

She was right about M. Dubourguet although the first name Georges is not correct. His full name was Horace Saint Prix Lucien d'Audibert Caille du Bourguet (1853–1907). He taught mathematics, physics, and chemistry in Arles from 1885 to 1894 and then left the town to teach in “*École des Beaux-Arts de Marseille*”.

Du Bourguet was the only name of her schoolteachers that was verified by the validators. The names Michel and Augustine do not appear in any list of teachers that we could find yet the validators and other supporters praised these memories as an amazing demonstration of her clear mind [29, 32].

Mme Calment also knew Mlle Gachon who was a music teacher at the schools and could have taught Jeanne and Yvonne piano at home as a private tutor. S

COURS SECONDAIRES DE JEUNES FILLES

M. le Recteur vient de désigner les professeurs du Collège qui seront chargés de l'enseignement secondaire des jeunes filles, cours qui doivent s'ouvrir le 4 octobre prochain dans le local de la rue Saint Paul.

Nous applaudissons à ce choix bien fait pour assurer le succès de ces cours qui seront si utiles aux demoiselles désireuses de recevoir une instruction solide et semblable à celle qui est donnée dans les collèges de jeunes filles.

Voici le nom de tous les professeurs chargés de ces cours :

Mathématiques et Histoire Naturelle : M. Thouris, principal du collège;
Physique et Chimie : M. Du Bourguet, professeur au collège;
Français et Littérature, 1re Division : M. Alet, professeur au collège;
Français et Littérature, 2e Division : M. Mailaud, professeur au collège;
Histoire et Géographie : M. Magnas, professeur au collège;
Dessin : M. Dieudonné, professeur;
Gymnastique : M. Sabatier, Directeur de l'école du Haras.

Musique vocale : Mlle Gachon, professeur.
Mme de Saint-Léger, Directrice, est en outre chargée des cours de Morale et Economie domestique, Français et Littérature, Arithmétique, Ecriture, Langue Anglaise et Couture.

Secondary course teachers that Jeanne would have known

We know 7 other teachers from the secondary courses including the director and the painting teacher who were listed in the papers when the school opened in 1886, and there are about twelve teachers listed in the *Indicateur Marseillais* for the years when Jeanne would be there, none of whom she recalled.

Mme Calment remembered du Bourguet in particular because she said his experiments went comically wrong. Jeanne could have told amusing stories about him so that her daughter Yvonne would remember the name. In one interview they discuss du Bourguet's alleged affaire with a supervisor, "a handsome boy" (7 Sept 1994 17-30).

The boy's college shared teachers with the girl's school and from newspapers we know that du Bourguet taught Fernand, so the stories about the supervisor and failed experiments could also come from him.

Since 1897 and until at least 1939, Fernand was one of the leaders of the "*Association Amicale des Anciens Elèves du Collège d'Arles*" (Friends and Former Pupils of the Arles College), so the Calments would easily be familiar with its history including anecdotes about prominent teachers.

Jean-Marie Robine used Calment's recollection of teacher names to support his validation in media interviews. Contrary to his claims, she named only du Bourguet as a mathematics or physics teacher and Gachon as a music teacher. It is easy to understand how Yvonne would have known those few names that were partly correct.

She also gave some wrong names and never mentioned the geography teacher (M. Magnas), mathematics teacher (M. Thooris), or even the painting teacher M. Dieudonné. Gouillaume Marie Dieudonné died at the age of 70 in 1897, less than a year after Jeanne's marriage. His obituary in *l'Homme de bronze* newspaper indicates that Jeanne should have known him very well:

"The funeral of Mr. Dieudonné, the director of our drawing school, officer of the academy and curator of the Museums took place this week. Mr. Dieudonné, whom all the schoolchildren, young and old, knew, was a modest but talented man; a sculptor and modeler, he left some works of real merit. We send our sincere condolences to the family."

Conclusion: Mme Calment recalls Mr. du Bourguet, a teacher who was there in the time of Jeanne Calment. Yvonne would have to know him from stories told by her parents. The only other teacher she names correctly is Mlle Gachon who would also have been known to Yvonne. These memories cannot be claimed as strong evidence in favour of Jeanne Calment's authenticity.

The lack of recollections about other teachers and the director is surprising given the prodigious memory of Madame Calment. We will take this into account when evaluating the selectivity of her reminiscences. Here we will be generous and assign the "Dubourguet" evidence the likelihood ratio of 0.5, in favour of no switch.

PIANO LESSONS WITH GACHON



Jeanne Calment playing piano c. 1920

Mme Calment started piano lessons at age seven. She said that was more recent than her schoolteachers and friends, so she remembered her.

Later she went to Marseilles to learn advanced classical

pieces by the great composers of the time including Beethoven and Chopin. That was with a male teacher whose name she couldn't recall.

Robine asked her in 1992 if she would still be able to play the piano if they brought one to her. *"I haven't forgotten! I was playing not that long ago,"* she replied.

[7] (26 June 1992, 0:57)	Translation
JMR: Vous oubliez facilement. Et les noms de vos précepteurs, ceux qui vous gardaient à la maison? Vous vous souvenez des noms de vos précepteurs?	JMR: You forget easily. What about the names of your tutors, the ones who kept you at home? Do you remember the names of your tutors?
MC: Qui?	MC: Who?
JMR: De ce qui vous a enseigné la musique chez vous chez vos parents?	JMR: Who taught you music at home with your parents?
MC: Oui. Oui, oui. C'est plus récent, ça. Oui, Mademoiselle Gachon...	MC: Yes. Yes, yes. That's more recent. Yes, Miss Gachon.
JMR: Famille Gachon?	JMR: Gachon family?
MC: Mademoiselle Gachon. Ça c'est mon professeur de piano pour le début. Au début, après j'ai un autre, plus tard.	MC: Miss Gachon. That's my piano teacher at the beginning. At the beginning, then I had another one, later.
	JMR: What was the

JMR: Comment il s'appelait votre premier professeur de piano?
 MC: Césarie Gachon.
 JMR: Ah, c'est Gacho?
 MC: Césarie Gachon.
 JMR: Césarie Gachon, très bien. Est-ce vous avez appris facilement le piano?
 MC: J'étais doué. J'avais le gout.
 JMR: Est-ce que vous seriez capable de rejouer du piano, si on vous en apportait un piano?
 MC: Ah, mais... j'ai pas oublié! Il n'y a pas si longtemps, je jouais encore! Ah ha.
 JMR: Ah, bon! Qu'elle musique vous jouais au piano? Quelles sont les noms des compositeurs que vous préférez?
 MC: Première c'était Césarie Gachon, après c'était Mme... Mme... hm... après j'ai eu un professeur homme.

name of your first piano teacher?
 MC: Cesarie Gachon.
 JMR: Oh, it's Gacho?
 MC: Cesarie Gachon.
 JMR: Cesarie Gachon, very good. Did you learn the piano easily?
 MC: I was gifted. I had the taste.
 JMR: Would you be able to play the piano again if someone brought you a piano?
 MC: Oh, but I haven't forgotten! Not so long ago, I was still playing! Ah ha.
 JMR: Ah, well! What music do you play on the piano? What are the names of your favourite composers?
 MC: First it was Cesarie Gachon, then it was M-me... M-me... hm... then I had a male teacher. I went to Marseille, and I had a male teacher. Good

J'allée à Marseille et j'ai eu un professeur homme. Bon professeur.
 JMR: Pendant combien d'années vous avez appris au piano? Toute votre vie?
 MC: J'ai commencé, j'ai commencé à sept ans. J'ai commencé de Solfège. Puis après j'ai continue. J'avais des dispositions pour ça.
 JMR: Est-ce que vous souvenez de vos camarades? Vos copines de Solfège?
 MC: No, le prénom, no.
 JMR: Et le nom de famille?
 MC: Non plus. Je suis un peu fatigue.

teacher.
 JMR: For how many years did you learn the piano? All your life?
 MC: I started, I started at seven years old. I started with music theory. Then I continued. I had an aptitude for it.
 JMR: Do you remember your classmates? Your friends from the class?
 MC: No, the first name, no.
 JMR: And the last name?
 MC: Not anymore. I'm a little tired.

The validators mistranscribed the name of the music teacher as Césari Gaston (a male name) [2] p93-94, [3] p99-100.

In Readers Digest [18]	Translation
VL: Un Marseillais du nom de Césari Gaston.	VL: A Marseillais by the name of Césari Gaston.

Nous avons vérifié ces détails: ils étaient tous exacts!	We checked these details: they were all correct!
--	--

In fact, they had the origin, gender and both names wrong. The identity of the piano teacher was revealed by Jeanne-Claude Lamy who published a book about Jeanne Calment in 2013. It was Césarie Gachon, a girl from Arles just seven years older than Jeanne.

Gachon was announced as a singing teacher at the girl's secondary school in 1886 and is listed by *Indicateur Marseillais* as a piano teacher since the following year. She lived behind her father's bakery near Jeanne's childhood home and can be found in the census returns as a piano teacher in 1896 and as a music teacher in 1911.

After she died in 1916 the *Cours Secondaires* were searching for a new music teacher in Marseilles. Lamy quoted Mme Calment as giving him the correct name and location for Gachon:

From Lamy [1] p59	Translation
MC: Mon professeur de piano s'appelait Césarie Gachon. Elle habitait un appartement derrière la boulangerie de ses parents	MC: My piano teacher was called Césarie Gachon. She lived in an apartment behind her parents' bakery

We are sceptical of this quote. She never mentioned the bakery in any recorded interview. It seems likely to us that Lamy found the details for the teacher in the census records or *Indicateur Marseillais* himself.

This is not the only case when we could not verify information provided by Lamy. Another example is his quote from a certain Flamant which Lauren Collins later picked up for her New Yorker article:

From Lamy [1] p49	Translation (by Lauren Collins in her article for New Yorker [46])
Magdeleine Flamant: Madame Calment voulut m'imposer son goût. Têtue, je suis restée sur mon choix en lui répondant sur un ton qui lui a déplu. Je n'ai pas oublié sa paire de gifles.	The Calments lived in grand apartments above the family store. Jeanne appeared occasionally, cutting an imperious figure. "Madame Calment wanted to impose her taste on me," a woman later said, remembering a girlhood errand to buy fabric. "Stubborn, I stuck with my choice, replying in a tone that didn't please her. I haven't forgotten the pair of slaps."

From Lamy [1] p49	Translation
Lamy: C'était en 1910. La fillette de l'époque devint une presque centenaire. Elle est décédée à plus de 90 ans, bien avant l'irascible Jeanne qui n'y était pas allée de main morte!	Lamy: It was 1910. The little girl at the time became an almost 100-year-old. She died at more than 90 years of age, well before the irritable Jeanne, who had not gone easy on her!

The problem with this testimony is that to the best of our knowledge there were no Flamants living in Arles in XX century. No Flamant birth was recorded from 1893 to 1902 in the town archive, and no death of any Flamant from Arles was recorded at least since 1970. If someone really did recall that Madame Calment abused a customer in 1910, they would probably refer to Maria and not Jeanne.

The memory of the piano teacher was cited by Zak as evidence of the switch because Gachon would have been only 14 years old when Jeanne started learning music theory with her [5].

Mme Calment's supporters contest that the memory of Gachon living behind the bakery proves that she was Jeanne, because Césarie's father retired from being a baker six years before Yvonne was born [29, 32]. According to Collins,

"Calment's piano teacher, Césarie Gachon, proved

to be a compelling witness from beyond the grave." [46]

In our opinion this conclusion does not follow because the bakery was probably not a memory from Mme Calment and was found by Lamy. Even if she was really talking about the Gachon's bakery, that would not be strong evidence against the switch.

Gachon's ancestors had been bakers at rue St. Cesarie since the beginning of the 19th century. When Yvonne was a child Gachon lived behind the former bakery of her parents at place St. Cesarie and could still refer to it as such even after another baker (Meirieu) took it over. Similarly, Café Puech and Maison Calment retained their names long after the change of ownership.

The piano that Jeanne owned in her home was an *Aurand Wirth* from 1870. There is a picture from about 1920 of her playing it with Fernand watching. If Jeanne started learning at age seven on the same instrument, the piano could have been taken from her first home at 5 rue du Roure to 53 rue de la Roquette and then to the apartment above the Calment shop. In 1996, Paris Match had the piano brought from her apartment to Mme Calment at the Maison du Lac as a treat for Jeanne's 121st birthday [47]. By then she was too frail to be able to play it. The piano was still at the retirement home when it was shown in a TV documentary in 2019 [16].

Based on the incomplete information we have, it is possible that both Jeanne and Yvonne were taught piano by Césarie Gachon. Either would therefore be able

to give the details provided by Mme Calment in her interviews.

Madame Calment said that she took a train to Marseilles in the afternoon where a professor taught her music and then went back home [7] (26 June 1992 0:19). She also said that she studied in the *conservatoire* (music school) a bit. This could be true for either Jeanne or Yvonne or both.

Conclusion: On balance Mme Calment's memory of her piano teacher does not help us determine whether she was Yvonne, but it also does not provide support for Jeanne Calment's authenticity as claimed by her defenders. We assign this evidence the neutral likelihood ratio of 1.

LOVE, MARRIAGE AND FAMILY



Joseph Billot at St. Trophime, Arles, 1950s

THE DANCE HALL



Jeanne Calment (?) in a bridal costume

Mme Calment told her validators that she went to a ball organised by the Alliance Française, a group that promotes the French language. There were smaller balls every Saturday, but

She only went to the grand ball by the Alliance Française once before she married, when she was 16 or 17 [2] p101.

On the audio recording, she said that

It was at the theatre [7] (27 November 1992 21:03), but half an hour later changed it to the town hall, and she went there with her father (27 November 1992 cont. 06:40).

When her validators asked which theatre, she replied that *there was only one in Arles*. Did she dance on the stage? *No, they were downstairs with chairs around for the parents*. Mme Calment also told them that

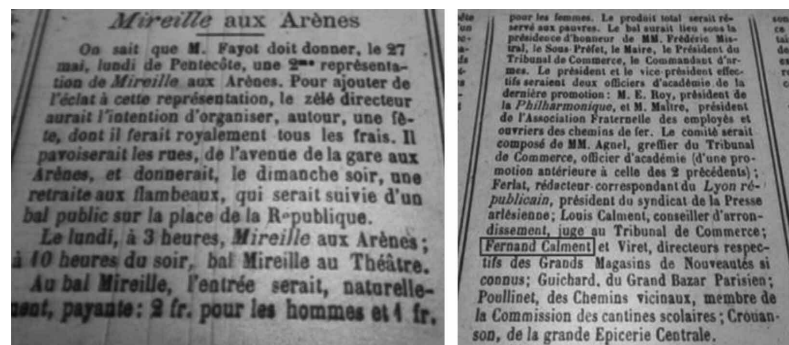
She attended another ball for the Red Cross [7] (27 Nov 1992 29:45)

and the Arlesian Ball where they dressed in the traditional costume of the region [2] p103.

At first, she described her gown as a *white laced bridal costume*. Then she changed it to a *Mireille* (traditional dress for unmarried girls). She might have been confusing more than one occasion.

Jeanne also assisted at a Mireille Ball by “a society” in the Municipal Theatre where she was dressed in the wedding costume with a Malines lace cape (10 February 1993 20:55), [1] p151.

This could correspond to the dress on the photo found by Patricia Couturier that we believe shows Jeanne in a bridal gown, though it is not verified. We know that the Calments were involved in the Mireille ball at the Arena of Arles:



Mireille Ball in May 1901 supervised by Mistral. The cousins Fernand, Louis Calment and Nicolas Crouanson were in the committee

In 1988 Mme Calment allegedly told Paris Match that

She was just married when Mistral had inaugurated the museum of Arles (this occurred in 1899). She wore a red dress and her mother's diamond necklace. Afterwards they danced at the Folies Arlésiennes with a circular gallery. They made a carpark there today. [10, 11]

Her memory of the Folies Arlésiennes is confirmed in the INSERM audio files where she also remembered it for dancing and not as a theatre [7] (15 Jun 1993 06:00).



When Mme Calment said that there was only one theatre, she must have been referring to the Municipal Theatre of Arles which was finished in 1841 and still holds performances today. It is located at the other end of rue Gambetta where it met rue du Theatre (now rue Jean Granaud) facing across the Boulevard des Lices.

However, there had been at least one other prominent theatre in the town (not counting the antique Roman theatre or the larger Roman Amphitheatre). In January 1889 Vincent Van Gogh was very impressed by a traditional pastorelle depicting the birth of Christ:

"Yesterday I went to the Folies Arlésiennes, the budding theatre here — it was the first time I've slept without a serious nightmare... That was amazing, amazing..." [25]

A month earlier, shortly before the nervous breakdown, he had painted the scene of a grand ball at the same location in a room with a gallery around it.

Historians in Arles have diligently investigated the locations of the Folies Arlésiennes because of its connection to Van Gogh. Although it might have moved from a different place in 1884, it was undoubtedly at 4 Avenue Victor Hugo when Van Gogh knew it.

Ten years later, the future mayor of Arles Honoré Nicolas has purchased this site to turn it into a wine warehouse. It became the Odeon cinema in 1929. The building is still standing and the dance hall with its gallery is disused but recognisable.



Project of casino-cinema and Theatre in the former Folies Arlésiennes



The Dance Hall in Arles, 1888 by Van Gogh



Present day Odeon (former Dance Hall)

Unlike the more refined municipal theatre, the early Folies Arlésiennes in the time of Van Gogh was a vulgar establishment that Jeanne would not frequent. The town council wanted a larger venue so that the dances would be less exclusive.

According to municipal council records, in 1907 the director Jules Dallard started to rent a big hall capable of hosting 1500 people continuing the Folies Arlésiennes name at *Enclos Roubaud* at Bld. des Lices.

Calment's employee Marius Maxence met his future wife at that new venue before WWI. They were enjoying quadrille, polka, and Scottish reel – all these dances were also mentioned by Mme Calment.

In 1916 the dancing hall was the subject of a health report by Dr Rey, in which he complained about the lack of privacy in the public facilities:

Anyone standing on the gallery could see directly into the toilets – and the plethora of signs asking clients to refrain from using corners of the music hall as urinals [20].

In 1919 the socialist Dr. Morizot succeeded Jean Granaud as mayor of Arles. Fighting diseases such as tuberculosis, he devoted a lot of effort to ameliorating the hygienic situation in the town. The push to improve the dance hall culminated in its closure in 1924 and creation of the modern venue, "*Salles des fetes*" which is still there today.

A large carpark next to it confirms that it is the place where Mme Calment was reported to celebrate the inauguration of the Arles Museum in 1899. This is not possible because this location was used only after 1907.

Yvonne, on the other hand, could start attending this venue already in 1908 when the *grand bal enfantin* was organized there by *l'Escolo mistralenco*.

This is not the only plot hole in her story. According to the Indicateur Marseillais and the local press, the Alliance Française was not formed in Arles until 1895 when Jeanne became engaged a year before her marriage, so only Yvonne could dance there at the age of 16.



Early days of the Alliance Française in Arles, 1895

Dr. Félix Rey who cared for Van Gogh and later headed the tuberculosis clinic in Arles was a member of the

initiative commission while Calment's notary Victor Lucien Arnaud became a vice-president. The Alliance started to organize multiple patriotic events in Arles where French and even Russian anthems were played by local music groups.

On 24th April 1897, 9 months before the birth of Yvonne, the newspaper *Homme de Bronze* described a ball organized by the Alliance Française in the Theatre:

"The family ball given by the Arles group of Alliance Française on the last Saturday of April, in the theatre hall, graciously granted by the municipality, was a great success. No effort was spared to make the evening as attractive as possible.

Thanks to the activity of the Alliance Committee, particularly of Mr. Lucien Arnaud, chairman of the Ball Committee, many members came to the evening with their families. A brilliant and select group of people crowded into the dance hall, which was artistically decorated for the occasion.

The vestibule, decorated with draperies and flowers, gave an impression of good taste and tone from the moment they entered, which was confirmed by the appearance of the hall itself. All along the first and second galleries and around the boxes ran boxwood garlands decorated with roses of all colours, the effect of which was ravishing.

These garlands were raised here and there by

bundles of banners and tricolour flags spread in profusion up to the arch and around the chandeliers, with in the background, in the very middle of the decoration, a magnificent medallion due to the brush of a true artist, Mr. Justice of the Peace Nozeran.

At the tip of the stage, on a brilliantly designed platform, an orchestra composed of elite musicians, under the direction of Maestro Janguier, whose magic wand immediately makes the lively groups of dancers joyfully shake.

At about 9 and 1/2 o'clock the carriages began to arrive through the large crowd of curious members and their families. At 10 hours the ball was opened by Mr. Paul Tardieu, president of the Alliance Committee and Mme Lucien Arnaud. From then on, the liveliest animation was established in the hall and continued until the complete execution of the programme.

This programme, very well composed, includes two parts cut by a pause and ended by a farandole. Polkas, mazurkas, waltzes, and quadrilles follow one another with great enthusiasm. Joy shines in all eyes. One feels oneself in a select society where the most perfect correctness reigns, without exaggeration or stiffness, with an air of good grace and charming familiarity which denotes, in all those present, the exquisite feeling of fashionable etiquette.

In the interval between the dances, couples of young men and women distribute to the ladies and young girls very elegant bouquets, the brilliance of which enhances their finery.



Jeanne in a dress she might have worn to the ball on April 24, 1897

Between the two parts of the ball, we have the good fortune to hear the fine Arlesian singer M. Mourrier, who regales us with a few songs by Nadaud, rendered with an exquisite pressure and a feeling for nuance that is quite remarkable.

The buffet, run by M. Dallard, had been amply furnished with first-class drinks. The dancers also repeatedly drew new energy and strength from transparent glasses of golden champagne.

The second part of the ball was no less brilliant than the first. In the beginning a very beautiful polka called 'Alliance Polka', composed for the occasion by M. Jacquier, was played. The applause of the audience proved to the distinguished composer that his work had been appreciated at its true value.

The 'quadrille des lanciere', the 'polka badoise', the 'pas de quatre' were all in the air and made the joy of all. We will not describe the dresses of the ladies and girls, whose charming groups are like an animated parterre of flowers. It suffices to say that they were simply ravishing and that it was a pleasure to see this variety of tasteful colours, where white and pink predominate, worn with such grace.

The evening ended with a joyful farandole, whose graceful undulations reverberated through the corridors. This family ball will leave an excellent impression on everyone. Let us congratulate the organisers and especially Mr. Lucien Arnaud, to whom all the honour belongs and who fulfilled his role as president with the best grace in the world.

Finally, let us thank the Committee of the Alliance Française which, faithful to its program, knows

how to give such celebrations. Let us applaud their selfless efforts to bring a bit of animation to our city and to group all the good wills in the same thought of national and local solidarity.

Evenings like those of April 24 have nothing to frighten even the most scrupulous consciences. They are likely, on the contrary, to spread more and more this spirit of urbanity, of correctness and of good tone which is the characteristic of the French character and of which our fathers, since the XVII century, bequeathed us tradition."

Conclusion: Mme Calment's accounts of her experiences at the dance halls seem confused. She mixes up different events. She says she was 16 at an Alliance Française ball but this is possible only for Yvonne while Jeanne could attend such a ball in 1897 as a married woman. Another site for dancing she claimed to use in 1899 was established only in 1907.

Her supporters might say that some confusion is to be expected after 100 years, but it is easier to explain if she was really Yvonne with a later knowledge of the venues. We assign this evidence the likelihood ratio of 2 in favour of the switch.

FERNAND'S SCHOOL



Pre-marriage photos of Fernand and Jeanne

Mme Calment said that Fernand studied in Avignon and came back to see her in Arles when she was 15 years old [2] p65, [3] p65 (not available on the published tapes), and that he was studying at the time she attended the Alliance Française ball at age 16 [7].

[7] (27 November 1992 07:13)	Translation
VL: Qui vous aviez comme cavalier à ce moment-là?	VL: Who did you have as a date then?
MC: Oh, plusieurs. Quantité! Quand on est jeune on en a tant qu'on veut.	MC: Oh, plenty. A lot! When you're young, you can have as many as you want.
VL: Vous étiez marié ou vous étiez encore jeune fille?	VL: Were you married or were you still a young girl?
MC: Jeune fille.	MC: Young girl.
VL: Est-ce que vous vous rappelez le nom de ces cavaliers?	VL: Do you remember the names of these suitors?
MC: Non, non. Vous me demandez trop!	MC: No, no. You're asking me too much!
VL: Non, je suis sûr que si vous faites un effort...	VL: No, I'm sure if you make an effort...
MC: Non.	MC: No.
VL: Vous y arriverez.	VL: You'll get there.
MC: Non.	MC: No.
VL: La dernière fois, vous nous avez étonnés par votre mémoire.	VL: Last time, you surprised us with your memory.
MC: Possible.	MC: Possibly; I don't remember that.
VL: Vous avez connu votre mari à ce moment-là?	VL: You knew your husband at that time?
MC: Ah bah c'était	MC: Oh well, he was my cousin. When I was

<p>mon cousin. Quand je suis née mon cousin avait sept ans. Entendez?</p> <p>VL: Oui, oui.</p> <p>MC: Plus tard quand il fait ses études... Il a épousé la cousine.</p> <p>VL: Et il faisait partie des cavaliers?</p> <p>MC: Mon mari?</p> <p>VL: Oui. Là, quand vous alliez au bal.</p> <p>MC: Non...</p> <p>VL: Alors vous faisiez pas danser là?</p> <p>MC: Non. A ce moment il faisait ces études.</p>	<p>born, my cousin was seven years old. Do you understand?</p> <p>VL: Yes, yes.</p> <p>MC: Later when he went to school... He married the cousin.</p> <p>VL: And he was one of the dance partners?</p> <p>MC: My husband?</p> <p>VL: Yes. There, when you went to the ball.</p> <p>MC: No...</p> <p>VL: So, you didn't dance there with him?</p> <p>MC: No. At that time, he was doing his studies.</p>
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[2] p65
<p>VL: How did you get married?</p> <p>MC: Ah! That I don't remember. He was seven years older than me when I was born, and he was in Avignon. I went there on holiday. Each time I pleased him, and I grew up... Every time he came to Arles he would come and say hello to me. Me, I was fifteen, I didn't pay attention. I was at the age when I still wanted candy!</p>

From a report in "*La Semaine Mondaine*", we know

that in 1909, when Yvonne was 11, Fernand attended a banquet for former students of the *Lycée d'Avignon*. The school was later renamed after Frédéric Mistral. Fernand is absent from his parents' home in the 1881 census so it seems likely that he was at boarding school in Avignon at that time when he would be 13.

Later he come back and passed the baccalaureate at the Arles College in 1886 at the age of 18. Then he took up trading in the store on the death of his father Jacques. Military documents describe him as *négociant* in Arles in 1888 when Jeanne was 13.

Although Mme Calment was correct about Fernand going to school in Avignon, it is not possible that he was there until Jeanne was 15 or 16. Yvonne could easily be aware that he was in Avignon (27 November 1992 11:30) but could have confused the age of Jeanne at their meeting when he was back in early 1880s with that of Fernand who was 7 years older.

Mme Calment said that Fernand did not date her at the ball when she was 16 because he was studying. When Yvonne was 16 to 20, her future husband Joseph was fighting in WWI so they could not dance together but Jeanne would know better if Fernand could be her dance partner in early 1890s.

Conclusion: Mme Calment's knowledge of where Fernand went to school does not help us to assess whether there has been an identity switch.

Her story about Fernand not being among her multiple suitors at the ball because he was studying when Jeanne

was 15 or 16 does not fit. This error of memory is easier to explain for Yvonne than for Jeanne. We assign this evidence the likelihood ratio of 2 in favour of the switch.

DRESSMAKER CHAMBOURDON

Mme Calment said she wore a beautiful fashionable white dress with lace to a grand ball of the Alliance Française in Arles when she was 16. We already know that this was possible for Yvonne and not for Jeanne. She initially hesitated about the origins of the dress suggesting that it came from her husband's store. However, she was not married yet and according to her own (incorrect) testimony Fernand was studying at the time of the ball.

[7] (27 November 1992 11:26)	Translation
VL: Quand vous étiez allé à ce bal, qui c'est qui vous avez fait la robe?	VL: When you went to this ball, who made the dress for you?
MC: Oh ça! Je sais plus.	MC: Oh that! I don't know.
VL: Vous avez faites chez vous ou vous l'aviez acheté?	VL: Did you make it at home, or did you buy it?
MC: A magasin de mon mari, magasin de nouveautés.	MC: At my husband's store, a novelty store.
VL: Vous avez pris le	VL: You took the fabric, and you made it in

tissue et vous l'aviez fait à Arles?	Arles?
MC: Ah, la couturière à Arles, oui, bonne couturière, au renom.	MC: Ah, the seamstress in Arles, yes, good seamstress, renowned.
VL: Elle s'appelait comment?	VL: What was her name?
MC: Chambourdon. Chambourdon.	MC: Chambourdon. Chambourdon.
VL: C'est elle qui vous faisait tous vos vêtements?	VL: She made all your clothes?
MC: Oui, à peu près. Il y a en avait une autre.	MC: Yes, more or less. There was another one.

The dress was made by a well-known dressmaker whose name was transcribed by the validators as *Madame Chambourgon* [2] p101, [3] p107. From public census records in Arles, she was identified as the *couturière* Angeline Henriette Chambourdon (1840-1898) by François Robin-Champigneul.

Mme Calment said that Chambourdon made most of her dresses. The ball gown she wore was also described as the bridal costume. A recently found picture appears to show the young Jeanne Calment wearing such a dress with a necklace matching the authentic photo of Jeanne.



Jeanne (?) in the bridal costume vs Jeanne in the "Gala" costume

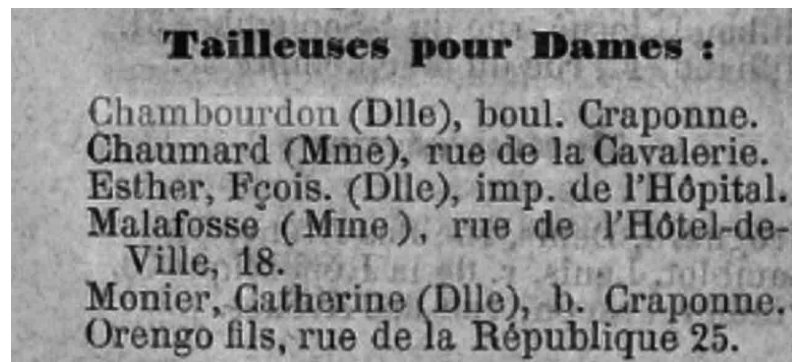
Angeline's grandfather Philippe Chambourdon arrived at Arles from Salon around 1776. He was a drapery trader and dressmaker like his father Antoine, and so were most of his children and grandchildren. Angeline had a first cousin, insurance agent Jean Hypolite Chambourdon who married Anne Roux, a niece of another Anne Roux who was the grandmother of Maria Félix.

It sounds like a distant relationship, but Jean Hypolite Chambourdon was a witness at the marriage of Maria Félix and Jacques Calment. Jacques founded their drapery shop in the house which earlier belonged to his grandmother-in-law Anne Roux, so they knew each other well and there was a strong connection between the Chambourdon family and the Calments.

From the validators' audio tapes, we understand that Chambourdon made dresses for sale at the Calment shop. Mme Calment knew that the dressmaker lived at Boulevard Craponne near the old *église des Carmes*

Déchaussés.

There was a second dressmaker, but she could only remember her first name Catherine. The trade directories show that there was a Catherine Monier (b. 1842) living on the same road, so she was almost certainly the second dressmaker who also made Mme Calment's dresses.



Dressmakers Chambourdon and Monier listed at Blvd. Craponne, 1890s

Indicateur Marseillais listed Angeline Chambourdon in 1903 but she had actually died in 1898. Catherine Monier was a couturier until at least 1914, so she could have taken over Chambourdon's dressmaking for the Calment family and the shop. For example, she might have made Yvonne's communion dress.

Angeline Chambourdon had a brother, Henri Philippe, who was a professor of mathematics in Metz. After she died, his son Sosthène Chambourdon moved to her house at Boulevard Craponne with his family. In 1911 they lived there with two maids including Antoinette Monier.

Angeline also had four sisters, all of whom became couturiers. One of them, Marie Louise Pétronille, lived in Paris as a dressmaker until 1929. She would have been more widely known beyond Arles and could have continued to supply dresses to the Calment shop. Mme Calment said that they didn't use the dresses from Paris but a note in the local paper of 1907 suggests otherwise.



Renewed unseen assortment for Maison Calment after a trip to Paris

It is therefore quite feasible that even after Angeline's death they continued to call the dressmaking workshop "*Chambourdon*", as was often the case with businesses in Arles, e. g. Café Puech and Maison Calment after it closed in 1938.

Mme Calment's knowledge of the couturier has been described as strong evidence in support of her authenticity as Jeanne, especially because Chambourdon died the same year that Yvonne was born [29, 32]. How would Yvonne have been able to recall the name and address of a dressmaker that lived before her time?

It must be understood that in the switch scenario Yvonne would use the small number of things she knew

well about her mother's early life to make believe that she was Jeanne.

Mme Calment often had difficulty recalling events and friends, but whenever she was asked about dresses, she always had a lot of details to give. Jeanne's daughter Yvonne was a keen follower of fashion. From photos she appears to have been close to her grandmother Maria Félix who was herself a fashion icon as matriarch of the Calment drapery shop. Yvonne would have seen her mother's photos in which she wore the traditional Arles costumes and would almost certainly have been familiar with the name of the dressmaker.

We refute the claim that this is strong evidence in favour of Mme Calment being Jeanne but accept that it gives a small advantage against the switch.

Conclusion: Some supporters consider Mme Calment's knowledge of the dressmaker's name as the extraordinary confirmation of her authenticity. It is easy to see how the dressmaker Chambourdon would be known to Jeanne, but her daughter Yvonne probably also knew of her existence.

Just before revealing this name Mme Calment made several mistakes related to the timing of the ball which would be expected from Yvonne and not from Jeanne. We generously assign this evidence the likelihood ratio 0.5 in favour of no switch.

THE HONEYMOON



Jeanne and Fernand

Jeanne married her double second cousin Fernand in April 1896. In the recorded dialogue with her doctor Mme Calment said that for their honeymoon they went to Paris and then Switzerland by train.

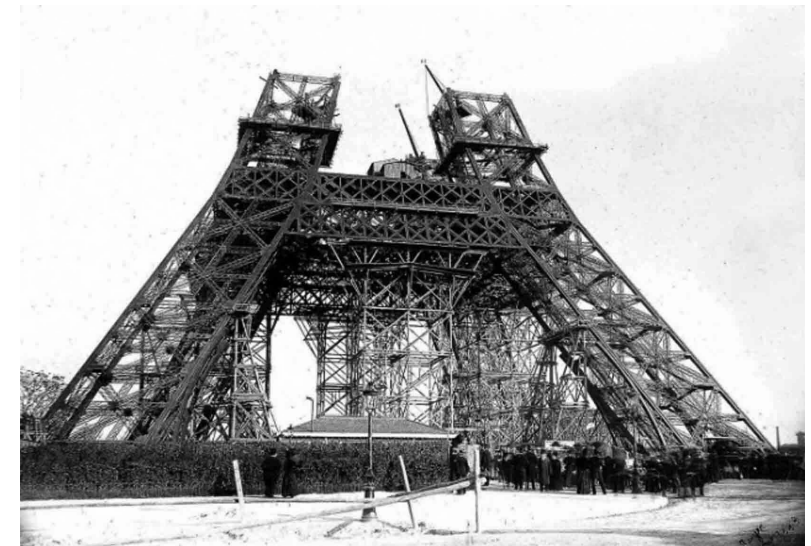
In her Paris Match interview of 1988, they went to Switzerland first, then Paris [10, 11].

She could not remember anything about where exactly they went in Switzerland. In Paris they visited the Eiffel tower, but she repeatedly claimed that it was only built up to the first floor [7] (25 May 1994 02:00, 10 Jun 1994 19:00, 22 Sep 1994 04:50, 15/22 Sep 1994 23:00). They went up in the lift.

Tour Eiffel would be at that point of construction in 1888 and was completed in 1889, seven years before their marriage. Her testimony therefore cannot be correct.

Norris MCWhirter from the Guinness book of records claimed that she witnessed the creation of the tower in 1889 while travelling to Paris with her father [22], but in the interviews she said that she had never been there before her marriage.

Dr. Lèbre suggested that she was confusing her honeymoon with a hypothetical story from Fernand who could have visited Paris in 1888. From newspapers we know that Fernand's uncle Claudius attended the *Universal Exposition* in 1889 but the tower was completed in time for that exhibition and was its central attraction.



Eiffel Tower under construction in 1888

At another point in the recording [7] (25 May 1994 03:47), the interviewers were surprised again. There would be very few cars around in 1896 but Mme Calment says there were many “voitures” in Paris, she couldn’t count them.

Today we would translate *voiture* as car, but in later discussions the interviewers accepted that she used it to mean a horse-drawn carriage. 100 years ago, the carriages were indeed called *voitures* but in 1990s Mme Calment knew the difference. In other conversations she uses the term “break” for a horse-drawn cart.

Mme Calment said that they also visited the Sacré-Cœur that still had some parts to be built. It was constructed between 1875 and 1914 so here her testimony is plausible. They saw the Lumière brothers’

film *L'Arroseur Arrosé*. This was first screened in 1895 so again the timing fits.

Conclusion: Her description of the honeymoon does not always fit the historic events for Jeanne. The validators discussed the apparent confusion but did not include this testimony in their books. We assign this evidence the likelihood ratio of 1.5 in favour of the switch.

WEDDINGS



Yvonne and Joseph Billot wedding, 1926

In the biography by Cavalié, Madame Calment speaks about her wedding dress:

"A model from the Maison Worth in Paris, which the dressmaker copied with great skill. The moire skirt is decorated with two slopes of fringes and pearls, the veil is in tulle embroidered with seedlings of carnations." - Translated from [9].

This description matches the photos of Yvonne's wedding. It was the type of dress that was fashionable at the time and one can find many similar gowns and veils decorated with flowers in the issues of Vogue from 1926.



We have probably seen Jeanne's wedding dress and the 1896 design from the house of Worth looks completely out of place for Arles. Thus, we can be confident that the dress described by Cavalié fits the wedding of Yvonne and not Jeanne.

Unfortunately, this testimony was not found on the available tapes, but the weddings were discussed several times and there are other interesting confusions there.

Madame Calment told Dr. Lèbre that they had a meal in Hôtel du Nord:

[7] (26 June 1992, 28:47)	Translation
VL: Vous aviez fait des fiançailles officielles? MC: Ah ben chez nous. Eu un dîner, un grand dîner. VL: Est ce qu'il y avait beaucoup d'invités? Vous rappelez? MC: Oui. VL: Et pour le mariage, ça a été différent? MC: Ah mariage, c'était à l'hôtel. VL: Oui, c'était, il s'appelait comment cet hôtel? MC <timidly>: Hôtel du Nord, je crois... Hôtel du Nord...	VL: You had an official engagement? MC: Oh well, at home. Had a dinner, a big dinner. VL: Were there many guests? Do you remember? MC: Yes. VL: And for the wedding, it was different? MC: Ah wedding, it was in a hotel. VL: Yes, it was, what was the name of the hotel? MC <timidly>: Hotel du Nord, I think. Hotel du Nord...

(10 June 1994, 17:55)	Translation
VL: Vous avez fait le repas à quel endroit? Après, pour le mariage? MC: Hmmm. Endroit que...à l'époque... VL: Vous l'aviez dit. Je crois que c'est l'Hôtel	VL: Where did you have the meal? Afterwards, for the wedding? MC: Hmmm. Place that...at the time... VL: You said it. I think it was the Hotel Nord Pinus.

Nord Pinus. MC: Oui, oui. VL: Un hôtel qui est sur la Place du Forum. MC: Oui. VL: Vous rappelez ce qu'il y avait au repas? MC: Oh, là vous demandez trop.	MC: Yes, yes. VL: A hotel which is on the Place du Forum. MC: Yes. VL: Do you remember what was at the meal? MC: Oh, now you are asking too much.
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When trying to recall the type of flowers at the wreath from Yvonne's communion dress Mme Calment mentioned a wreath with white lilacs which she herself wore at her wedding.

(13 February 1993, 16:33)	Translation
VL: Décrivez-moi un peu sa robe. MC: La robe en mousseline blanche, classique. Une couronne de fleurs. VL: C'était quoi comme fleur? MC: Oh! Là, vous m'en demandez un peu trop. Quand je suis mariée, j'avais une couronne, une couronne de lilas blanc. Mais ça, c'est	VL: Describe her dress a little bit. MC: The classic white muslin dress. A crown of flowers. VL: What kind of flower was it? MC: Oh, now you're asking too much. When I was married, I had a crown, a white lilac crown. But that's when I was married.

quand je suis marié.	
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A year later she said that her godmother gave her this wreath:

(10 June 1994, 17:05)	Translation
VL: Sur la tête, le voile est tenu avec quoi? Vous aviez une couronne, un diadème? MC: Oui, j'ai une couronne de lilas blanc. C'est ma marraine qui m'a faites une couronne de lilas blanc.	VL: On the head, the veil is held with what? Did you have a crown, a tiara? MC: Yes, I had a white lilac crown. My godmother made me a white lilac crown.

At another interview when Dr. Lèbre asked Madame Calment about the marriage of her daughter, she said that she recalled it very well. She confidently told him that Jeanne's godmother gave Yvonne a crown with white lilacs.

Dr. Lèbre was surprised and asked if this was like at her own marriage. Madame Calment affirmed that indeed, at her own marriage her godmother gave her the crown. As for Yvonne, she now said that she was not sure who gave her the crown:

(25 and 26 February 1993, 13:35)	Translation
VL: Vous vous rappelez le mariage d'Yvonne?	VL: Do you remember Yvonne's wedding?
MC: Bah, comment je pas se rappeler?	MC: Well, how can I not remember?
VL: Est-ce que vous pouvez m'en parler un peu? Où est ce qu'il s'est passé?	VL: Can you tell me a little bit about it? Where did it happen?
MC: A St. Trophime.	MC: At St. Trophime.
...	...
VL: Est-ce que vous rappelez la robe de mariée d'Yvonne?	VL: Do you remember Yvonne's wedding dress?
MC: Oui bien sûr, tiens, c'est moi qui l'ai commandé. La robe blanc commune, naturellement.	MC: Yes of course, well, it was me who ordered it. The common white dress, naturally.
VL: Avec une grand-voile?	VL: With a large veil?
MC: Naturellement, et la couronne. La couronne de fleur. Ma marraine lui avait payé une couronne de lilas.	MC: Of course, and the crown. The crown of flowers. My godmother bought her a lilac wreath.
	VL: Was it like your

VL: Est-ce que c'était comme à votre mariage? Quand vous êtes marié, vous aviez quelle couronne, vous?	wedding? When you got married, which crown did you have?
MC: La couronne que ma marraine aurait payée!	MC: The crown my godmother would have paid for!
VL: Oui, et Yvonne?	VL: Yes, and Yvonne?
MC: Yvonne... je me rappelle pas... C'est sa marraine aussi? Je me rappelles pas. C'est sort de détaille que ne reste pas.	MC: Yvonne... I don't remember... Is that her godmother too? I don't remember. It's a kind of detail that doesn't stay.

In their book the validators had mistranscribed “*ma marraine*” (my godmother) as “*Madame Arel*” and offered a shortened and modified version of this talk about the crowns:

[3] p35	Translation
Mme Arel lui avait payé des branches de lilas; une couronne de lilas. [...] Moi, j'avais la couronne que ma marraine m'avait payée.	Mme Arel had bought her lilac branches, a crown of lilacs. [...] I had the crown that my godmother had bought me.

The confusion disappears but this is not an accurate

representation of the tapes.

Mme Calment continued the description of Yvonne's wedding. She said they had a meal at Hôtel du Nord. Dr. Lèbre was surprised again and asked if this was like at her own marriage. Madame Calment hesitated. She affirmed that at her own marriage they had a meal at Hôtel du Nord. As for Yvonne, she now said that she was not sure where the dinner was:

(25 and 26 February 1993, 17:36)	Translation
VL: Qu'est ce qui s'est passé encore à ce mariage?	VL: What else happened at the wedding?
MC: Grand repas. La musique, classiques.	MC: Big meal. Music, classical stuff.
VL: Où est ce qu'il a eu lieu le repas?	VL: Where did the meal take place?
MC: A l'hôtel du Nord.	MC: At the Hotel du Nord.
VL: Vous êtes sur?	VL: Are you sure? That it was at the Hotel du Nord?
Que c'était à l'hôtel du Nord?	MC: I think so. In any case, mine, it was there.
MC: Je crois. En tout cas, la mien, il était là.	She – I don't remember, she I don't remember.
Elle – en rappelle pas, elle je me rappelle pas.	VL: That's it because that's what you told me.
VL: Voilà, parce que c'est ce que vous m'aviez dit.	And you told me that for you, the meal was at the Hotel Du Nord for
Et comment vous m'aviez dit que pour vous, le repas était à	

l'hôtel Du Nord pour vous.	you.
MC: Oui.	MC: Yes.

These confusions are easily explained if Madame Calment were Yvonne. She projected her memories about her own wedding to that of her mother to describe the event which took place before her birth. Her intonation shows that she was much more confident when talking about the marriage of Yvonne. However, when Dr. Lèbre reminded her that the stories were identical, she was confused and tried to correct herself by pretending not to remember the details of Yvonne's marriage.

As in many other cases, the audio tapes with these interviews provide more information than the transcripts because they contain the intonation, so we recommend the reader to check them.

Conclusion: The projection of memories from Yvonne's wedding to that of Jeanne's and the following confusions strongly support the identity switch hypothesis. We assign this evidence the likelihood ratio of 2 in favour of the switch.

THE CALMENT'S CAR

"Dès le début de mon mariage, nous avons eu une automobile. C'était une Peugeot, je crois." [10, 11]



Victor Hémery in a Darracq car set a land speed record (175 km/h) near Arles, 1905

In the 1988 interview for Paris Match, Madame Calment revealed that she and her husband had an automobile *"since the start of their marriage"*. It was a Peugeot.

Quotes written by journalists are not completely trustworthy. In the same interview she says that she saw Lumière brothers' films in Lyon (they filmed in Lyon but showed in Paris). Such errors might be due to her failing memory, they might be Yvonne's inventions, or they might be embellished by the journalist.

According to the validators' books, when they asked her if she remembered her husband's first car, she only said it was a big event for everyone and she could not remember the make [2] p68, [3] p68. However, on the audio recording from 1994 she does say it was a Peugeot [7] (22 Sep 1994 09:40). She also confirms the claim that they had it at the beginning of their marriage (15 and 22 Sep 05:10).

Just a week before, when talking about the horse races they attended with Fernand she had said (after her usual correction "my father" to "my husband") that they went to it in a *"voiture quatre places, à vis-à-vis,"* that is, in a horse carriage. It seems odd that they would continue to use a horse drawn cart if they owned an automobile.

[7] (07 Sep 1994 cont. 05:20)	Translation
MC: J'y allais avec la voiture de mon père. VL: C'était la voiture de votre père ou de votre mari?	MC: I went in my father's car. VL: Was it your father's car or your husband's car?
MC: Mon mari, voiture quatre places, à vis- à-vis. Et le cheval, ma mère l'avait baptisé <i>Blondinet</i> . C'était Blondinet qui tirait la voiture.	MC: My husband, four- seater, vis-à-vis. And the horse, my mother had named her <i>Blondinet</i> . It was Blondinet who pulled the car.

The world speed record was set near Arles in 1905 but most Arlesians still used horses at that time. A local newspaper reported the story of a crash involving Dr. Rey's family while returning from these horse races in their carriages:

"On Sunday evening, at about 6-30, on the way back from the racecourse, the horse of a four-wheeled carriage driven by M. Rey Désiré, father of Doctor Félix Rey, and transporting Mme Rey and their maid, has suddenly bitten the bit and after a crazy race of about 200 meters, went to throw itself on another two-wheeled car also going to Arles and which, driven by Doctor Félix Rey, was transporting Mme Félix Rey, their little girl and Mr. Imbert Louis, uncle of the doctor.

The shock was terrible. The numerous witnesses of this accident came to the aid of the victims who were lying under the debris of the two literally broken cars. Mr. Imbert, 70 years old, had fractured ribs and received multiple contusions on his body and head. Mr. Félix Rey, who immediately took care of his uncle, had a fractured finger on his left hand. The other victims had only slight bruises."

When Jeanne and Fernand married in 1896, owning an automobile would certainly be exceptional. Seven years earlier in 1889 Peugeot had unveiled its first car powered by steam. Only four examples were made. The company quickly progressed to diesel engines but by

1896 they had still built only about 200 automobiles. Driving one would require considerable knowledge of mechanics just to keep it running.

By 1903 it was possible to buy a small car or "voiturette" in Arles, but that is already 7 years into their marriage. Although he could certainly afford it, to own an automobile before WWI Fernand would have to be a dedicated enthusiast of motor engineering. Instead, we know him as a keen participant in the cycling club.

The first shop to sell motorcars in Arles was run by Joseph Galleron in 16, Place du Sauvage, the same house where the Billot family lived. Galleron was already selling bicycles and sewing machines before motorcars became available in 1903.



In addition to being a prominent singer, Paul Billot, Yvonne's future father-in-law, worked for the railway company and ran an engineering workshop. Joseph could gain his first mechanics experience by working with Galleron in his youth.

Another Galleron, Marie Rose (1898-2000), was Yvonne's classmate and they are seen together on

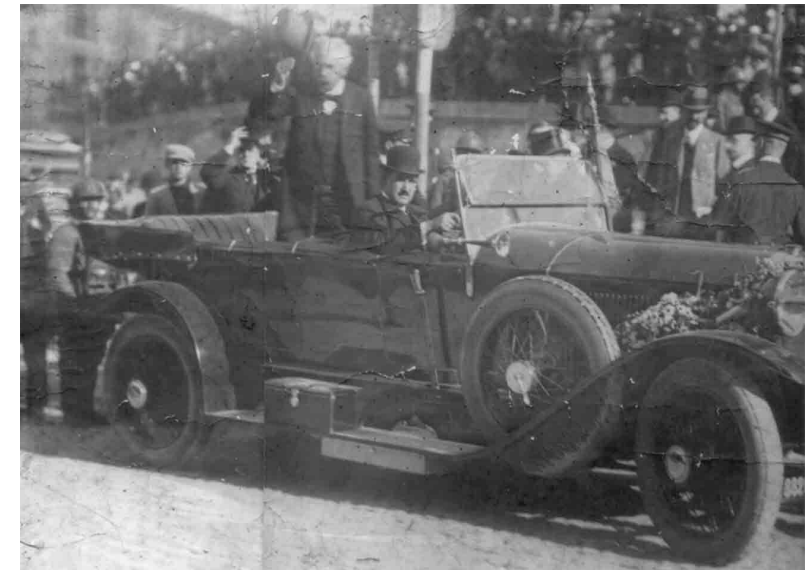
several photos. Like two other friends of Yvonne, Antoinette Billot and Juliette Espeyte, Marie Rose also lived a long life and died as a centenarian (in Belgium).

When the mayor Jean Granaud received the president Raymond Poincaré in Arles in 1913, they took a horsedrawn cart, but automobiles were gradually becoming less exotic: technology was driven forward by the needs of war, both for ground movements and for airplanes which required reliable engines.

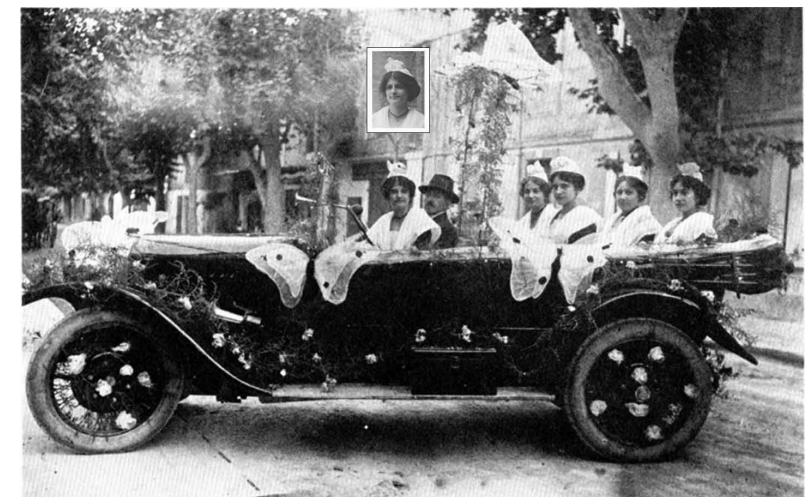
Around 1915 Dr. Louis Rey, being a friend of the owner of a Peugeot garage, Jean Roux, was pictured driving a car outside a military hospital, and there was an automobile crash involving the car dealer Joseph Galleron.

During the First World War Joseph Billot served in heavy artillery regiments in France and the Balcans. Then he was sent to Africa with the army of Levant.

In 1922 President Millerand took a tour in North Africa and on his return visited Arles where he was photographed being driven in a Peugeot by a young man who could be Joseph. By the order from 19 January 1923 (Yvonne's birthday) Billot moved to Morocco where his military dossier was reviewed by Marshal Lyautey.



President Millerand in Arles, 1922



Joseph Billot and his sister Nenette, April 1923

We can be much more certain about the driver of another Peugeot photographed at the Arlesian costume festival of 1923. Both cars were the *Torpedo Type 156*. Only 180 of them were built by Peugeot between 1921 and 1923. It was the largest and most luxurious model that the company made at that time and its price tag was similar to the amount Jeanne sold her childhood home for.

The young Lady seated at the front is Nenette Billot. This is verified by another picture apparently taken on the same day which shows Nenette with her niece Juliette Espeyte. They both signed the image on the back for Juliette's mother and Nenette's sister Therese Billot.



St. Trophime, April 1923, photo by Barral

The camera position exactly matches another well-known photo of Yvonne Calment in her distinguishing *Arlésienne* dress with a braided ribbon from the epoch of Charles X who was king of France from 1824 to 1830. That famous photo was incorrectly labelled in some journals and websites including Wikipedia (until 2019) as Jeanne.

Since Nenette was unmarried at that time, we can be sure that it was one of her brothers who she accompanied that day. Most likely, it was Joseph Billot. As a soldier, Joseph couldn't afford such a luxury, but his future father-in-law Fernand might have bought the car on the occasion of Yvonne's engagement. On the photo

it was decorated with flowers for Corso festival that Fernand helped to organize.

In 1925 Joseph took a course in automobile mechanics. In a recorded interview Mme Calment says that they used a car for Yvonne's wedding ceremony [7] (25 and 16 Feb 1993 16:09). After the wedding Joseph became a special staff member in the automotive equipment depot in Toul. Therefore, her claim that they had an automobile from the start of her marriage makes much more sense if she were Yvonne herself.

When asked if it was her husband who drove her daughter and grandson to their villa in Paradou (bought in 1933), she replied in the affirmative, but then corrected herself by referring to “*break*, à vis-à-vis”:

[7] (6 and 13 July 1994 05:12)	Translation
VL: Vous y alliez avec Yvonne et Frédéric?	VL: You went with Yvonne and with Frédéric?
MC: Oui.	MC: Yes.
VL: C'est là que vous faisiez de la bicyclette?	VL: Is that where you used to ride your bicycle?
MC: Oui.	MC: Yes.
France Cavalié: <whispering> Elle se souvient de quelle voiture elle y aller?	France Cavalié: <whispering> She remembers which car she went in?
VL: Vous y alliez en voiture là-bas?	VL: You used a car to drive there?
MC: Oui.	
VL: C'est votre mari	

qui conduisait?

MC: Oui... Ah, Eh...

C'était une voiture...

Ha, je dirais break, voiture quatre portes, un vis-à-vis. Y avait un cheval que ma mère appelait *Blondinet*.

VL: Vous y alliez à cheval alors?

MC: Oui, Thibaut, tout ça, ça s'est passé.

VL: Vous avez parlé de Thibaut?

MC: Thibaut, me rappelle plus qui c'est
VL: Vous venez d'en parler.

MC: Thibaut? Non ... pas ça, je vieillis, je vieillis, une voiture à 4 portes, une vis à vis et un cheval que ma mère avait baptisé *Blondinet*, c'est tout.

VL: C'était une voiture à cheval? Vous n'y alliez pas en automobile?

MC: Ah, non!

VL: Vous aviez quel âge à ce moment- là?

MC: Ah, ma foi, je

MC: Yes.

VL: Was your husband driving?

MC: Yes... Ah, Eh... It was a car. I'd say horse wagon, four door car, vis-à-vis. There was a horse that my mother called *Blondinet*.

VL: So, you went there on horse?

MC: Yes, *Thibaut*, all that has passed.

VL: You mentioned Thibaut?

MC: Thibaut, I can't remember who he is.

VL: You just mentioned him.

MC: Thibaut? No ... not that, I'm getting old, I'm getting old, a car with four doors, a *vis-à-vis* and a horse that my mother called *Blondinet*, that's all.

VL: It was a horse-drawn carriage? You didn't go by car?

MC: Oh no!

VL: How old were you at the time?

n'sais pas... une dizaine d'années. VL: Vous étiez mariée? MC: Bah, me rappelle plus, ah oui. VL: Puisque vous parlez de Yvonne et de Frédéric... C'est que vous étiez marié? MC: Bien sûr.	MC: Oh, well, I don't know... about ten years old. VL: You were married? MC: Well, I don't remember, ah, yes. VL: Since you mention Yvonne and Frédéric... Is it that you were married? MC: Of course.
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We believe that it was Joseph who drove Freddy and Yvonne to Paradou from Arles with his motorcar in the 1930s, but in the interview, Mme Calment decided that since Fernand did not drive a modern car, she should correct this to the horse-drawn carriage and then throw up the smokescreen of confusion.

Jeanne's mother Marguerite Gilles died in 1924, 9 years before they bought the villa in Paradou, so it was probably Jeanne who called the horse "*Blondinet*". Mme Calment mentioned Blondinet in another case of embarrassment related to the car, when they were discussing the horse races she attended with her father or husband [7] (07 Sep 1994 continued 05:20).

Conclusion: Madame Calment's claim that they had a motorcar from the start of her marriage does not fit well with the date of her wedding to Fernand, but it is likely to be true for Yvonne's marriage to Joseph Billot. Her testimonies about the car often contradict each

other and lead to confusions. We assign this evidence the likelihood ratio of 2 in favour of the switch.

ART LESSONS WITH FÉRIGOULE



Flowers signed by Jeanne Calment [30]



Menu destined for Yvonne with a rose signed J.C

Jeanne Calment was gifted in art and music at school, and she continued to take lessons while waiting to be married. Here is a transcription from the interview with Jean-Marie Robine:

[7] (26 Jun 1992 06:45)	Translation
MC: J'ai commencé à sept ans jusqu'à seize ans. A seize ans, après	MC: I started at the age of seven until I was sixteen. When

le brevet, j'ai reste chez mes parents à attendre le mariage. Pendant ce temps, je faisais tous les jours, la musique, les dessins, de la peinture, surtout de la peinture. J'étais très doué pour les arts.

JMR: Comment il s'appelait votre professeur de peinture?

MC: Ah attendez ah... er... bah... j'oublie ah! Férigoule!

JMR: Ah bon!

MC: Fer-i-goule, c'était Férigoule. Il était professeur à l'école de peinture à l'école d'Arles, l'école de garçons.

I was sixteen, after I graduated from high school, I stayed with my parents to wait for the wedding. During this time, I was doing music, drawing, painting, especially painting, every day. I was very gifted in the arts.

JMR: What was the name of your painting teacher?

MC: Oh, wait ah... er... well I forget ah!

Férigoule!

JMR: Oh well!

MC: Fer-i-goule, it was Férigoule. He was a teacher at the painting school in Arles, the boys' school.

Claude-André Férigoule was a sculptor born in Avignon in 1863. He moved to Arles in 1897 where he worked until his death in 1946. Mme Calment described him as a teacher at the boy's school. He was known as the director of *l'École des Beaux-Arts*. As a friend of Mistral, Férigoule participated in the foundation of the Museon Arlaten. The Indicateur Marseillais also lists him as the art teacher for the boy's college and the girl's Cours

Secondaires from 1898 to 1914, so he was Yvonne's art teacher at school [48].

A newspaper also mentions Joseph Billot as studying in the boys' school with Férigoule and taking an art prize in 1905. Joseph's military dossier listed his profession as a drawer at the railway company when he joined the army.

Férigoule could not have taught Jeanne at school because he lived in Avignon at that time, but he could have given her private lessons as an adult after marriage. In the above transcript Mme Calment is saying that Férigoule was her art teacher while she waited for marriage (1891-1896) but that was before he came to Arles.

In the validators books this inconsistency was masked by editing the quoted excerpt into three different sections a few pages apart.

First, she talks about studying music before marriage [2] p57, [3] p53. Two pages later she also mentions painting before her marriage and after [2] p30, [3] p55-56. In the French version of the book, she does more art as a young wife, and in English version she does none. Then after another two pages she names Férigoule as her art teacher [2] p32, [3] p57.

Once again, this book version is not an accurate record of her testimony on the audio tapes.

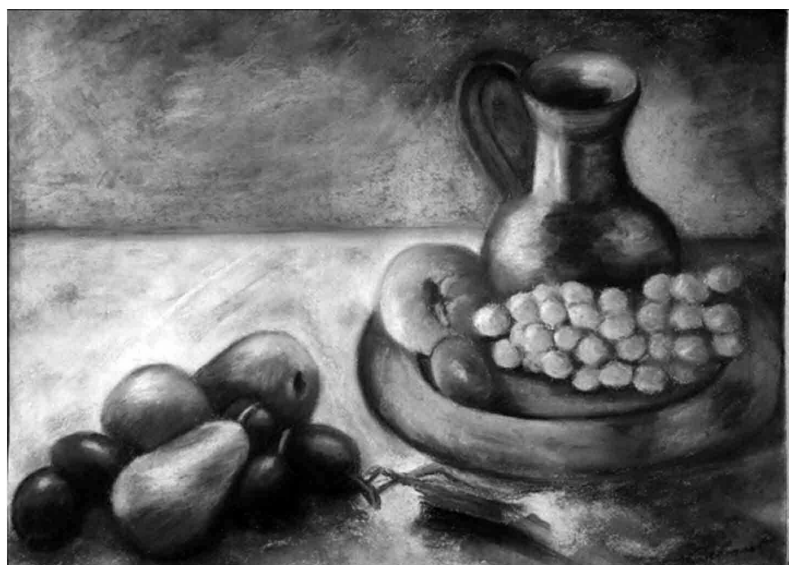
Mme Calment's recollection of Férigoule was described by her validators as another example of her prestigious memory. In fact, Férigoule is a famous artist and sculptor with a street named after him in Arles. Anyone

interested in the history of art in the region should know of his work. That would certainly include both Jeanne Calment and her daughter Yvonne.

Férigoule was Yvonne's and Joseph's art teacher at school, and it is very much possible that the family knew him well. He could have given Jeanne lessons after she married, but he could not teach her earlier as described by Mme Calment.

It seems probable that Jeanne did paint between school and marriage, and that she continued after marriage with Férigoule. The windows of Maison Calment served as an exposition of various paintings by local artists at that time.

Mme Calment spoke to validators of painting flowers and still-lives [7] (7 Sep 1994 34:00). We are aware of two oil paintings that appear to be by Jeanne. One shows flowers in a glass. Comparing the signature with examples from signed documents suggests that it was from 1900-1920. The second picture is a still-life of fruit. The signature is different. It could date from before her marriage.



Jeanne Calment must have had an art teacher before Férigoule. In 1886 Cours Secondaires de Jeunes Filles appointed Dieudonné to this position. He was the director of the painting school and remained the art teacher for the boys' and girls' schools until his death in 1897. Dieudonné's obituary said that he was known to all the schoolchildren, young and old, but Mme Calment failed to name him, and did not even indicate that there was another teacher before Férigoule.

Why not? If she was Yvonne, the answer is easy: she knew Férigoule but was not aware that he had arrived after Jeanne married. If Mme Calment was Jeanne, she must have just forgotten that she had another teacher, yet she was very keen and talented in art.

Did she ignore the teachers that were her earlier

influences? Speaking about the music, she easily recalled her first piano teacher Gachon, but couldn't remember the name of her later teacher from Marseilles.

If Jeanne Calment loved painting so much, why did she not continue all her life? One explanation would be that she died and Yvonne who assumed her identity was less interested in painting. Yvonne practiced art and music with her mother as a child, but she was less gifted and more interested in fashion, sport and adventure.

Conclusion: Mme Calment's knowledge of Férigoule fails to support her authenticity as claimed by her validators who had misrepresented her testimony in their books.

Her lack of memory of other art teachers is much easier to explain for Yvonne than for Jeanne.

Her claim that Férigoule taught her before marriage could not be correct since at that time she stayed in her parents' home in Arles while Férigoule lived in Avignon. We assign this evidence the likelihood ratio of 3 in favour of the switch.

THE PAINTED PARAVENT

Painted folding screens inspired by Japanese furniture were fashionable for the lounge during the late 19th and early 20th century. In France they called this a paravent, which literally means a windbreak.

Mme Calment told her validators that she had painted a folding five panel paravent with different types of flowers on each part. Later it was broken up into separate panels and given to friends.

Her description of this work is very confused over where and when it was painted. Was it done at her parents' house before Jeanne married, or after she married in the apartments above the shop? What does the answer tell us about whether Mme Calment was Jeanne or Yvonne?

The validators believed that the paravent was painted by Jeanne before marriage and that the testimony is that of Jeanne herself. Our view based on the evidence is that it was created after marriage and that the testimony is that of Yvonne pretending to be Jeanne. To evaluate the options, we start with transcripts from the audio recordings.

[7] (27 Nov 1992 33:30)	Translation
VL: C'était à l'époque des bals que vous faisiez de la peinture?	VL: It was at the time of the balls that you were painting?
MC: La peinture je faisais chez moi.	MC: I painted at home.
VL: Est-ce que c'était à la même époque?	VL: Was it at the same time?
MC: Je crois, j'étais jeune fille, jeune mariée, jeune mariée surtout, jeune mariée je faisais davantage. Je faisais de la belle peinture, gros tableaux, les grands panneaux de fleurs.	MC: I think so, I was a young girl, a young wife, a young wife especially, and as a young wife I did more. I was doing beautiful paintings, big paintings, big panels of flowers.
VL: C'était quoi ces grands panneaux de fleurs?	VL: What were those big flower panels?
MC: J'avais fait un paravent, un paravent de cinq feuilles, et chaque feuille avait les fleurs, les roses, les iris, les anémones.	MC: I had made a screen, a screen of five leaves, and each leaf had flowers, roses, irises, anemones.
VL: Les roses, les iris, et...	VL: The roses, the irises, and...
MC: C'est ça. Quand mon père a changé le salon, mon mari changeait le salon. Il a acheté un autre	MC: That's it. When my father changed the living room, my husband changed the living room. He bought another more modern one. So, the screen we

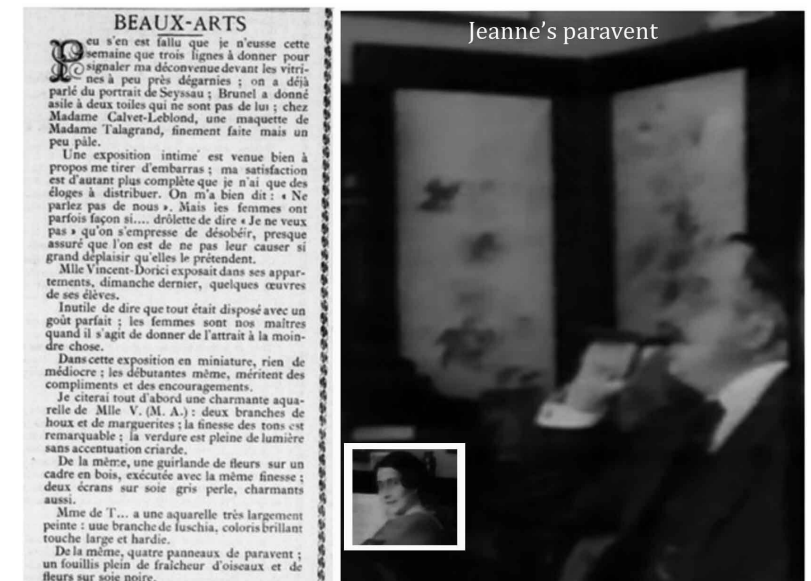
plus moderne. Alors, le paravent on l'a démonté et j'ai donné un panneau à chaque amie. Mon mari me dit: *"tu donnes, tu donnes et tu n'as pas de reconnaissance."*

took down and I gave a panel to each friend. My husband said to me: *"you give, you give, and you have no recognition."*

After this they continue to discuss the size of the paravent and how it was prepared for painting. The five types of flowers were roses, irises, anemones, tulips, and sunflowers.

This was the first time the paravent was mentioned on tape. Mme Calment is not clear about when or where it was created. She says she painted as a young girl, but then elaborates that she continued as a young wife, and even did more at that time. At this point she mentions the paravent.

We understand from this that it was after marriage that she worked on the paravent at their apartments over the shop. Then she mentions that her father changed the salon. This is corrected to be her husband, as on other occasions when she accidentally talked of her father when she meant to refer to Fernand.



Jeanne's paravent

Mlle Vincent Dorici teaches to paint the paravents in Avignon, 1889

The sculptor and art teacher Férigoule married Mlle Vincent-Dorici in Avignon before they moved to Arles in 1897. She was herself an art teacher and one of her specialities was making paravents painted with flowers and birds, much like the ones Mme Calment described.

Newspapers announced the drawing courses by Mme Férigoule in Autumn 1898 when Yvonne was still a baby. Mme Férigoule was also involved in the Red Cross, and it seems likely that it is she who taught Jeanne to paint the paravent between 1897 and 1904 when she died.

The interviews returned to the subject of the paravent in 1994:

[7] (25 May 1994 11:30)	Translation
VL: Et avec votre mari vous m'avez parlé d'une salle de bain que vous aviez décoré. Vous m'avez dit que vous aviez un effet comme les vitreux. MC: Oui. Oh, j'ai dessiné, j'ai fait la peinture. VL: Qu'est-ce que vous aviez fait comme peinture? MC: Un peu tout. J'ai fait un grand paravent, un grand paravent avec les branches, et chaque branche, c'était une gerbe de fleurs. VL: Vous alliez dans la campagne pour peindre? MC: Ça non, mon père n'aura pas voulu. Les femmes étaient entourées, jamais tranquille. VL: Votre père préférait surveiller un peu?	VL: And with your husband, you told me about a bathroom that you had decorated. You told me that you had a stained glass-like effect. MC: Yes. Oh, I drew, I did the painting. VL: What did you paint? MC: A little bit of everything. I made a big screen, a big screen with the sections, and each section was a spray of flowers. VL: Did you go to the countryside to paint? MC: No, my father wouldn't have wanted that. Women were always shrouded, never left in peace. VL: Did your father prefer to keep an eye on you? MC: Yes, he was wary of me.

MC: Oui, il se méfiait de moi.	
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They begin discussing what she did at the house with her husband. She says she created the paravent. Her father wouldn't allow her to paint in the country. Perhaps she was referring to her husband, but that was left uncorrected here.

In the recorded interviews they return to the subject of the paravent one more time:

[7] (7 Sep 1994 22:40)	Translation
MC: Je peindrais un grand paravent avec cinq feuilles fleuries. VL: Comment il était ce paravent? MC: Comme chez mes parents, taille énorme, très haut ... VL: ... et qu'est-ce que vous en aviez fait? MC: Mon père a changé son salon. Nous avons supprimé le paravent, qui était plus à la mode. Alors j'ai partagé les feuilles avec mes amies.	MC: I would paint a large screen with five flowering leaves. VL: How was this screen? MC: Like in my parents' house, huge size, very high ... VL: ... and what did you do with it? MC: My father changed his living room. We got rid of the folding screen, which was no longer fashionable. So, I shared the pieces with my friends.

In this final version, she again fails to correct “father” to “husband”. She does not mention her husband at all, so those who haven't heard her previous interviews would conclude that she made the paravent at her father's house. This is how her testimony was interpreted by the validators [2] p30, [3] p56.

In the English version of the book, they even change the transcript from

“As a young wife I did more” to

“I didn't do it any more as a young wife.”

Our interpretation is different. We think that Jeanne made the paravent after marriage, with Férigoule and his first wife as private teachers. Yvonne was too young to know the details of its origins, so as Mme Calment she adapted the story to fit what the validators wanted to hear.

She had to rely on her own memories about the paravent in her father's house. When Mme Calment refers to her father in the last interviews, she means Fernand. It is an uncorrected slip into talking as Yvonne. As additional support of our version of events, a paravent with at least two panels can be seen in a photograph of Jeanne playing the piano with Fernand watching.

Conclusion: The validators' interpretation that the

painting of the paravent took place at Jeanne's parents' house is at odds with her earlier recorded statements that she painted it in her husband's house. It also does not fit with Férigoule and his wife being the inspiration behind the work since they came to Arles later.

The contradictions and father/husband confusions can be resolved under the assumption that Mme Calment was Yvonne. We assign this evidence the likelihood ratio of 2 in favour of the switch.

FOX STOLE



Yvonne wearing a fox stole, 1929

Mme Calment described a fur stole that she was especially proud of. It was a silver fox complete with a head and tail [2] p95, [3] p101.

[7] (25 Feb 1992 12:40)	Translation
MC: Ah! Qui n'aime pas les fourrures! Je portais de grands Boas, ce qu'on appelait les boas, ..., de la fourrure qu'il y avait à l'époque. Le renard, c'était à la mode! J'en avais un très beau. Il était gris clair avec une belle queue et une tête... Le renard argenté.	MC: Ah, who doesn't like furs! I wore a big stole, what they called stoles, ..., fur that was available at the time. Foxes were in fashion! I had a very beautiful one. It was light grey with a beautiful tail and head... The silver fox.

Furs of this type worn around the neck became fashionable in the late 1920s. The silver-coloured fox came from Russia and would be a rare and expensive item in France.

A photograph of Yvonne Calment wearing just a fox stole at her brother-in-law's wedding in 1929 was provided by a relative. Since the photo is in black and white it is impossible to be certain of the colour of the fur, but it is a fine example that fits the description given. Yvonne, not Jeanne seems to be the only one

wearing the fox at the wedding of Nenette Billot in 1926.



Wedding of Nenette Billot and Pierre Flauder, June 1926

Yvonne cared about fashion, and this was a statement of her personal style and wealth. Like most young women she would use it to promote her own identity and would not be following the lead of her mother.

Given the popularity of the fox fur at that time we can't be sure that Jeanne didn't wear it. However, both Yvonne and Madame Calment seem to be obsessed with fashionable dress, jewellery, and furs. Jeanne, on the other hand, looked much humbler on her photos from the 1920s.

Conclusion: Mme Calment's love of fur aligns her with the fashion in the time of Yvonne rather than Jeanne. A picture of Yvonne wearing a fur as she described seems to confirm this. We assign this evidence the likelihood ratio of 1.2 in favour of the switch.

MME CALMENT AND JOSEPH BILLOT

After Yvonne's funeral, Joseph Billot lived the remaining 29 years of his life with Mme Calment who would be his mother-in-law if she were Jeanne.

If the identity switch took place, she would be his wife, Yvonne. Jeanne Calment was the grandmother and godmother of Freddy Billot, so it is not unusual that the family would live together to bring him up. Once Freddy became an adult and was married, Joseph no longer had any reason to live with Jeanne whose husband Fernand had died in 1942.

On Marie Jouve's death in 1947 her five children inherited the Billot family house at place du Sauvage 16, but in 1949 Joseph sold his share to Josette Flaude, daughter of his sister Nenette. The census returns for 1954 and 1961 show Jeanne Calment and Joseph Billot living together in the same apartment in Arles above the former Calment shop. Freddy lived with his wife Renée Taque in a neighboring flat.

Three pictures from the 1950-60s that belong to the Billot and Taque families were featured in French television documentaries *Sept à Huit* [42] and *Envoyé Spécial* [16] in 2019 showing Mme Calment and Joseph

relaxing together at that time in Paradou.



If Mme Calment was indeed Jeanne as declared, it seems odd that she lived in such close quarters with her son-in-law who could have easily moved to a different place to have his own space. If Mme Calment was really Yvonne, the wife of Joseph, then this arrangement is much easier to understand. On the audio tapes she was asked about her relationship with Joseph. The response was enthusiastic.

(15 and 22 Sep 1994 30:30)	Translation
VL: Votre gendre, le marie d'Yvonne, c'était un homme comment?	VL: Your son-in-law, Yvonne's husband, what kind of man was

MC: Merveilleux, caractère merveilleux, très compréhensive.
 VL: C'était un militaire?
 MC: Oui, un Colonel, et très intelligent, remarquable, c'est rare, il m'intéressait beaucoup.
 VL: Il était dans quel arme?
 ML: L'armée de terre.
 VL: Il était dans la cavalerie?
 ML: Oui plutôt, il était intelligent. Il était d'une grande intelligence.
 VL: Ça vous a frappé ça?
 ML: Ah Oui. Il m'intéressait beaucoup.
 VL: Il vous a appris beaucoup de choses?
 ML: Naturellement.
 VL: Il vivait chez vous?
 MC: Comment?
 VL: Vous viviez dans la même maison?
 MC: Oui, ensemble – Il avait son

he?
 MC: Wonderful, wonderful character, very understanding.
 VL: He was a military man?
 MC: Yes, a Colonel, and very intelligent, remarkable, that's rare, he was very interesting.
 VL: What army was he in?
 ML: The army.
 VL: He was in the cavalry?
 ML: Yes, rather, he was intelligent. He was very intelligent.
 VL: Did that impress you?
 ML: Oh yes, he was very interesting.
 VL: Did he teach you a lot of things?
 ML: Naturally.
 VL: He lived with you?
 MC: How?
 VL: You lived in the same house?
 MC: Yes, together – he had his flat, I had mine in the big house.

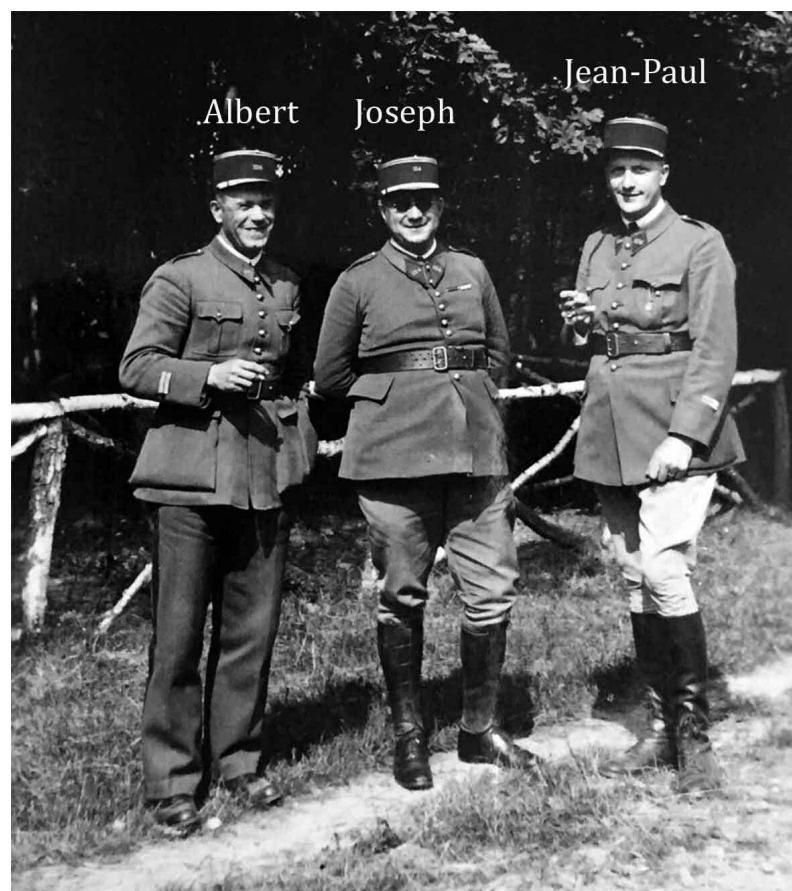
appartement, moi j'avais le mien dans la maison grande.
 VL: Et quand il était malade je crois c'est vous qui aviez le soignait.
 MC: Oui...

VL: And when he was sick, I think it was you who looked after him.
 MC: Yes...

Mme Calment said that she and Joseph Billot lived in separate apartments in the big house, but we know that for at least the last ten years of his life, that was not the case: one flat was occupied by Freddy and his wife, and another one by Mme Calment and Joseph.

Conclusion: Mme Calment and Joseph Billot assumed the relationship of mother-in-law and son-in-law, but pictures and living arrangements make them look more like a married couple, as would be expected if Mme Calment were Yvonne. We assign this evidence the likelihood ratio of 5 in favour of the switch.

HOSTILITIES



Billot brothers in the army

HITLER AND BISMARCK

One of the interviews started with a confusion related to Jeanne's age when Mme Calment visited her villa in Paradou with Yvonne and Freddy.

That could be only in 1933 after she bought the villa, with Yvonne being 35 years old and Jeanne 58. Nevertheless, Dr. Lèbre asks if she was about 40 years old at that time. Mme Calment agrees and then suddenly changes the subject of the conversation to Hitler's personality.

[7] (6 and 13 July 1994, 06:56)	Translation
VL: Puisque vous parlez de Yvonne et de Frédéric...	VL: Since you are talking about Yvonne and Frédéric...
MC: Oui.	MC: Yes.
VL: C'est que vous étiez marié?	VL: So, you were married?
MC: Bien sûr.	MC: Of course.
VL: Vous deviez avoir 40 ans à peu près?	VL: You must have been about 40 years old?
MC: Oui, environ.	MC: Yes, about.
VL: C'était après la	VL: This was after the

guerre de 14?

MC: Oui... Je m'étais qu'une personne âgée, nous rencontre l'époque d'Hitler... J'aimerais savoir ça.

VL: Qu'est-ce que vous aimeriez savoir d'Hitler?

MC: Son époque avant que je prenne, avant que l'on...

VL: Vous savez que Hitler a commencé à rechercher le pouvoir avant la guerre de 40?

MC: Ha ben oui. Ça m'étonne pas, ça m'étonne pas puisque Bismarck était à la guerre de 14, c'est ce qui l'a encouragé.

VL: Oui, oui. Justement, il a commencé vers les années 30.

MC: Il allait trop vite.

VL: Il a grimpé les échelons du pouvoir.

MC: Ah oui, oui. Un homme intelligent, vous avez entendu, mais prétentieux.

war of 14?

MC: I was just an old person; we are looking back at the time of Hitler... I'd like to know that.

VL: What would you like to know about Hitler?

MC: His time before I took, before we...

VL: Do you know that Hitler started to seek power before the war of 1940?

MC: Oh yes. It doesn't surprise me, it doesn't surprise me because Bismarck was in the war of 14, that's what encouraged him.

VL: Yes, yes. He started in the 1930s.

MC: He went too fast.

VL: He climbed the ladder of power.

MC: Oh yes, yes. An intelligent man, you heard, but pretentious.

VL: He was still a man; he was a very unusual

VL: C'était quand même un homme, c'était un être tout à fait hors du commun.

MC: Ah, oui! Très intelligent, très.

VL: Mais il a commis des atrocités.

MC: Ah, cela? J'ai jamais su ; il a payé.

VL: Il a voulu exterminer les Juifs.

MC: Haha! ça... C'est difficile. Terminer une religion, c'est difficile. Chacun la sienne.

Pourquoi? Laisser les gens tranquilles. Bah.

Les juifs étaient heureux, les argents qu'on leur laisse.

Chacun sa place.

VL: Et il leur reprochait d'avoir le pouvoir.

MC: Bah oui.

VL: C'est pour ça qu'il a voulu les exterminer.

MC: Il est mort en prison? Il est mort dans la prison?

VL: Non, il est mort dans un refuge. Il avait fait une sorte de

person.

MC: Ah, yes! Very intelligent, very.

VL: But he committed atrocities.

MC: Oh, that? I never knew; he paid.

VL: He wanted to exterminate the Jews.

MC: Ha-ha! It's difficult. To finish a religion is difficult. Everyone has his own. Why? Leave people alone. The Jews were happy with their money. Each to his own.

VL: And he accused them of being in power.

MC: Well yes.

VL: That's why he wanted to exterminate them.

MC: He died in prison? Did he die in prison?

VL: No, he died in a refuge. He had made a hideout, fortified. And when he saw that he was going to be caught, he killed himself.

repère, fortifié.

Et quand il a vu qu'il allait être pris, il s'est suicidé.

MC: Ça Je sais. Avec Eva(?) en prison?

VL: Non, il s'est suicidé dans son refuge.

Avec sa maitresse qui s'appelait Eva Braun.

VL: Est-ce que vous avez entendu parler des camps de concentration?

MC: Un peu, vaguement.

VL: C'était après la guerre de 40 qu'on a découvert ça. Vous avez vu des photos de déportés?

MC: Oui. Oui.

VL: Ils avaient des costumes comme les bagnards.

MC: Haha!

VL: Vous vous rappelez? Ils étaient très maigres, on les faisait mourir de faim. Est-ce que vous en rappelez?

MC: Ah oui. Ha bon.

MC: I know that. With Eva in prison?

VL: No, he killed himself in his refuge. With his mistress called Eva Braun.

VL: Did you hear about the concentration camps?

MC: A little, vaguely.

VL: It was after the war of 1940 that we discovered that. Did you see photos of deportees?

MC: Yes. Yes.

VL: They had costumes like the convicts.

MC: Ha-ha!

VL: Do you remember? They were very skinny; they were starved to death. Do you remember that?

MC: Oh yes. Well. That's all gone now, the modern world has taken its place.

VL: What are you interested in about Hitler?

Tout ça, ça a passé il y a le moderne qui a pris la place.

VL: Qu'est-ce que c'est quoi vous intéresse sur Hitler?

MC: Tout ce qu'il a fait. Sa façon de braver... tout sur la guerre...

VL: Vous savez qui s'était annexé plusieurs pays. Il avait envahi l'Autriche.

MC: Ah, déjà?

VL: C'est ce qu'on appelait l'Anschluss.

MC: Ah, oui.

VL: Puis il envahit la Pologne.

MC: Ha. Il avait faim, haha, il avait un appétit. C'était quelqu'un d'intelligent.

VL: Et ensuite il est venu envahir la France.

MC: Il voulait tout, il voulait tout.

VL: Il a envahi la France à moitié. Puis, en 42, il a envahi l'autre moitié. Ensuite,

MC: Everything he did. His way of fighting... everything about the war...

VL: You know he had annexed several countries. He invaded Austria.

MC: Oh, already?

VL: That was called the Anschluss.

MC: Oh, yes.

VL: Then he invaded Poland.

MC: Hah. He was hungry, ha-ha, he had an appetite. He was a smart man.

VL: And then he came to invade France.

MC: He wanted everything.

VL: He invaded France halfway. Then, in 42, he invaded the other half. Then he allied himself with Italy, with Mussolini.

MC: Well, yes, that's true, Ah.

VL: How did you find Mussolini?

il s'est allié avec l'Italie, avec Mussolini.
 MC: Bah oui, ça c'est vrai, Ah...
 VL: Comment vous le trouviez Mussolini?
 MC: Prétentieux, un prétentieux, orgueilleux.
 VL: C'est vrai, il bombait toujours le torse. Il relevait le menton.
 MC: Il était bien bâti sans doute.
 VL: Et ensuite Hitler s'est allié avec le Japon. Et ils ont attaqué l'Amérique.
 MC: Ah. Oh...
 VL: À part Hitler, qu'est-ce que vous voulez que je vous raconte encore?
 MC: C'est tout.
 VL: Ça vous faisait plaisir de savoir un peu la vie d'Hitler.
 MC: Ouais, on est toujours suivi de sa vie. Tout m'intéresse, mauvais ou bon tout m'intéresse.

MC: Pretentious, a pretentious, proud man.
 VL: That's true, he always puffed up his chest. He would lift his chin.
 MC: He was well built, I guess.
 VL: And then Hitler allied himself with Japan. And they attacked America.
 MC: Ah. Hoh...
 VL: Besides Hitler, what else do you want me to tell you?
 MC: That's it.
 VL: You were happy to know a bit about Hitler's life.
 MC: Yeah, still following his life. I'm interested in everything, bad or good, I'm interested in everything.
 VL: It's true that he was a bad man, but he was an interesting man.
 MC: Smart, smart like that. He paid dearly. Did he kill himself?

VL: C'est vrai que c'était un homme mauvais, mais qui était intéressant.
 MC: Intelligent, intelligent à ce genre. Il a payé cher. Il s'est tué?
 VL: Qu'est que vous dites?
 MC: Il s'est tué avec un revolver?
 VL: Oui, on l'a tué avec un revolver.
 MC: Ah, s'est pas tué donc?
 VL: Il n'a pas eu le courage. Il a fallu que quelqu'un le fasse à sa place.
 MC: Ah! J'ai cru le contraire. J'ai cru le contraire. Oh!
 VL: Et puis on a essayé de faire brûler son corps.
 MC: Ah oui?
 VL: On l'a arrosé d'essence et on l'a fait brûler.
 MC: Ah. C'est un roman pas ordinaire. Et Bismarck? Qu'est-ce

VL: What are you saying?
 MC: He killed himself with a gun?
 VL: Yes, he was killed with a gun.
 MC: Oh, he didn't kill himself, did he?
 VL: He didn't have the courage. Someone else had to do it for him.
 MC: Ah! I thought the opposite. I thought the opposite. Hoh!
 VL: And then they tried to burn his body.
 MC: Oh, yes?
 VL: They doused him with petrol and burned him.
 MC: Ah. That's a very unusual novel. And Bismarck? What happened to him?
 VL: Do you have memories of Bismarck?
 MC: A little, yes.
 VL: That was during the war of 14?
 MC: Yes, he took Alsace and Lorraine. Now

qu'il est devenu?	Alsace and Lorraine are French again... aren't they?
VL: Vous avez des souvenirs de Bismarck?	VL: What was Bismarck like?
MC: Un peu, oui.	MC: Ah... whatever...
VL: C'était pendant la guerre de 14 ça?	
MC: Oui il avait pris L'Alsace et la Lorraine. Maintenant, L'Alsace et la Lorraine sont redevenues françaises... n'est-ce pas?	
VL: Il était comment, Bismarck?	
MC: Ah... Quelconque...	

Dr. Lèbre gives Mme Calment some details of Hitler's life and she says that he always interested her as an unusual and smart man, even if he was a bad person. She thought that Bismarck (1815-1898) was in charge during the WWI and encouraged Hitler's hungry imperialism by taking Alsace-Lorraine.

When talking about Yvonne and Joseph Billot, Mme Calment often calls them very intelligent. Curiously, she uses the same description for Adolf Hitler, whose "appetite" amused her. It could be that her admiration

for Hitler's military talents and the connection with Bismarck were adopted (with some chronological mistakes) from talks with Joseph.

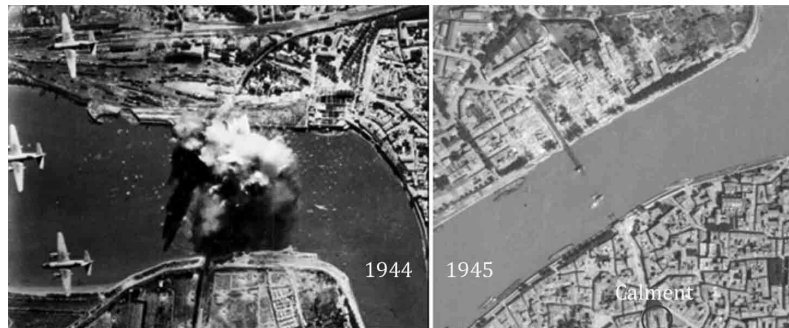
Mme Calment's reaction to the question about the concentration camps was rather unexpected. One of the famous victims of these camps was the former mayor of Arles (in 1936-1939), Joseph Imbert. In 1927 Jeanne was pictured with him at the Arles Hospital. Imbert didn't follow Joseph's calls to collaborate and joined the resistance. When the Germans occupied the town, he escaped from the hospital in women's clothing and left Arles under a false identity. He was captured in 1943 and died in Mauthausen two years later.

After the capitulation of France in 1940 the regional newspapers were very pro-Vichy. During the occupation they explained to the readers how bad the Jews and the communists were. Mme Calment's negative attitude towards communists could originate from these times.

She did not seem to have any links with the resistance and had little concern about the alleged concentration camps and other atrocities of war.

Overall, this interview doesn't tell us much about the identity switch, but it provides an important context for the research of her life during WWII.

BOMBARDMENT OF ARLES



During the build-up to the liberation from German occupation, Arles was bombed by the allies flying American Martin B26 Marauder bombers. They carried out their raids in the summer of 1944 to destroy infrastructure and hinder the German retreat. The bombing inflicted damage to buildings and a considerable number of civilian deaths.

The bridge over the Rhône to Trinquetaille, which had already been mined by retreating Germans, was destroyed from the air on 15th August 1944. That was just 100m from the former Calment shop where the family were still based. Van Gogh's yellow house and the railway bridge were other casualties of the bombings but the most damage was done at the other side of the river.

Pierre Maxence has shared his memories of that time:

"During the bombings, we went to take shelter in the ancient Theatre, then in the Arena. My father, who had fought in the First World War, was afraid that if a bomb fell on the Arena, all those who were underneath would be buried... Then, when he saw that a bomb had only succeeded in breaking two arches, we too went to the 'croustoun' of the Arena.

For the Liberation of Arles, we stayed there four days and four nights. Of the family I was the only one to go out to make bread at the Bouchara bakery (place Paul Doumer). Then I went back to the Arena to sleep. For three months we had to heat the oven with wood and knead by hand." [49]

When Mme Calment was asked in 1992 about the bombardment, she appeared confused about during which war it took place (27 Nov 1992 41:10). She referred to the war of 1914 and even sang a patriotic song about the French defeat in the war of 1870.

(27 Nov 1992 44:35)	Translation
MC: Vous avez pu germaniser la plaine Mais, malgré vous, nous resterons Français Vous avez pris l'Alsace et la Lorraine Mais notre cœur, vous ne l'aurez jamais!	MC: You were able to Germanise the plain But despite of you, we will remain French You took Alsace and Lorraine But you will never have our heart!

Dr. Lèbre asked about the American landing but she changed the subject and said that she had a good life, her husband was a good hunter and they hunted together. Then she said that they had a refuge in their farm Rouiron in Saint-Martin-de-Crau during the war.

This was confirmed by Jean-François Reymond, son of the buyers of the farm, who said that she lived there very little, only on holidays and during the 1940's war, to be in an area with less risk of bombing.

In 1994 Dr. Lèbre returned to the subject:

[7] (25 May 1994 36:42)	Translation
VL: Est-ce que vous rappelez les bombardements d'Arles?	VL: Do you remember the bombing of Arles?
MC: Ah, oui! Ça on ne peut pas l'oublier.	MC: Oh, yes, one cannot forget that.
VL: Où est-ce que vous étiez?	VL: Where were you?
MC: Chez moi, dans ma maison.	MC: At home, in my house.
VL: Et vous n'avez pas bougé quand le pont de Trinquetaille a été bombardé?	VL: And you didn't move when the bridge at Trinquetaille was bombed?
MC: Non!	MC: No!
VL: Vous étiez près de là où tombaient les bombes...	VL: You were near where the bombs fell...
	MC: Well, it must be said that I have a character, I'm not easily

MC: Ben, il faut dit que j'ai un caractère, j'ai pas peur facilement, on me le reproche assez. Un jour mon mari m'a dit:

"Tu n'as pas assez peur, entre celles qui ont peur de tout et tu qui n'ont peur de rien, tu..."

Alors je lui ai dit:

"Ça te gêne? Ça sera malheureusement sans nouvelles. Alors écoute, je ne veux pas nuire à ton bonheur et je te rends ta liberté."

Mais il a poussé un cri: "Qu'est-ce que tu dis? Tout mais pas ça! Je t'aime!" ... J'ai un... caractère...

VL: Pendant la guerre, Monsieur Calment était avec vous alors?

MC: Oui.

VL: Il est mort après en 1952, à peu près?

frightened, I've been reproached enough. One day my husband told me:

"You're not afraid enough, among those who are afraid of everything, and you who are afraid of nothing, you..."

So, I told him: "Does that bother you?"

Unfortunately, I won't be hearing from you again. So, listen, I don't want to interfere with your happiness, and I'll give you back your freedom".

But he shouted:

"What are you saying? Anything but that! I love you!" ...

I have a... character...

VL: During the war, Monsieur Calment was with you then?

MC: Yes.

VL: He died afterwards in 1952, approximately?

MC: Ah, don't

MC: Ah, rappelle pas. VL: Vous ne vous rappelez pas à quelle date est mort votre mari? MC: Ah, j'oublie. VL: Il avait quel âge? MC: Rappelle plus. Je ne sais pas. En rappelle plus. J'étais encore assez jeune.	remember. VL: You don't remember when did your husband die? MC: Ah, I forget. VL: How old was he? MC: Don't remember. I don't know. Don't remember. I was still quite young.
--	--

A couple of weeks later Mme Calment would recall that her father used to say that she did not have enough fear (6 and 13 July 1994 20:05) but here she told a story of a family quarrel with her husband on the same subject. She was manipulative: she threatened her father with suicide and her husband with divorce if they were not happy with her lack of fear.

Dr. Lèbre asked if her husband was therefore with her during the war and she said yes, but after the follow-up questions she was confused and could not remember when he died.

When she spoke of being with her husband during the bombardment, she could not mean Fernand who had in fact died on October 2, 1942, before the German occupation of Arles and two years prior to their retreat. Could she be referring to Joseph Billot, the husband of Yvonne?

On 18th June 1940 chief of squadron Joseph Billot

installed his batteries in the wood close to the Longchamps fort of the Maginot line, defended by the lieutenant Henri Martin. Billot ordered Martin to

"Fire urgently with the turrets on the bridges and outlets of Epinal." They did it without possible observation of their targets and probably hitting civilians and friendly troops. [50]

On 19th June Joseph was known to visit the brave defenders of the neighbouring town Châtel-sur-Moselle and was told by captain de Bellerive that they were holding there [50].

Billot's obituary from 1963 stated that on 21st June 1940 he had maintained his soldiers encircled under the enemy fire until receiving an order to evacuate which he had done only after destroying his material.

Next day, when the armistice between France and Germany was signed, Joseph was decorated with the military cross while the defenders of the Longchamps fort surrendered on honourable conditions. Henri Martin was released in August 1941 and joined the allied forces.

It was not easy to find out what happened to Joseph after his evacuation from Longchamps and getting the decoration on the last day before the armistice. In contrast to those of Henri Martin or Joseph's brother Jean Paul (1897-1986), his military file does not mention captivity, nor does his detailed obituary from 1963.

Unlike the name of Jean Paul Billot, Joseph is not present

in the official list of French prisoners of the war [51] and in the list of prisoners from Arles combined by the local historians [52].

It is possible that after the armistice Joseph Billot returned home and was there when Marshal Pétain, the head of Vichy state, visited Arles in December 1940.



There are good chances that later Joseph continued his service in the army and was sent to the French colonies of Syria and Lebanon because he had been serving in the army of the Levant in 1921-1922. A June 1941 picture of general Dentz in Beirut includes an unnamed colonel who strongly resembles Joseph.



We know that Billot was a commandant during WWII. He only became a lieutenant-colonel on his retirement. A commandant should have four stripes on his sleeves, not the five seen in the picture. It is possible that he was temporarily an acting colonel during the Syria campaign because of his prior experience there. Before Joseph retired in 1946, he was still a commandant in the Miramas ammunition depot but later he was recognized as a colonel.

The forces under the command of Dentz allowed German bombers to refuel in Syria. This brought the wrath of the allies including the Free French under the command of General de Gaulle. They attacked and Dentz was defeated. The capitulation was signed by General De Verdillac on July 12th, 1941. According to the

July 14th issue of the London-based French newspaper "France",

"When the general leaned over the table to give his signature, a short circuit occurred, and the room was plunged into darkness. And so, in a diffuse light coming from the headlights of the cars parked around and in the direct beam of the projector of a motorbike that a liaison officer had pushed to the middle of the room, the Dentz delegate finally affixed his initials at the bottom of the document that put an end to more than four weeks of fratricidal struggle in Syria."

About 40000 Vichy personnel were given the option of joining the Free French or returning home to Vichy France. Contrary to the hopes of De Gaulle, the vast majority chose the latter option and eight convoys including three hospital ships sailed for France in August and September 1941 [53].

General Dentz and his senior officers, including about 30 majors and colonels, were detained in Jerusalem until the release of the British prisoners [53] and arrived in Marseilles on 10th September. It is possible that Joseph Billot was one of them, but we were unable to obtain the list of these captives.

On 18th September Dentz had a long and warm meeting with general Hutzinger (one of the signatories of the anti-Semitic law on the status of Jews). They discussed the organisation of rehabilitation of the returning soldiers in various French resorts, including Uriage [54].



WWII newspaper articles on Joseph Billot

Coincidentally, two days later while the last convoy was approaching Marseilles and newspapers praised the heroism of returning soldiers which *"has fascinated the whole world"*, commandant Billot appeared there and became an assistant to General Baudouin of the Red Cross in the *Social Services for the Army* to help soldiers arriving from Syria. This organisation was created three months earlier by the general Hutzinger. Joseph's obituary indicates a connection with the organisation of soldiers with lung injuries. This could be related to his work helping soldiers wounded in Levant.

General Dentz arrived in triumph and settled in Arles,

which had been declared the capital of Vichy Syria. Admiral Darlan presented him with Grand Officer of the Legion of Honour on 8th October. Joseph Billot made a public appearance in the local club on 1st November:

"A touching party at the Cercle de l'Avenir. The members of the Cercle de l'Avenir had the happy idea of celebrating the return of the first prisoner belonging to the Cercle, Commandant Billot. So, on November 1st, at 6 p.m., all the members of the Circle were gathered around an aperitif of honour.

Dr. Revol, president, took the floor to tell Major Billot the pleasure that he and all the members of the Cercle had experienced in seeing him in Arles after such a long and painful absence. Major Billot, very moved, thanked all those who had participated in this intimate celebration and spoke of his memories of being a prisoner.

He spoke of how long the wait is for those who are far from their little homeland and how eagerly they wish to see this captivity come to an end. He asked everyone to think of their pain and suffering and to collaborate with Marshal Pétain. It is from this loyal collaboration that our prisoners expect their release.

And he stigmatized all those who did not understand and listened to foreign voices. They do not understand, these unfortunate people, that the prisoners pay for their mistakes. And

Commandant Billot ended by asking everyone to think about this and to help in their prompt release.

Let us congratulate the Cercle de l'Avenir for having had the happy idea of celebrating the return of our prisoners and for the elegant gesture which ended this evening: a collection which brought in 300 francs for our prisoners."

From this report we know that Joseph was a prisoner, but it is not specified when and if that was in Germany or in Syria. His recent activity in Marseilles was also not mentioned. Jean Paul Billot was a prisoner in Germany (released on August 16th, 1941 and demobilized in Fontenay-sous-Bois). His brother Joseph would indeed know how long the wait is for those who are far from their little homeland and how eagerly they wish to see this captivity come to an end.

It is understandable why Joseph wouldn't want to talk about the failed Syria campaign. Vichy was well supported in Arles, the hometown of Pétain's wife, but the collaboration with Germans in Syria might be problematical. Dentz could have ordered his officers to keep silent about it. Despite praise by the French press of that time and the crowds admiring general Dentz in the streets, there was not much to boast about: French soldiers fought against each other there and France had lost its colonies forever.

The resistance was already there including people such as the former Mayor Joseph Imbert with whom both Joseph and Fernand had organized a charity bridge

tournament to benefit anti-tuberculosis stamps in the same club "Cercle d'Avenir". Joseph understood that their actions could be later interpreted as collaboration or even treason if the Free French and allies eventually prevail over Hitler and De Gaulle replaces Pétain. From Mme Calment's testimony we know that both Yvonne and Joseph were very clever.

Joseph's military records from the 1940 to 1944 are not yet available so we can only know his whereabouts at certain times. He was promoted to an officer of the Legion of Honour in August 1942 when general Dentz was president of the Commission for the granting of awards for the 1939-1940 war. The congratulating report in "*La croix du Provence*" was published only in October, two days after Fernand's death. It said that since his return from captivity Joseph was commanding a material centre for Northern Africa in Marseilles, but we know that in September 1941 he was involved in helping the families of soldiers arriving from Syria.

In May 1943, ten years after Mme Calment had bought the villa in Paradou, Joseph met the notary David in Arles to arrange the sale of half of the farm Rouiron from Jeanne's brother François to Freddy. The document listed his address at the intersection of rue Gambetta and rue St. Estève, that is, Maison Calment. In March 1944, La Croix de Provence reported that Joseph had become a manager of the Arles branch of the Savings Bank in place of the deceased dentist Meirieu.

Thus, after Fernand died in October 1942 and the South of France was occupied by Germans in November, Joseph was living in Arles or in St. Martin du Crau with

Freddy and Mme Calment. According to Cavalié, their villa in Paradou was used by the Germans during the occupation [9].

When allies started to bomb Arles, Joseph would understand that it was not safe in town, especially near the bridge: four years previously, it was he who had ordered the defenders of Longchamps to destroy the bridge in the suburb of Epinal. He could persuade Mme Calment to move to the Rouiron farm during the summer of 1944. Cavalié wrote that Jeanne and Freddy hid in the Arles Arena [9], but that could easily be a fiction.

Billot's military file resumes after the Liberation and gives his address at Place du Sauvage 16. However, the evidence suggests that he never lived there after his marriage in 1926. 1931 and 1936 censuses list him in Maison Calment and so do multiple documents from 1942-1949. Paul Billot's children inherited the family house at Sauvage 16, but in 1949 Joseph sold his share to his niece Josette Flauder.

We therefore conclude that when Mme Calment spoke of her husband being with her at that time, she was speaking as Yvonne about Joseph.

In October 1944, after the fall of Pétain, Joseph was given command of the American Miramas ammunition depot and thus finally joined the Allies as did much of the former Vichy army.

In 1945 Dentz was convicted of treason for the Syria campaign and died in prison. In 1947, at the age of 56, Joseph Billot was already retired. He had a provisional title of Officer of the Legion of Honour given by

ministerial decree from August 1942 but not the official booklet which he asked for twice, in 1947 and 1949, for the payment of his pension and to formalize his title. The French state seems to have been hesitating, possibly because of his participation in the Syria campaign, but in 1949 Joseph's demands were finally fulfilled.

It was said that Mme Calment was very interested in the news about the Gulf War when she was in the nursing home. She preserved some sympathies with the Vichy government and considered Marshal Pétain to have been misunderstood and wrongly judged [55] p11. She told Le Monde that during the war Germans slept in her room, without damaging anything.

In the published interviews with her doctor, Mme Calment hadn't provided such details. She said that she met Germans but

"She wasn't going to jump on their necks." [7] (25 May 1994 41:25)

There was a rumour that during the WWII Mme Calment threw the milk left in her glass into the sink, while other people had ration coupons. Then, as she said,

"After the war it was over, the Belle Epoque would never return." [24]

Conclusion: Mme Calment's recollections of being with her husband during the hostilities of WWII do not

make sense if she was Jeanne because Fernand had died earlier.

As Yvonne speaking of her husband Joseph, they could be correct. We assign this evidence the likelihood ratio of 2 in favour of the switch.

SPIES AND SPA

Just before the outbreak of the Great War, Jeanne, Fernand, and Yvonne were listed on vacation at Hotel du Midi in their favourite resort – Uriages-Bains, famous for the rejuvenating properties of its thermal water.

Mme Calment had a rather vague knowledge of the history of wars. She suggested that Bismarck (1815-1898) was in charge during WWI.

In the following discussion she admitted that she was young at the time and heard about it from her parents – a slip consistent with her being Yvonne. Then her doctor reminded her that Jeanne was 39 years old in 1914 and that she told him earlier that her husband was mobilized during that war.

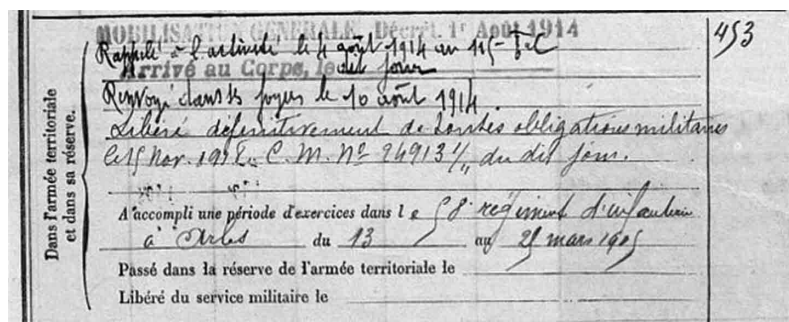
“Ha-ha, you know better than me” – laughed Mme Calment.

[7] (6 and 13 July 1994, 15:27)	Translation
VL: Vous avez des souvenirs de la guerre de 14?	VL: Do you have any memories of the war of 14?
MC: Vaguement ...assez	MC: Vaguely ...quite

jeune oui, j'en entendais parler des parents.	young yes, I heard about it from my parents.
VL: A la guerre de 14, vous aviez 39 ans.	VL: In the war of 14, you were 39 years old.
MC: Haha, vous saviez bien que moi.	MC: Ha-ha, you know better than me.
VL: Vous étiez mariés à la guerre de 14.	VL: You were married in the war of 14.
MC: Bien sûr!	MC: Of course!
VL: Vous m'avez dit que votre mari avait été mobilisé sur Arles.	VL: You told me that your husband had been mobilized in Arles.
MC: Oui.	MC: Yes.
VL: Il était affecté à la caserne d'Arles.	VL: He was assigned to the barracks in Arles.

Fernand Calment's military record shows that he was exempted from military service being the single son of a widow. When WWI began in August 1914, the French mobilised all able-bodied men up to the age of 45.

Being three months short of his 46th birthday, Fernand was not excluded. He was conscripted but not sent to the front. After a few days he returned home and was finally freed of all military obligations at the end of the war four years later.



Fernand's military record showing his mobilisation in 1914

Military record	Translation
Rappelé à l'activité le 4 août 1914. Renvoyé dans le foyer le 10 août 1914. Libéré définitivement de toutes obligations militaires le 15 Nov. 1918.	Recalled to duty on August 4, 1914. Sent home on August 10, 1914. Definitively discharged from all military obligations on 15 Nov. 1918.

We know that the Calments were involved in helping the army. Maison Calment exposed a fragment of a plaster statue of a wounded soldier receiving the devoted care of a nurse. This statue was created by a Parisian artist Louis Chazot while he was treated in the Red Cross hospital in Arles, with one of its locations being Yvonne's former school.

A local historian René Garagnon had interviewed Mme Calment in 1977 at her home and later recalled the

details in a letter to Lamy:

"...First of all, there was Germanophobia. From the beginning of the conflict, the Arlesians saw spies everywhere. If, by misfortune, you are blond, tall, and well-built, you should not walk in the streets of Arles. Some are mistreated. Others are almost lynched. There is nothing German about them.

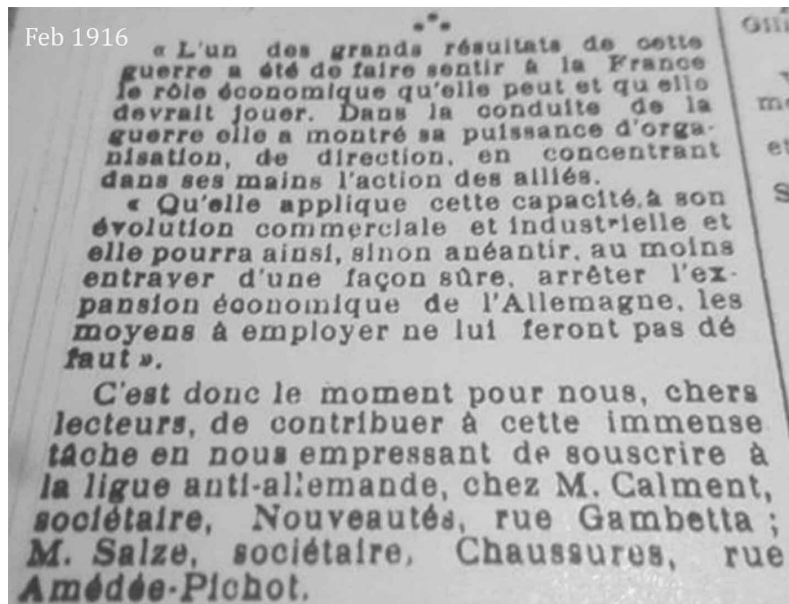
My great-uncle Félix Serret who ran the Arles weekly newspaper 'L'Homme de bronze', castigated these foolish actions in one of his articles. 'If the desire to eat Prussian food prevents them from sleeping, they only have to join the front.'

The German property located in the commune of Arles was confiscated. For example, the mas du Roure, which belonged to His Imperial Highness the Prince of Löwenstein was taken. In 1916, Jeanne Calment's father had created an Arles section of the 'Anti-German League' whose aim was to boycott all German products." [1]

Lecturers at the girl's college warned the students about the German spies who had penetrated the society, sometimes masquerading as tourists. In 1916 a history teacher went back to the times of Caesar and Augustus, "two founders of Arles" to underline how

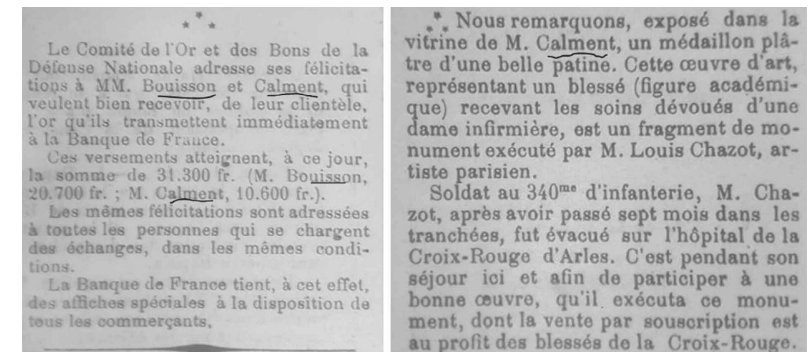
"The hereditary enemy has never ceased to 'hate us basely' since ever." [56]

This suspicious attitude towards foreigners has deep roots. A local newspaper reported a case of the capture of alleged German spies in Arles in 1889. A biographer later claimed that Van Gogh was also considered a German spy when he lived in the town [28].



Feb 1916
Anti-German League at Fernand Calment's store

Several newspaper articles from 1916 invited Arlesians to join the Anti-German league with Fernand Calment, so the information from Garagnon was probably a result of the earliest recorded father/husband confusions from Mme Calment, made 15 years before her first talks to the validators.



Gold to finance the war

War art, Maison Calment

The boycott of the German goods was not the only way Maison Calment participated in the economic war. In 1915 it collected 10,600 francs (around \$100,000 in modern money) of gold from Arlesians to help finance the French war effort. The rival Bouisson collected twice as much.

Sixteen years after Garagnon, Dr. Lèbre asked Mme Calment what she remembered of WWI. She recalled that Fernand was mobilised in the town. It was an unhappy time with some deprivations. No "gourmandise" but they could still get meat. They lived in the spirit of war [7] (13 Feb 1993 02:15) (25 May 1994 33:00).

One thing that Mme Calment did not recall was a stay at the Grand Hotel des Baigneurs in Brides-les-Bains, Savoie, for four weeks of August 1916. Her friend M. Granaud was also there.

August 1916

Foreigners in Brides les Bain

11. - 21^e Année

10 Continues le Numéro

27 AOÛT 1916

LA SAVOIE THERMALE

LISTE OFFICIELLE DES ÉTRANGERS de Brides, Salins, Moutiers et les Environs

Abréger tout ce qui concerne le journal à l'Empire, Avenue de Salins, Moutiers (Savoie)

BRIDES-LES-BAINS

Eaux thermales à 39°
hydrogène-sulfure, chlorures sodiques
magnésium, sulfures
A. GARNIER, Dr. J. B. HENRI

Liste Officielle des Étrangers

RENSEIGNEMENTS

adresses aux voyageurs

MÉDECINS CONSULTANTS

THOMAS, à Brides

Dr. LAMBERT, à Brides, ancien inspecteur

Dr. FORT.

Médecins consultants à Brides

actualités nouvelles

Dr. LAMBERT, à Brides

Dr. LAMBERT, à Brides, ancien inspecteur

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actualités nouvelles

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Dr. LAMBERT, à Brides, ancien inspecteur

Dr. FORT.

Médecins consultants à Brides

actualités nouvelles

Dr. LAMBERT, à Brides

Dr. LAMBERT, à Brides, ancien inspecteur

Grand Hôtel des Baigneurs

Mme Demaut,	Nice
Mlle Lacuffer,	Paris
Mme Ruddoch	Nice
Marquis et Marquise Sforza Brivio et fils,	Nice
M., Mme Déplanche, et Mlle,	Thoissey
M. et Mme Wehrung, 4 femme de chambre,	Paris
Mme et Mlle Dulac,	Grenoble
Mme, Mlle Frobert-Lescuelli,	Clermont-Ferrand
M. Lœuffer,	Anney
Mme Jacquot,	Chaumont
Mme Giguet,	
M. et Mlle Raymond, 4 per- sonnes, St-Chamond	
Mme et Mlle Voissimbert,	Paris
Mme et Mlle Ravel,	Nice
Mme Calment,	Arles
M. Rolland,	Villefranche
M. et Mme Lévy,	Dijon
Mme Humbert,	Taninges
Mme Calcuideau,	Paris
Mme Bouis,	id.
M. Mallet,	Lyon
M., Mme Chalvin et famille, 4 pers.,	id.
M. Granaud,	Arles
Mme Tigand,	Lyon
M. et Mme Renault,	Nice
M. Romau,	Turin

BRIDES

Grand Hôtel des Baigneurs

Calment's biographers wanted to know more about her childhood and youth. They asked about her friends, but all the efforts were in vain. Had she lost her memories because of old age?

[7] (26 June 1992 00:19)	Translation
JMR: Et est-ce que vous vous souveniez des copines qui marchait avec vous?	JMR: And do you remember the friends who walked with you?
MC: Vaguement. Bah! C'est vieux ça. Après plusieurs années c'est difficile.	MC: Vaguely. Well, that's old. After many years it's hard.
JMR: Est-ce que vous souvenez du nom de vos professeurs?	JMR: Do you remember the names of your teachers?
MC: Non, non, non, non, non, non, malheureusement. J'oublies facilement.	MC: No, no, no, no, no, no, unfortunately. I forget easily.
JMR: Vous oubliez facilement.	JMR: You forget easily.

(26 June 1992 03:15)	Translation
JMR: Est-ce que vous souvenez de vos camarades? Vos copines de Solfège? MC: Non, prénom, no. JMR: Et le nom de famille? MC: Non plus.	JMR: Do you remember your friends from music class? MC: No, first name, no. JMR: And the last name? MC: Neither.

(27 November 1992 07:13)	Translation
VL: Qui vous aviez comme cavalier ce moment-là? MC: Oh, plusieurs. Quantité! Quand on est jeune on en a tant qu'on veut. VL: Vous étiez marié ou vous étiez encore jeune fille? MC: Jeune fille. VL: Est-ce que vous vous rappelez les noms de ces cavaliers? MC: Non, non. Vous me demandez trop! VL: Non, je suis sûr que si vous faites un effort...	VL: Who did you have as a date then? MC: Oh, plenty. A lot! When you're young, you can have as many as you want. VL: Were you married or were you still a young girl? MC: Young girl. VL: Do you remember the names of these gentlemen? MC: No, no. You're asking me too much! VL: No, I'm sure if you try... MC: No. VL: You will.

MC: Non. VL: Vous y arriverez. MC: Non. VL: La dernière fois, vous nous avez étonné par votre mémoire. MC: Possible.	MC: No. VL: Last time you amazed us with your memory. MC: Possibly.
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(10 June 1994 09:00)	Translation
VL (with France Cavalié): Est-ce que vous aviez beaucoup d'amis quand vous étiez jeune? MC: Tout le monde. VL: Mais vous vous rappelez leur non? MC: Ah, non, non, non, non.	VL (with France Cavalié): Did you have many friends when you were young? MC: Everybody. VL: But you remember them, don't you? MC: Ah, no, no, no, no.

(15 and 22 September 1994 37:47)	Translation
VL: Quand vous étiez marié, vous aviez des amis, des femmes qui venaient vous voir? MC: Eh... Oui, j'ai rendu visite, j'ai toujours reçu visite. VL: Est-ce que vous aviez une amie de préférence?	VL: When you were married, did you have friends, women who used to come to see you? MC: Eh... Yes, I visited, I always had visitors. VL: Did you have a favourite friend? MC: Erm, no, no. I liked

MC: Euh, non, no. Je les aimais toutes, j'étais bien avec toutes, je riaais avec toutes Je les aimais toutes

VL: Vous n'aviez pas une amie qui était comme une confidente?

MC: Non. J'aime pas ça.

VL: Vous n'aviez pas besoin de vous confier? Vous résolviez vos problèmes toute seule?

MC: J'arrivais toute seule. J'ai passé une belle vie, ha.

VL: Je crois que votre meilleur ami, c'était votre père.

MC: Qui?

VL: Je crois que votre meilleur ami, c'était votre père.

MC: Oh, oui!

them all, I was good with them all, I laughed with them all I liked them all.

VL: You didn't have a female friend who was like a confidente?

MC: No. I don't like that.

VL: You didn't need to confide in anyone? You solved your problems by yourself?

MC: I was on my own. I had a good life there, ha.

VL: I think your best friend was your father.

MC: Who?

VL: I think your best friend was your father.

MC: Oh, yes!

MAYOR JEAN GRANAUD

Jean Granaud (1858-1934) was Mayor of Arles from 1908 to 1919, including the duration of WWI. In the recorded interviews Dr. Lèbre asked Mme Calment if she remembered him. Mme Calment recalled that he lived nearby and was a womaniser.

One of the few old neighbours of the Calments, he is indeed registered in the 1931 census at rue du Théâtre being 73 years old. His funeral was a big event in Arles in 1934.

When Mme Calment was asked about people like Granaud who lived around the time of WWI or later she usually had a clear memory. Before 1900 her memory was almost completely blank.

[7] (23 Jun 1994 12:15)	Translation
VL: Est-ce que vous rappelez M. Granaud?	VL: Do you remember Mr Granaud?
MC: Ah! Ça c'est mon voisin. Il était copain. Oh! Il habitait dans la rue a cote de moi.	MC: Ah, that's my neighbour. He was a friend. Oh, he lived in the street next to me.
VL: Qu'est-ce qu'il faisait?	VL: What did he do?
MC: il s'occupait de la politique.	MC: He was involved in politics.

VL: Qu'est-ce qu'il était en politique? Il était maire ou il était député?

MC: Plutôt maire.

VL: C'est bien oui.

Vous savez qu'il a donné son nom à la rue derrière votre magasin?

MC: Oui, oui, Jean Granaud.

VL: C'est ça, ... avec Granaud vous étiez amie?

MC: Oui, Granaud avait une grosse femme. Il était un coureur! Huch!

VL: C'était un coureur du jupon?

MC: Oh!

VL: What was he in politics? Was he a mayor or was he a deputy?

MC: More like a mayor.

VL: That's good, yes. You know that he gave his name to the street behind your shop?

MC: Yes, yes, Jean Granaud.

VL: That's right, ... with Granaud you were friends?

MC: Yes, Granaud had a fat wife. He was a womanizer! Huh!

VL: He was a womanizer?

MC: Oh!

Conclusion: Mme Calment's selective memory is more consistent with her being Yvonne than Jeanne.

THE MIDWIFE NEVIÈRE



C. Férigoule, Arlesian room: congratulations to the woman who gave birth

Victor Lèbre asked Mme Calment about the midwife who helped her give birth. The conversation appears on the recorded audio [7] (Dec 1992 cont. 11:40) (25 and 26 Feb 1993 08:45) and in the validators' books [2] p48, p75; [3] p34, p75. The following is an improved transcript.

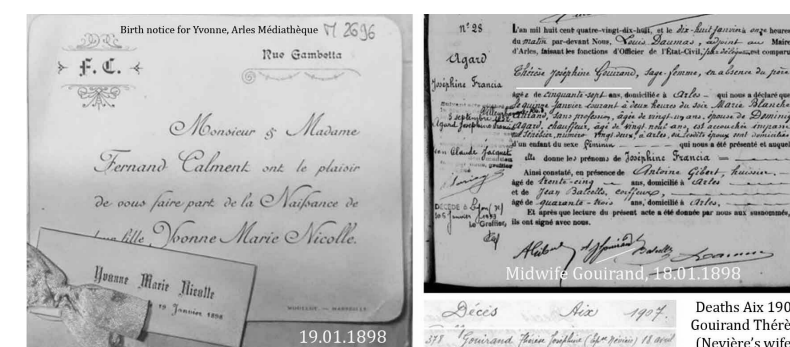
[7] (25 and 26 Feb 1993 08:45)	Translation
VL: Parmi vos ancêtres, parmi les femmes, il y a eu beaucoup de accoucheuses. MC: Ah oui, s'appeler Madame Nevière. VL: Ça, c'est celle qui vous a accouché? MC: Ça qui a accouché ma mère. VL: Qui a accouché votre mère? <surprised> MC: Je crois... Et moi aussi!! Moi aussi, Madame Nevière, est ça qui a accouche moi. VL: Vous vous rappelez cette Madame Nevière? MC: Vaguement... VL: Elle était comment? Elle était grande? MC: Taille moyenne. VL: Elle était douce? MC: Douce comme toutes accoucheuses.	VL: Among your ancestors, among women, there were many midwives. MC: Oh yes, called Madame Nevière. VL: That's the one who helped you to give birth? MC: That's who helped my mother. VL: Who helped your mother? <surprised> MC: I think... And me too! Me too, Madame Nevière, that's who helped me. VL: Do you remember this Madame Nevière? MC: Vaguely. VL: What was she like? Was she tall? MC: Medium height. VL: Was she sweet? MC: Sweet like all midwives.

In the book the midwife's name is transcribed as "Lelière" but on the tapes she is naming Madame

Nevière. In 1875 when Jeanne was born there were two midwives who belonged to the Nevière family in Arles: Brigitte Nevière (1840-1894) and Thérèse Joséphine Gouirand (1840-1907).

They became sisters-in-law on 13 November 1861 when Brigitte married a trader Jean Audibert Bastide and Thérèse married Brigitte's brother, stone cutter Guillaume Nevière. François Robin-Champigneul had found the record of Brigitte's death in Marseilles. She died before Yvonne's birth, so she could assist only Jeanne's mother but not Jeanne.

Yvonne could easily confuse these two closely related midwives if Brigitte helped Jeanne's mother in 1875 and Thérèse helped Jeanne in 1898 but Thérèse lived on the same rue du Roure as the Calments in 1876 so she could indeed be the midwife when Jeanne was born.



In 1898, Mme Gouirand was 58 years old, living at 24 rue de la Roquette and active as a midwife, so she could have assisted with Yvonne's birth too. Neither Jeanne's nor Yvonne's birth was registered by their midwives, so there is no record to confirm that.

Dr. Lèbre mentions that the Calment ancestral family included some midwives. We know for example that Honorade Garrigue assisted at the birth of Jeanne's grandfather Antoine Calment and her granddaughter Honorade Calment was the midwife at the birth of Jeanne's mother Marguerite Gilles. Mme Nevière was unrelated, but it is not clear on the tapes that Mme Calment was saying that she was.

Mme Calment's recollection of the midwife who helped her is cited as evidence of her authenticity [29] because Yvonne was only 9 years old when she died. However, she had a granddaughter Marie Thérèse Louise Nevière born 3 March 1898 who was in Yvonne's class at school.

It is therefore expected that Yvonne would identify her by this name, but she was rather known as Madame Gouirand, as she used to sign as a midwife in birth records both in 1875 and 1898. In France, women retain their unmarried name for official documents, but some become recognisable under their husband's surname.

Unlike Mme Benet-Coste or Maria Félix who used to sign as *Marie Calment*, Mme Gouirand seems to belong to the former category.

On the audio recording Mme Calment says at first that this midwife helped her mother give birth. Dr. Lèbre is surprised, because a year earlier, when he asked her who helped Mme Calment to give birth, she had already named Mme Nevière (December 1992, cont. 13:20).

She should not think of when her mother gave birth before thinking of when she herself gave birth if

she believed that the same midwife helped on both occasions, but that would not be the case if she were Yvonne. This therefore seems like another slip in which Yvonne talks as herself, and then corrects when queried.

Conclusion: Mme Calment's recollection of the midwife is not evidence against the identity switch as claimed by her supporters.

The apparent slip when she refers to "my mother" when she probably meant Jeanne herself and assigning the granddaughter's surname for her grandmother is consistent with the switch. We assign this evidence the likelihood ratio of 2.

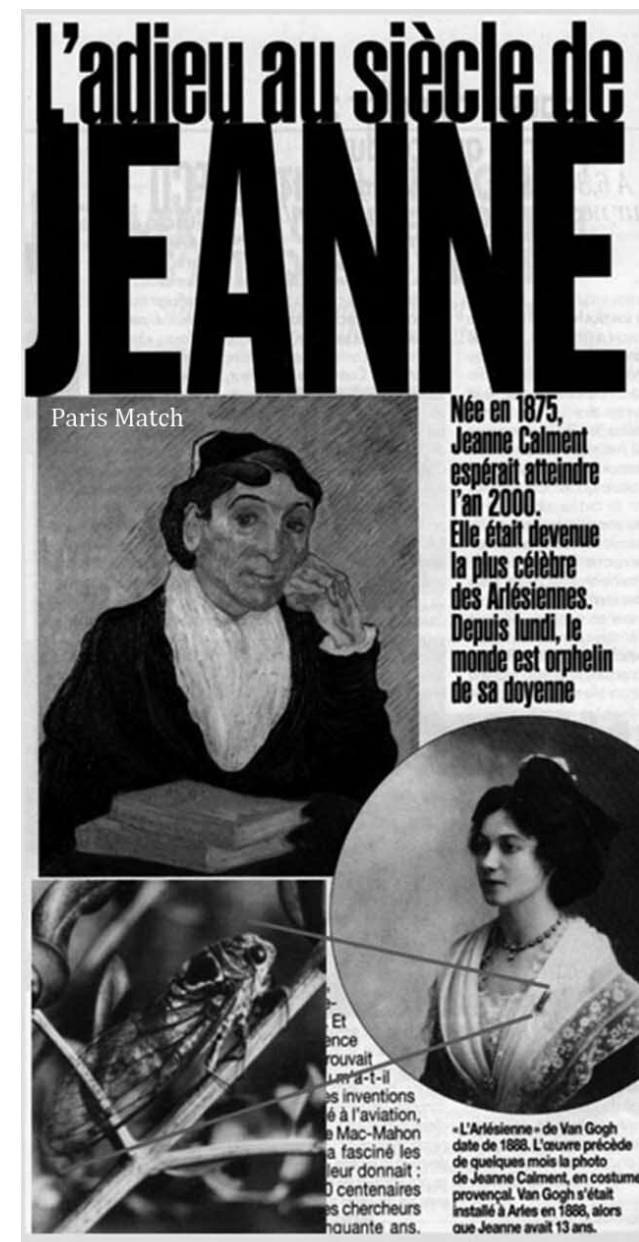
THE POET FRÉDÉRIC MISTRAL

According to Lamy, the poet Frédéric Mistral who won the Nobel Prize for literature in 1904 had given Jeanne a silver brooch representing a cicada – symbol of the Félibrige, an organization which promoted the Occitan language since 1854.

Mme Calment had lost the brooch and the French Minister of Health, Philippe Douste-Blazy presented her a replica for her 120th birthday. According to *The Times*,

“The minister had beaten the path to her door and received a monthly bulletin on the state of health of his national asset.” [22]

Lamy misidentified the picture of young Yvonne wearing this brooch as Jeanne and included it as the only illustration to his book [1], p137. Paris Match has also used this photo as Jeanne several months before her supposed meeting with Van Gogh [30].



Yvonne as 13-year-old Jeanne with a cicada

Mme Calment's validators asked her if she remembered Mistral.

"Yes! Yes, he was a friend of my father... um, he was a friend of my husband!" she replied [2] p99, [3] p105, [7] (7 Sep 1994 00:30).

In a slip of the tongue, she confused Fernand as her father rather than her husband. It is an unusual mistake to make even for someone so old, but it would of course be a natural error if Mme Calment was really Yvonne so that her original words were correct. Mme Calment was recorded confusing her husband for her father on multiple occasions.

The validators prompted her to say more. *"Did you remember his home in Maillane?" "Do you remember when he won the Nobel Prize?"* etc. Each time she responds *"Yes"* or *"Obviously"*.

With this style of interview, we cannot know how many details she actually recalled, rather than just acknowledged. Of course, journalists and other authors often go on to report these facts as if she had brought them up herself, increasing the illusion that she had good recollections of her early life.

"Do you remember his death?"

"Um! Vaguely, my husband remembers better."

It is the kind of reply you expect from someone who does not remember at all and wants to avoid the risk of being found out.

In an earlier video interview recorded for INA in 1987 she had been clearer:

INA interview [15]	Translation
Q: Vous avez connu Mistral?	Q: Did you know Mistral?
MC: Ah, familièrement même. Il m'avait reçu chez lui gentiment. Avec mon mari, nous avions été lui faire une visite, à Maillane, dans sa maison.	MC: Ah, a good friend. He had received me at his house in a friendly manner. With my husband, we had been to visit him, in Maillane, in his house.

Maillane is the commune 25km North of Arles where Mistral had his home all his life. It is very credible that Fernand was indeed a familiar friend of the poet.

Although Mistral was 38 years older, they seem to have attended the same school in Avignon. As a supplier of cloth and ready-made clothes including the traditional Arlésienne costumes, the Calment shop had a strong involvement in events organised by Mistral such as the Mireille balls. They had several common friend such as the historian Emile Fassin and the artist Claude Férigoule. In 1909 Maison Calment exposed a portrait of Mistral embroidered on silk in its windows.



Mistral in Arles on the Place du Forum, in front of Hotel du Nord

When Mistral died in Maillane in 1914 the funeral was a big affair. Jeanne Calment was 39. Even if the Calments were not able to attend, Jeanne would be expected to remember it well given Mistral's friendship with Fernand. Yvonne who was 16 might not have been so aware.

On the audio recordings their friendship with Mistral was discussed twice before the exchange was transcribed in the validators' books. In 1994 they talked to Mme Calment about her visiting the poet at his home and the ill health towards the end of his life, but she was evasive and didn't provide any details [7] (25 May 1994 02:00, 25 May 1994 41:50, 10 Jun 1994 03:30).

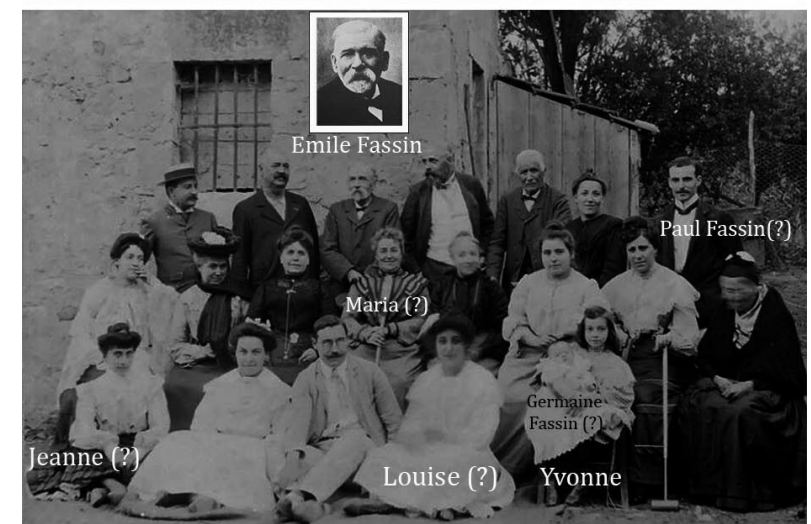
Conclusion: Mme Calment's vague recollections of

Mistral and her slip of the tongue are more fitting for the memories of Yvonne than Jeanne. We assign this evidence the likelihood ratio of 2 in favour of the switch.

COUSIN FASSIN

Emile Fassin (1842-1922) was a lawyer, historian, and mayor of Arles from 1878 to 1880. Being Fernand's uncle by marriage he was very well-known within the Calment-Felix family.

He was one of the witnesses at Jeanne's wedding, so she should have known him well. Emile appears with the Calments on a couple of photos from the Fassin family collection donated by his grandson Pierre to the Arles Médiathèque. On one of the pictures Yvonne holds the baby who is likely to be Germaine Fassin, daughter of Emile's son Paul and his wife Louise, baptised in 1904.



Only Yvonne's identity is confirmed on these photos but the woman sitting in the centre in a fashionable dress is most probably Maria Félix. The man standing behind

Maria is recognisable as Emile Fassin.

[7] (23 Jun 1994 16:10)	Translation
VL: Et de M. Fassin, vous en rappelez?	VL: And Mr. Fassin, do you remember him?
MC: Oui c'était mon cousin.	MC: Yes, he was my cousin.
VL: Comment il s'appelait son prénom?	VL: What was his first name?
MC: Pierre. Pierre Fassin.	MC: Pierre. Pierre Fassin.
VL: Il ne s'appelait pas Emile?	VL: Wasn't he called Emile?
MC: Peut-être. Le prénom je ne me rappelle pas... Je rappelle de lui. Il venait à la maison. Il était ami de mon mari. Je pense, c'est pas grave? Oui, Emile, c'est ça.	MC: Perhaps. The first name I don't remember... I remember him. He came to the house. He was a friend of my husband. I think, it's not a big deal? Yes, Emile, that's it.

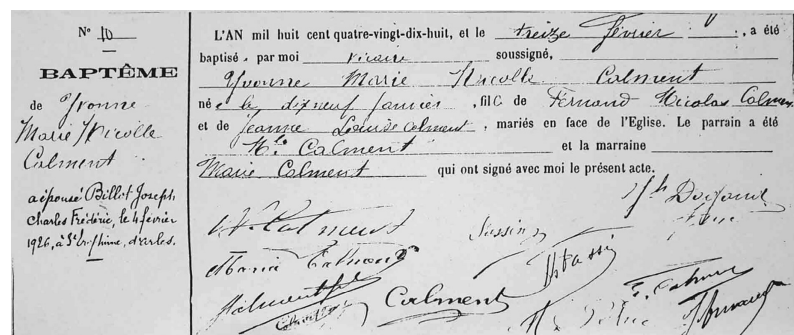
Maria's husband and Fernand's father Jacques Calment is buried in the same tomb as Emile Fassin who died 36 years later suggesting a strong bond of friendship [57].



Graves of Jaques Calment and Emile Fassin together

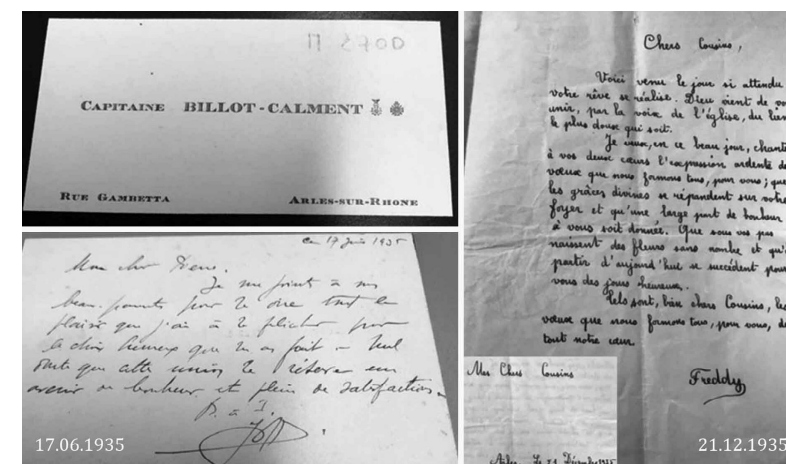
Pierre Fassin (1912-2011) was Emile's grandson, making him a second cousin of Yvonne, and first cousin once removed of Fernand, but he was not blood related to Jeanne, so her reference to him as a cousin would be more fitting from Yvonne than Jeanne who should have known all the Fassin family well.

There are two Fassin signatures on Yvonne's baptism record, Theodore who later became a lawyer in Aix and another that could be Pierre's father Paul who died in 1930 while hunting in Saint-Martin-de-Crau.



Yet Mme Calment could only recall the name of Pierre who was born later in 1912. Yvonne and Pierre's sister Germaine were pictured together at a costume festival in St. Trophime in early 1920s. Later Germaine married Paul Michel, an engineer from Marseilles, and left Arles.

A 1935 note from Joseph (who had used the new double family name Billot-Calment by that time) suggests that the Fassins were not aware of the switch: Joseph writes that he joins with his parents-in-law to congratulate Pierre on his engagement. Then Freddy had sent Pierre a letter with best wishes for his marriage.



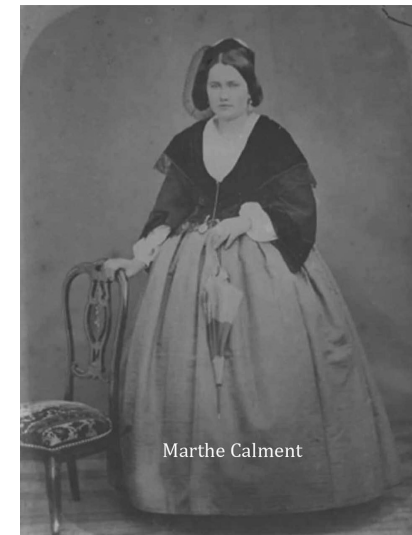
Pierre was a lawyer so being complicit in the identity fraud would have been a professional risk. He was in touch with Yvonne in 1920s and, according to his daughter Claude (who considers the possibility of the identity switch "incredible") he also knew Mme Calment in the 1950s. However, there was probably a long gap in between and Madame Calment's look was consistent with that of aged Jeanne.

With their similarity of appearance Mme Calment could have been able to fool him. We account for this in the Bayesian analysis by considering the probability of Yvonne not being caught after the switch as 0.001.

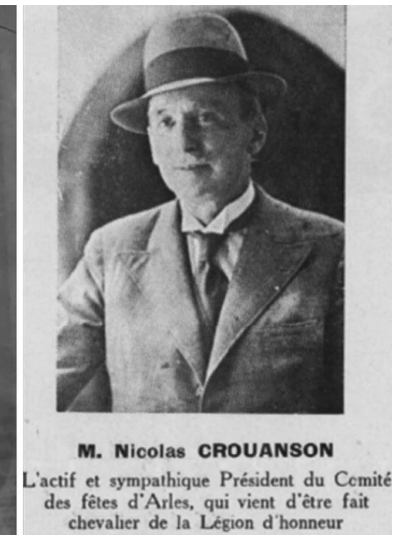
Conclusion: Mme Calment's recollection of Pierre Fassin as a cousin is more correct for Yvonne than Jeanne. Jeanne would certainly have known of Emile Fassin who was not her cousin. Therefore, her response suggests that she is Yvonne rather than Jeanne. We

assign this evidence the likelihood ratio of 2 in favour of the switch.

COUSIN CROUANSON AND COUSIN BOURDELON



Marthe Calment



M. Nicolas CROUANSON

L'actif et sympathique Président du Comité
des fêtes d'Arles, qui vient d'être fait
chevalier de la Légion d'honneur

Nicolas Crouanson (1872-1950) was a son of Jacques' sister Marthe Calment and Mathieu Crouanson. His father died when he was six and Marthe died the same year as Jacques, leaving 14 years old Nicolas and his younger sister Marguerite (1874-1899) orphans.

[7] (23 June 1994 9:20)	Translation
VL: Chez les Crouansons vous avez été témoin au mariage? MC: Oui, bien sûr. VL: C'était pour les filles ou pour les garçons que vous avez été témoin? MC: Pour mon cousin, mon cousin germain qui vient de mon père. VL: C'est ça, on l'a vérifié, c'est bien ça. MC: Mon père s'appelle Nicolas. Et il y a deux avec ce nom. Nicolas Crouanson tenait magasin épicerie... Nicolas Crouanson était très intelligent.	VL: At the Crouansons you were witness to the wedding? MC: Yes, of course. VL: Was it for the girls or for the boys that you were the witness? MC: For my cousin, my first cousin who comes from my father. VL: That's right, we checked it, that's correct. MC: My father's name is Nicolas. And there are two with that name. Nicolas Crouanson ran a grocery shop. Nicolas Crouanson was very intelligent.

Nicolas was a first cousin of Fernand on his father's side, and a second cousin of Jeanne on her father's side. "Cousin germain" means first cousin so is incorrect for Jeanne but assuming she spoke as Yvonne her description is easier to explain.

In early 1900s Nicolas Crouanson was a radical socialist politician and also a president of the music

society *Estudiantina Arlesienne*. Mlle Gachon was a pianist and the music director was a composer André Marie Bourdelon (1867-1919). Mme Calment had never mentioned him. Unlike Crouanson, he was indeed Jeanne's first cousin from her father's side and a witness at her marriage. Bourdelon was also an author of a music piece "*Cousine Jeanne*".

Later Crouanson was well known in Arles as a notable merchant, the owner of grocery shops, and as an organizer of the town celebrations and festivals including the "*Cocarde d'Or*" bullfight at the Arles arena, which survived to this day.

Nicolas and Fernand were members of the same cycling club as Marius Allard (1871-1895) who had won some prestigious races before his early death from tuberculosis. The cousins organised balls together in 1900s and were members of the committee of Charity Festivals in 1942, the year of Fernand's death.



In 1898 Jeanne was a witness at the wedding of Nicolas' sister Marguerite with Marius Deshons. Mme Calment was asked if she remembered being a marriage witness and whether it was a son or daughter of Nicolas Crouanson. She thought she had witnessed Nicolas Crouanson's own marriage. That was not true, and she did little more than affirm his prompting, but Dr. Lèbre said she was correct, they had verified.

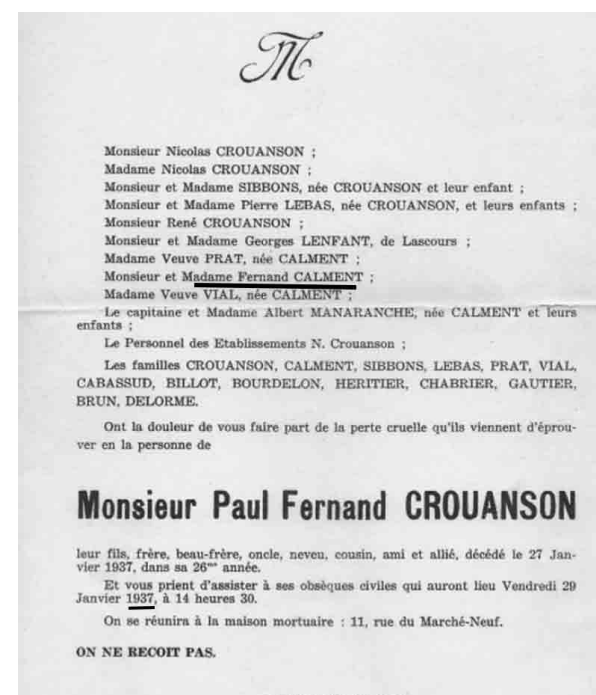
Nicolas and his wife Louise Huss had three daughters and two sons between 1899 and 1910. One of the daughters, Marguerite, died as an infant and we are told that she is interned in the Calment tomb in Trinquetaille cemetery.

Two others, Marthe and Fernande, grew up to be

married and must have been well-known to Jeanne and Yvonne. Like Pierre Fassin, both got higher education in Aix and became lawyers. This was highly unusual for women at the time.

One of their brothers, Paul Fernand Crouanson died in 1937. The Calment family were included on the death notice as close relatives and this was used as an argument against the identity switch by Paul's niece Martine Crouanson:

"Death of my uncle in 1937 – Jeanne is mentioned with her husband – Her daughter died in 1936 (sic) – All those present would have had a doubt about her identity?"



Dr. Lèbre asked Mme Calment about the Crouanson family three times in the audio recordings [7] (25 Feb 1993 07:00, 10 and 15 Jun 1994 05:00, 23 Jun 1994 06:20).

[7] (23 June 1994 6:45)	Translation
VL: On nous a dit qu'un de ses fils s'était marié avec une Anglaise.	VL: We were told that one of his sons had married an English woman.
MC: Ah, non, Marsellaise, une Marsellaise, jolie femme.	MC: Ah, no, Marsellaise, a Marsellaise, pretty woman.
VL: Elle s'appelait comment?	VL: What was her name?
MC: Louise.	MC: Louise.
VL: Mais l'autre fils?	VL: But the other son?
MC: Ah, le prénom ici je me rappelle pas. Je me rappelle que les prénoms des filles, Marthe et Fernande.	MC: Ah, the name here I don't remember. I only remember the names of the girls, Marthe and Fernande.
VL: Et l'autre fils, vous ne rappelez pas s'il était marié avec une Anglaise?	VL: And the other son, do you remember if he was married with an English woman?
MC: Ah, je n'ai pas suivi, je ne le voyais pas, les garçons je les voyait pas.	MC: Ah, I didn't follow, I didn't see him, the boys I didn't see them.

He mentioned the two sons of Nicolas and told her that one married an English woman called Simpson. He might have been confusing with Nicolas' daughter Marthe who married Garth Leslie Sibbons from Canadian Pacific Railway in January 1927 (just after the birth of Freddy when Yvonne was probably ill).

Her sister Fernande married Pierre le Bas half a year later. Mme Calment only knew that Nicolas himself married Louise from Marseilles. She couldn't recall anything about his sons (even their names) and said that she hadn't seen Crouanson's boys.

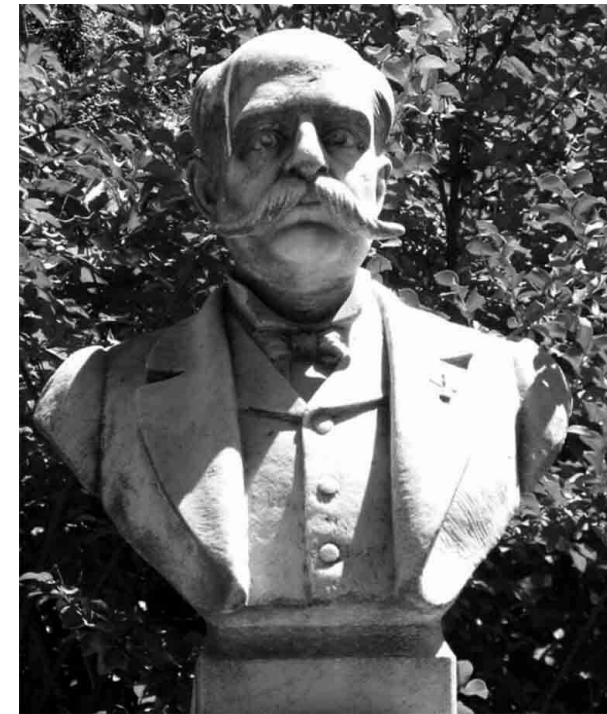
Later she acknowledged the name of one son René when prompted. Since the Calments were mentioned on the death notice of René's brother Paul in 1937, it suggests that such notices are not a good indication of close observance, as has been claimed in relation to the death notice for Yvonne.

Conclusion: Mme Calment confused her familial relation with Nicolas Crouanson and the marriage at which she was a witness. She had only partial memory of the Crouanson children. We would have expected better recall from Jeanne given how close the families were.

This testimony shows how distant she has become even from her close relatives. Her mistakes are more consistent with her being Yvonne than Jeanne. We assign this evidence the likelihood ratio of 2 in favour of the switch.

DOCTOR URPAR AND THE DOCTORS REYS

Dr. Lèbre asked Mme Calment if she knew Dr. Urpar and she confirmed. She said he was the family doctor of her parents and mentioned his activity at rue des Arènes (23 June 1994 10:50; 17:45). Doctor Marie Jules Joseph Urpar (1857–1915) indeed lived at 28 rue des Arènes and was well known and much respected in the town. His statue was installed in the Public Garden in 1918 with a bust created by Claude Férigoule.



Dr. Urpar by Claude Férigoule, Public Garden in Arles

Dr. Urpar was already the chief physician at Arles hospital in December 1888 when Van Gogh was admitted there with his famous ear trauma. He was also the president of the Union of Doctors in Arles and an active member of the committee for helping wounded soldiers. In 1915 he died (apparently, from tuberculosis) becoming the victim of his professional dedication.



Hospital in Arles by Van Gogh, April 1889



Soldiers in the hospital, 1915



Dr. Louis Rey in the college transformed to hospital during WWI

In the same year, Dr. Louis Rey (1878-1973) founded a tuberculosis clinic. His brother Félix later became its head.

In December 1932 Fernand Calment, as president of the Association of Former Students of the College of Arles, dedicated a speech to the memory of Dr. Félix Rey – also an active member of this society, who died earlier that

year.

The pre-war records at Arles Hospital no longer exist and it is unlikely that Jeanne was ever treated there herself. Patients who had tuberculosis usually kept this a secret as it was a highly contagious and stigmatized disease. We don't know which doctors helped the Calments after Dr. Urpar's death and Mme Calment had never talked about that. When Yvonne fell ill in 1927, her father Fernand was likely to seek confidential advice from one of his acquaintances.

It is plausible that Dr. Beraud, Dr. Morizot or Dr. Félix Rey recommended them to seek treatment in Haute Savoie in 1928 and to go to Leysin in 1931. After Félix Rey's death in 1932, his younger brother Louis – a radiologist at the forefront of tuberculosis treatment in Arles – could have treated Jeanne as Yvonne since he probably was not familiar with them before.

Mme Calment was reported to say that Doctor Rey came to them to show his portrait that Van Gogh had just painted.

[24]	Translation
Le docteur Rey qui le soignait avec amitié vint chez les Calment montrer son portrait que le peintre venait de faire.	Doctor Rey, who was treating him with friendship, came to the Calments to show his portrait that the artist had just painted.
MC: Trop de lumière. Et ce rouge sur les	MC: Too much light. And that red on the cheeks,

joues, comme s'il avait écrasé deux tubes de couleur! La femme du médecin s'en est servie pour boucher une vitre de son poulailler	as if he had crushed two tubes of colour! The doctor's wife used it to block up a window in her henhouse.
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[10]	Translation
MC: Mon mari avait un magasin de tissu, à l'angle de la rue Gambetta et de la place Antonelle. Le nom de Calment brillait en lettres d'or et tenait lieu d'enseigne. On y vendait du drap. Les jeunes filles, à cette époque, cousaient leur trousseau. Je n'étais pas encore mariée quand Van Gogh vint au magasin acheter de la toile. Il était très laid. Laid comme un pou, avec une casquette. Dans Arles, on l'appelait le "dingo" et il faisait peur aux enfants. C'est le docteur Rey qui l'a soigné à l'hôpital de	MC: My husband had a fabric shop on the corner of rue Gambetta and place Antonelle. The name Calment shone in gold letters and was used as a brand name. Cloth was sold there. At that time, young girls sewed their trousseau. I was not yet married when Van Gogh came to the shop to buy cloth. He was very ugly. Ugly as a louse, with a cap. In Arles, they called him the "dingo" ("goofy") and he frightened the children. It was Doctor Rey who treated him at the town hospital. Doctor Rey was about the

la ville. Le docteur Rey était à peu près de la même génération que mon mari et Van Gogh a fait son portrait. C'était très ressemblant. Mais le peintre lui a fait de ces "arcanettes" (pommettes rouges). La bonne du docteur avait trouvé cette peinture si affreuse qu'elle l'avait utilisée pour masquer une fenêtre dans le grenier. Dire que ça vaut des millions. On aurait pu lui acheter des tableaux, si on avait su.	same generation as my husband and Van Gogh painted his portrait. It was very similar. But the painter made him these "arcanettes" (red cheekbones). The doctor's maid found this painting so awful that she used it to cover a window in the attic. To imagine that it's worth millions. We could have bought paintings from him if we had known.
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She mentioned the red cheeks, but the portrait from the Pushkin Museum in Moscow has rather red hair and ear.

The Van Gogh's own ear, initially preserved by Dr Rey, was lost. Bernadette Murphy argues that Vincent had cut the whole thing, not just an earlobe as he made everybody believe. She has recently uncovered a letter produced by Dr Rey in 1930 for Irving Stone, the author of biography of Van Gogh *"Lust for Life"*, with a drawing confirming this version [20].



Dr Félix Rey by Van Gogh, January 1889 and on photos

An account of the adventures of this portrait was recorded by René Garagnon who interviewed the daughter of Felix, Pauline in the 1970s:

"Here is the story of this famous painting, word for word, which is now in the Pushkin Museum in Moscow. Let us recall that on December 23, 1888, after a violent argument with Gauguin, Van Gogh went to the Tolerance House at 1 rue du Bout d'Arles and, having asked for Rachel, gave her his

earlobe.

Then he went home. The next morning, his landlady, not seeing him leave, entered his room, and found him bathed in blood. The police arrived and had him taken to hospital. It was the intern Rey (Dad was not yet a doctor) who received him and took care of him.

He had to be put in a separate room with high windows fitted with bars. This did not please my father who was good and merciful (by the way, Van Gogh said so in all the letters he wrote to Theo). But that was the rule. After three days, Vincent had regained his calm. Against everyone's advice, my father took it upon himself to put him in the common room where he behaved very well... because he was now deprived of alcohol.

Dad, like all the interns, had an office on the ground floor. He allowed Vincent to come there to write to his brother Theo. It was in this office that Van Gogh met Louis Rey (1878-1973), Félix's younger brother, who came to do his homework on his way out of the college, which was then located in rue de la République, very close to the Hôtel Dieu (the former college has now become the Museon Arlaten). My father was very kind to Vincent. One day he said: 'You know doctor... you have been very kind to me, very devoted and you have looked after me very well. I'm going to do your portrait and give it to you.'

Then Dad (who had probably never seen a single Van Gogh painting) replied: 'If you want, Vincent,' but he said it without too much conviction, simply out of the goodness of his heart. Let us say, not to upset the artist. Van Gogh made the doctor's portrait and offered it to him. Dad thanked him but when he saw his portrait, he found it implausible and ridiculous.

He took the painting home (he was not yet married and lived with his parents). My grandmother, on seeing it, said: – 'Why did you have this portrait done? I don't want it in my house.' My grandfather replied: 'Listen, this picture is still your son's face. We'll put it in our little cottage at the Pouncho.'

A few years later my grandparents bought a property near the racetrack. They decided to rent the little cottage in Trinquetaille and they moved the furniture from there, including the portrait of Félix.

My grandmother had not changed her mind. The picture, she said, was as ridiculous as ever. What was to be done with it? In the family house at the top of the Trinquetaille bridge (6, rue Anatole France), there was a terrace where she raised a few chickens and pigeons that she brought in from the countryside. As there was a board missing in the henhouse, she asked to install the painting to fill the hole.

Time passed. Dad got married in 1896 and settled in Arles after having sailed for four years (1890-1894) as a navy doctor. Mum, as a good young bride, undertook to clean up Dad's cabinet, which had already been used for two years, from top to bottom. In the cupboard of the waiting room, she found drawings and paintings of Van Gogh. He must have done them in Dad's office (or in the common room of the Hotel Dieu) and Dad, having collected them, had put them in his cupboard. Mum, not knowing what to do with them, threw them in the bin.

Dad was also a doctor in the Arles fire brigade and as he was a senior officer, he sometimes replaced the doctor-major at the station when the latter was absent. One day in 1901, in the month of April, a soldier presented himself to him. Dad examined the soldier and said: 'You are not ill' and sent the young man away. The next day, the young man came back. Felix said to him: 'Don't pretend. Tell me why you are acting sick, while you're not.'

The soldier replies: 'Well, I'll explain. There's an exhibition of Impressionists in Marseilles and, as I'm a painter, I'd like to go and see them.'

Dad replied: 'Are you an Impressionist? Well, you won't believe it, but I saw an unusual one. His name is Vincent Van Gogh. This Van Gogh whom I treated at the Hôtel-Dieu; he painted my portrait.'

'It can't be! You'd be so kind if you'd show it to me.'

'Listen, I don't know where it is at all. I'll ask my mother.'

My grandmother told him that it was replacing a plank of the henhouse on the terrace. Dad said: 'This soldier, who is called Camoin and who is a painter, would like to see it.'

'So,' replied Grandma, 'we'll have to clean it up because it's very dirty.'

So Camoin came to our house one day and went up to the terrace with Dad. After he had unhooked the painting, Dad cleaned it piece by piece and Camoin fell to his knees in admiration of the canvas. The soldier left on leave and from Marseilles he wrote to my father:

'If you wish to sell the painting, tell me the price you want for it.' As my mother needed a chandelier for her living room, she said to my father: 'Do you need this portrait that Camoin finds so beautiful?' Dad replied that he did not. 'Then sell it.'

Dad wrote the letter to Camoin and showed it to his parents. He asked for a very small sum, such a ridiculous sum that if you don't mind, I won't tell you...

Three weeks later, Doctor Delon from Nîmes, whose brother was in Paris, wrote to Dad about

the painting. Delon said: 'If you sell your portrait, I have a buyer for 25,000 francs.' Dad answered him that the painting was sold.

To thank my father, Camoin offered him a painting, 'The port of Cassis'. The years passed. In 1919 or 1920, Gustave Coquiot, who was preparing a book on Van Gogh, came to see Dad and told him that the impressionists were now very famous and that Van Gogh's paintings were fetching high prices. Dad's portrait had been passed from gallery to gallery, from art critic to art critic and it had been bought by a Russian collector. The painting was exhibited twice in France, in Bordeaux and in Paris.

There was also the case of the performance in which the painting was used to plug a hole in the henhouse. We did not like this play because it made a mockery of the family. The playwright pushed the incongruity to the point of keeping the names of Félix and Angelique, the first names of my father and mother.

And then there are also the books on Van Gogh. They all talk about my father. All the authors – or almost – say that Félix Rey was very kind to Vincent, but there is a writer who says that my father had rather bourgeois tastes. He got rid of the painting because he had not understood anything. And Dad was very upset."

After retelling the interview of the daughter of Dr. Rey,

Garagnon provides his own summary of events:

"It would remain to make the history of the painting. Let's summarize it. The intern Rey was 23 years old when he treated the hospitalized painter from December 24, 1888 to January 7, 1889. To thank 'the gracious doctor', Vincent made his self-portrait. On January 17th, Van Gogh wrote to his brother that he had finished the portrait of Doctor Rey and that he had given it to him 'as a souvenir' (letter 571F).

The portrait was done in the doctor's office which was on the north side of the Hôtel-Dieu, third door on the right. If one compares the portrait with photographs of the time, one realizes that Vincent rather 'adjusted' the doctor. Doctor Michel insists at length on this point on page 165 of his book. But Rey did not accept that 'having at that time a brown beard and brown hair, the painter made him a green beard and red hair'. The reaction of the family was also virulent.

Louis Piérard has rightly remarked that the doctor has 'a vaguely Asian air'. Reminiscences of Japan that Vincent dreamed of seeing. Let us say that the resemblance between the painting and the photographs is quite astonishing (R. Pickvance).

Vincent also asked his brother to send the doctor a reproduction of Rembrandt's 'Anatomy Lesson' to thank him for his care. This engraving remained in his cabinet until his retirement. Félix's younger

brother, Louis Rey, also had an oil painting of the anatomy lesson in his consulting room in rue de l'Hôtel de ville. Curious!

Entrusted to Camoin, the portrait and some other paintings were put on deposit with Molinard. A few weeks later, the dealer announced that, as he had not found a buyer, he was sending them to Vollard, his correspondent in Paris. As soon as he received the paintings, the Parisian replied that he had a buyer for three hundred and fifty francs (150 francs for the portrait and 200 for the other paintings). This is a godsend. Rey pockets the money.

The painting is called 'Portrait of a man on a stretcher, front bust slightly turned to the right, signed in red: Vincent, Arles, January 1889'. The portrait was not mentioned again until 1908. It was bought by the Paul Cassirer Gallery in Berlin and then by the Druet Gallery in Paris. Druet then sold the portrait that year to the collector Shchukin for 4600 francs.

The identity of the portrait was only discovered sixteen years later on September 26, 1924. Indeed, a biographer of Van Gogh, J. B. de la Faille, looking for the intern of the Hôtel-Dieu in Arles, sent him a photograph: 'Is it you?' 'Yes, it's me,' replied Rey.

Four years later, Félix Rey retired. He also received a photo of the portrait sent by Mr. Ternovetz,

the director of the Museum of Modern Art in Moscow, who exhibited it after it was confiscated by the October Revolution. It is now in the Pushkin Museum.

In one of his best novels ('Les Lions d'Arles'), Yvan Audouard, my former English teacher at Arles College, summed up very well in a few lines full of humour what had happened:

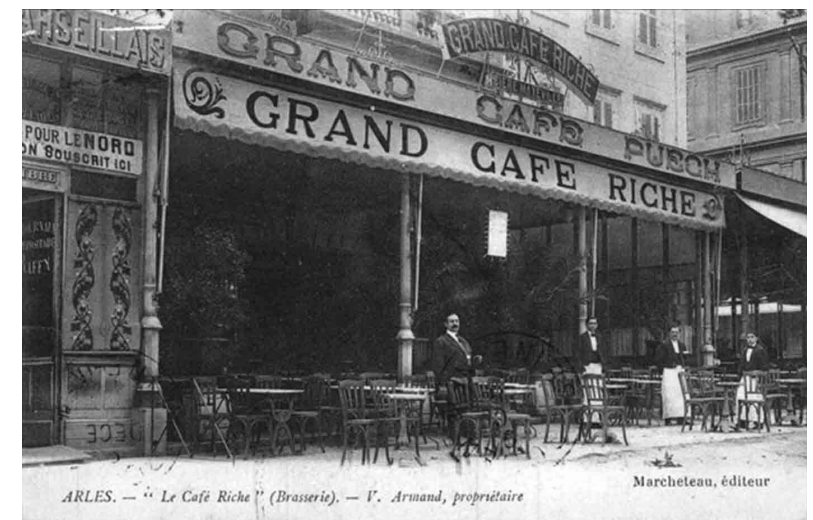
'Van Gogh, in the past, had humbly presented his paintings to some of these Beotians. They had used them to plug the windows of their wardrobe and had almost died of spite afterwards. Since then, they have been trying to make up for it. They are so angry at having missed Van Gogh that they buy any crust in case it is worth a fortune one day...'" (translated from [58]).

Some details of these memories (e.g., who exactly used the portrait as a plug in the chicken coop) differ from those provided by Mme Calment but in general she was aware of the anecdote. Unfortunately, there is no mention of Dr. Rey or of the doctor who treated Yvonne in the published tapes.

Talking about Dr. Urpar, Dr. Lèbre mentioned that he was a delegate of the French Touring Society and the president of the Committee of Initiatives of Arles (with Calment's notary Arnaud and art teacher Férigoule being vice presidents) and asked if he was bald. Mme Calment said that she was not interested in that at that time and couldn't recall these details.

We know that as the president of the Committee of the Celebrations, doctor Urpar had organized the last costume festival in the town just before the war in 1914, with 130 young girls in traditional costumes participating in the *Festo Virginienco* at the Arènes. This tradition was revived only after 1922 when Nicolas Crouanson took the leadership in the Committee of the Celebrations while Madame Mistral (widow of the poet) became the honourable president.

Thanks to these festivals we now have multiple pictures of Yvonne in traditional costumes by Emile Barral who also took photos of her wedding and of her son Freddy.



Café (founded by the father of Calment's accountant Marius Puech) by Marcheteau

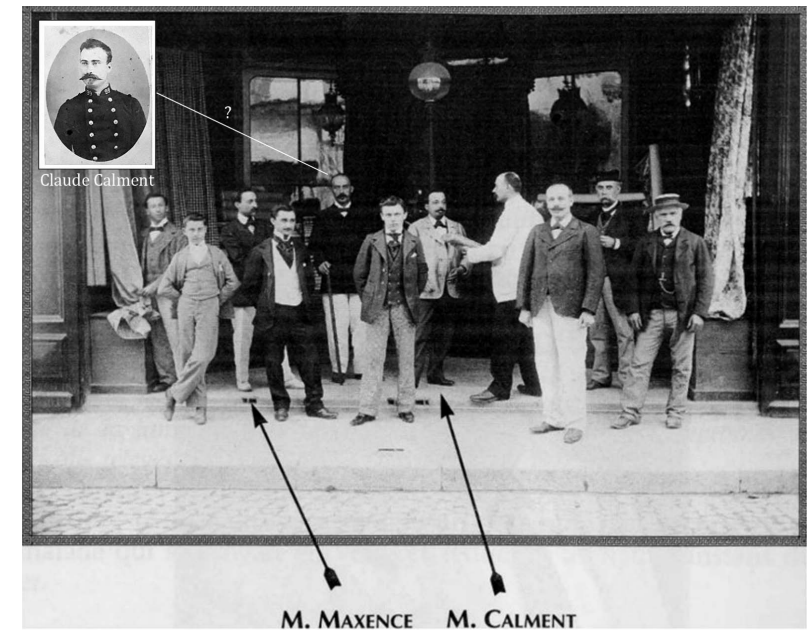
Dr. Lèbre asked Mme Calment if she knew the photographer Marcheteau [7] (23 Jun 1994 18:30). She

could not remember the name. Marcheteau started working in the town at around the time of Jeanne and Fernand's marriage and was probably the most famous and prolific photographer in Arles before the war. He likely took some of the Calments' family photos including the one of Jeanne in a white dress.

It is surprising that Jeanne would not recognise the name. When Yvonne grew up, his role as the leading local photographer was taken over by Barral, so it is not surprising that she would not have known Marcheteau.

Mme Calment was asked if she remembered a number of other names. As a rule, she recalled the names that Yvonne would have known, but not the ones that Jeanne should have known. There seemed to be a few exceptions (torero Espartero, Benet pension, midwife Nevière, teacher du Bourguet and dressmaker Chambourdon) but it can be easily explained why Yvonne knew them.

CALMENT'S EMPLOYEES



Calment employees c. 1907 from Pierre Maxence collection [59]

On audio recordings Mme Calment recalled names of some of the Calment shop employees – Marius Puech, Marius Silvestre, Jérôme and Feuillas [7] (10 Feb 1993 03:10, 25 Feb 1993 05:30).

Ferdinand Puech together with a photographer Dominique Roman were the witnesses of the death of Jeanne's paternal grandmother Marie Anne Poujaud in

1886. His son Marius was born two years earlier as Marius Lavandet with the help of Mme Gouirand, the same midwife who delivered both Jeanne and Yvonne.

Marius was recognized by Ferdinand only in 1903 when he was 19. That year café Puech at Boulevard des Lices founded by Ferdinand served as a control point for the first Tour de France. This café was frequented by the town's good society, including Fernand Calment, who was a member of the hunting, cycling, bullfighting and other societies that met there.

The military record of Marius Puech states that he was a draper's clerk, exempted from service because of scoliosis in 1905. Mme Calment noted that he was hunchbacked and named him as the head cashier of the shop. She said his parents were rich and he had a charming wife who married him for money. She didn't know if he had children, but census records show that Marius had a son Ferdinand. When his grandson was born in 1939, a newspaper referred to Marius Puech as an accountant at Maison Bouisson (ex-Calment).

Puech had probably replaced Fernand's uncle Adolphe Claude Honore (Claudius) Calment who was an accountant in the store since the death of his brother Jacques. Claude was also a volunteer in the war of 1870 and a distinguished firefighter. Wounded in a fire in 1901, he had probably used a walking stick. Jeanne was a witness at the marriage of Claudius' daughter Marthe (1879-1950) but Mme Calment never mentioned him despite his importance in the store.

Marius Silvestre was 17 years older than Marius Puech. He was also born out of wedlock and exempted from

service in the army due to *doigts palmés* (webbed fingers). Mme Calment said that he was "*chef du rayon*" and replaced Fernand in the store when he was away.



Mercury by Marius Silvestre in the vitrine of Maison Calment, 1913

Mme Calment mentioned another "*chef du rayon*", Jérôme. That was Jérôme Arnaud. He appears in the 1911 census as a Calment employee, born in 1864. The 1931 census didn't list his employer but from the local newspaper we know that he died on 13th January 1934 (6 days before the official death of Yvonne Calment) having been an employee of *Grands Magasins Fernand*

Calment for about 40 years. According to the obituary,

"A very large crowd accompanied him to his final resting place."

A famous notice with similar wording would be published about Yvonne's funeral which was held a week later. If it became known that Jeanne suffered from tuberculosis, then this series of deaths would be very bad publicity for Calment's business.

Feuillas was Antoine Feuillas born in 1869 in Fourques. Like Puech and Silvestre, he was also exempted from service in the army (due to *faiblesse générale* – general weakness). Fernand had been a witness at his weddings in 1892 and 1901 so they were likely old friends. In the 1911 census Feuillas was listed as "*commis*" at the shop, like Marius Puech, suggesting that he held a more general administrative role, possibly taking over some of the duties of Maria as she retired.

Mme Calment said that altogether there were about ten employees. The 1911 and 1931 census returns usually named the employers, so for those years it is possible to make lists.

Marius Maxence, a cousin of Feuillas, was employed by their rival Philippe Bouisson in 1911 but in 1932 he received a "Medal of honor" for his work at Maison Calment which implies that he served there for 20 years since 1912 (excluding the First World War when he fought at the front).

Arnaud, Feuillas, Silvestre and Vidal had got their medals in 1929. From newspapers we also know about

another employee, M. Parent, who died in 1928 after a long illness. He was also a general controller in the Municipal Theatre.

Overall, we have found 11 employees in 1911 census including 4 tailors and 6 employees in the 1931 census (excluding Joseph Billot who was not listed as an employee until 1936). Silvestre and Feuillas were mentioned by Pierre Maxence, so they were probably still there in 1931. Maxence has also named Gallion and Armand.

The Manfredi and Bourges families who worked for Calment in 1911 were self-employed in 1931. It seems that by 1931 the Calment's store had switched to selling furniture and fabric and no longer employed tailors. Furniture is a "dead stock" and is not the type of goods one would like to store during the deflation, so Maison Calment underperformed their competitors in the 1930s.

According to Pierre Maxence, his father Marius was the oldest employee of the store when it closed in 1938. Since Marius was the third youngest employee in 1931, that means that the others had finished their career in Maison Calment earlier in the mid-1930s.

Employee's name	Born	Position in 1911	Address/ source
Antoine Feuillas	1869	Clerk	7eme, rue Théophile Rives

Claudius Calment	1850	accountant	7eme, Bd des Lices
Marius Silvestre	1867	Salesman	4eme, rue Gambetta
Jérôme Arnaud	1864	Salesman	4eme, rue Gambetta
François Quaranta	1877	Tailor	4eme, rue du Théâtre
Victorin Bonnafox	1877	Employee	1er, Amedee Pichot
François Manfredi	1870	Tailor	5eme, Croix Rouge
Nicolay Manfredi	1895	Tailor	5eme, Croix Rouge
Antoine Manfredi	1897	Employee	5eme, Croix Rouge
Philippe Bourges	1863	Tailor	11eme, Chemin Barriol

Maria Bourges	1892	waistcoat maker	11eme, Chemin Barriol
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Employee's name	Born	Position in 1928-31	Address/source
Aimé Deguilhem	1913	Commis	Impasse Lamartine
Marius Puech	1884	Employee	rue Roquette
Gabriel Bénét	1909	Employee	La Roquette
Jérôme Arnaud	1864	Employee	rue Duleau
Marius Maxence	1887	Employee	rue du Pont
Marius Jourdain	1888	Employee	Quai de la Roquette
Silvestre, Feuillas, Gallion and Armand		Employees	Maxence testimony

Vidal		Employee	Newspaper s
Parent (died in 1928)		Employee	Newspaper s

Mme Calment said that their store was bigger than Maison Bouisson which rented their premises since 1938. A concert program from 1914 (probably handwritten by Jeanne) claimed that it was the most important store in the region.



A 1911 Bouisson's advert disagreed:

"If you are looking for a new, well finished, inexpensive, made-to-measure half-season suit, contact the Maison Philippe Bouisson, the oldest and most important drapery firm in the region".

Their rivalry has also spread to the field of charity. In 1912 Mesdames Calment and Bouisson were praised for their generous donations for the poorhouse foundation "Ouvroir des pauvres" of the "Ligue Patriotique des Françaises".

The rumours of Calment's problems with dressmaking started to emerge at that time. The debunking note was published on 22 September 1912 in a local newspaper:

"Fernand Calment, Novelties! Contrary to some ill-intentioned rumours, the number of men's tailors has increased due to the success of the last few seasons. Tailors and dressmakers of the first order! This week's drapery exhibition!"

There has always been strong competition between novelty shops in Arles, each one claiming to be the best. For example, Maison Calment was engaged in a "ribbon war" with Maison Maureau located on the other side of place Antonelle. Maureau sold an exclusive ribbon that won a prize at the 1900 Paris Exposition and accused his competitors of selling counterfeits:

"Mr. Marc Maureau fils, the only custodian of the sublime Swiss Army velvet for Arlésienne headdresses, has the honour of warning the public to beware of the numerous counterfeits known as

'the same high quality' sold by certain houses in our town and to accept as his brand only velvets bearing the label with the Swiss Army, which are always of impeccable quality."

Maison Calment responded calmly:

"La Maison Vve Jacques CALMENT & FILS has the honour of informing its customers that it has just received a complete range of black and coloured ribbons for Arlésienne headdresses. It always guarantees THE SAME HIGH quality."



Drapery stores fight for customers; the "ribbon war"

On 23 February 1906 Maison Maureau was destroyed by a violent fire which started late in the evening, when the firefighters were sleeping; the newspapers reported some difficulties in waking them up. Captain Claudius Calment

"had nothing left to do but to protect the neighbouring buildings, which was done with remarkable devotion by all his men. The fire's focus, occupying an area of more than 600 square metres, was terrifying, and one shuddered at the thought that the slightest mistral wind could have wreaked havoc on a whole neighbourhood."

It was only after the arrival of the P.L.M. workshop with its steam pump installed in the Craponne canal that the fire was finally extinguished and the other buildings, including Maison Calment, were saved. Marc Mareau got the insurance for his destroyed property while twenty-five of his workers (twice as many as in Maison Calment) became unemployed. Maison Bouisson took over as a new dealer for the exclusive Swiss Army velvet.

Calment's validators and even the locals like Pierre Maxence usually call their store the biggest in the region. This could be true in 1906 after the demise of Maison Maureau but already in 1907 Maube brothers built the *Nouvelle Galleries* store on the site of the demolished Maison Mareau. By 1931 it was a much larger employer than Maison Calment and continued to thrive after Fernand closed his business in 1938.

Conclusion: Mme Calment had a good memory of some of the employees working in the shop after 1918. It makes her lack of memories about people unknown to Yvonne such as Jeanne's childhood friends even more suspicious.

MAXENCE AND DAVID TESTIMONIES

When Mme Calment died in 1997, Pierre Maxence, who was the same age as Jeanne's grandson Freddy, provided his memories of the store from the early thirties.

"Much has been said about Madame Jeanne Calment (pronounced like Carmen). She was a great lady. But little has been said about Mr. Fernand Calment and even less about the Maison Calment. It is this large store at the corner of rue Gambetta and place Antonelle, where the Batta shoe store is now located.

My late father, Marius Maxence, having worked in this house 7 years before the 14-18 war, and 20 years after, was the oldest employee at the time of the closing. After 27 years of good and loyal service (and the work medal) he was obliged to turn to another profession. The Calment store had a very large area, stretching across place Antonelle, rue Gambetta, rue St Estève and rue Jean Granaud.

The side on rue Gambetta was reserved for the sale

of all sorts of fabrics. With large shelves going up to the ceiling and ladders to access the different departments. Large banks (at least 5 or 6), each about 5 meters long, where rolls or plates of fabric were unrolled to show them to the customers and measure the lengths. Square wooden rulers of one meter long were used to measure.

I remember in the 30's, when I came to see my father at the store (I lived only a hundred meters from the bridge), I was playing with Frédy Billot, the grandson born from the marriage of Yvonne Calment to Colonel Billot. We were only a few months apart and we hid behind banks or behind furniture. I was fascinated by the colours and tones of hundreds of fabrics, some of which were displayed on the banks. The store looked like a rainbow of colours that lit up the room.

The back part of the store on rue Jean Granaud side where you had to climb a few steps to get there, was the furniture side. You could find everything you wanted: chairs, tables, sideboards, bedrooms, dining rooms. Not luxury furniture, but good quality furniture.

A van made the delivery, painted with the colours of the city: yellow and blue. If I remember the colours so well, it's because I had participated in a drawing contest organized by Maison Calment and I had won a prize. Certainly not deserved because I am a very bad painter, but they wanted to please the son of an employee.

The owners of the Mas de Camargue and the Mas de Crau were the best customers of the house. I still recall the names of some of the employees who worked with my father. Some of their children or grandchildren will remember them: Messrs Puech, Silvestre, Feuillad (sic), Jourdain (Falque store at the end of avenue Sadi Camot), Roger Armand (hosiery store at the corner of rue Réattu), Gallion, Deguilhem.

Seen from the top of my 6 or 7 years old, it was one of the first big stores, since it employed a dozen employees. It was then the largest store in the city, managed by Mr. Calment with great competence and kindness for his staff.

He was often in the store, unlike Madame who only came in very rarely. The "Maison Calment", as it was called, was located in the most commercial part of the city, because many Arlesians came to shop at the "Poissonnerie".

A real commercial centre including among others (I quote from memory): the butcher's shop Pêtre, the fishmonger's Auphand, the bakery Crespin, the cheese factory Derbès, the grocery Treillard, the hosiery Faïsse, the pharmacy Martel, the delicatessens Orgeas and Coron, the café Berthet, etc. etc.).

The Calment family was a family of notables from Arles. One could say a family of Bourgeois with a

good way of life, including Colonel Billot and his wife Yvonne Calment. Memories, memories ...

As Mme Calment said so well, of a beautiful time: that between the two wars. A time when we used to go with our families to the "ferrades" or to Saintes Maries de la Mer by the little train of the Camargue for holidays and Sundays of festivities and happiness. Where all the people approached each other in the street to talk, to take news, that we often learned by word of mouth.

Without unemployment: a single office with a single employee! Another time when all the streets were pedestrian, there were no cars! All the stores were in town. No TV, no fridge, no car. Weekday clothes and Sunday clothes. But no drugs, no vandalism, no delinquency. A lot of happiness even for the poorest! The comings and goings of the youth on boulevard des Lices or rue de la République, the balls, the singers in the streets and I forget!

Arles, Arles my city, you have changed a lot! Or is it us who have changed? Memories, memories, that's life, but it's also the war that upset everything! And then the aftermath ... where nothing is and was like before!" – Testimony of Pierre Maxence, translated from [59].

Being a small child at that time, not all his memories were correct. Maison Calment was not the biggest store in the region since we know that the New Gallery store

located in front of it was clearly much larger.

The information provided by Maxence related to employees of the store agrees with what we know from censuses and from Mme Calment. He confirms that she was seen in the store only very rarely. An interesting part of his testimony is the drastic change in social interactions which happened due to the hostilities of the war. This improves our understanding of how the switch could have passed unnoticed.

Another article for the *"Friends of old Arles"* journal by Pierre Maxence suggests that after 1933 he probably lost the close contact with Calments because his family had moved much farther away:

"My mother used to wash her clothes in the Rhône, in Trinquetaille, because of the current and the sunshine. We helped her carry the baskets of laundry, as well as the bench and the beater. You should have seen the quays of the Rhône (Trinquetaille side) with all this beautiful white linen (at the time there was very little colour) spread out on long ropes to dry in the sun.

The house had neither electricity nor a sewage system. Every morning, the so-called 'tinette' passed by. It was a horse-drawn cart with a tank on top of it (the tinette) into which an attendant emptied the buckets that people handed him. We went upstairs to bed with the Pigeon lamps. We had two lamps (one for the parents, one for the children) because there were only two rooms. In the evening, we used to light the gas suspension as

late as possible.

In 1933 we moved because the house was too small and without any facilities. We moved to rue Porte de Laure (number 6) between the Arena and the Ancient Theatre. The site is now occupied by a car park. We stayed there for forty years." [49]

There is another useful testimony from Didier David, translated from [60]:

"I was born in Arles, at the end of the winter of 1929, which had been particularly harsh: the Rhône was frozen over, and heavy snowfalls had turned the Camargue into a Siberian steppe. In the Rièges wood, in the middle of the Vaccarès, seventy cows and bulls from Emile Granon's herd had died of hunger and cold.

During my childhood, I often accompanied my mother on important purchases. Like my ancestors at the time of Louis XIV, we lived in Trinquetaille and had to cross the Cage Bridge (which Van Gogh painted when he set up his easel in front of my grandmother's door), to go and get dressed at Place Antonnelle, at the 'Nouvelles Galeries Calment' (sic).



Trinquetaille Bridge in Arles by Vincent Van Gogh, 1888

I take this opportunity to specify that in Arles, it is pronounced Calmain. Later, during the Occupation and before the English destroyed it, I crossed this bridge four times a day to go to the Frédéric Mistral school where there was a pupil Frédéric Billot, my elder by four or five years, and with whom I often travelled. For the youngster that I was, Frédéric was an "elder", almost a big brother.

When I told my parents about him, they told me that he was the grandson of Mme Calment, the owner of the Nouvelles Galeries' (sic), where I had bought my communion suit.

Sometime later, my mother discreetly pointed out Jeanne Calment to me as we passed her on rue Gambetta. She appeared to me as a tiny grandmother, dressed in black, very alert and lively. In fact, she was about the same age as I am at the time of writing. On my way to visit Etienne Laget, a Camargue painter and friend of my father who lived in rue Saint-Estève, I met her several times because she was his neighbour.

When I stopped working, the virus of genealogy reached me while I was visiting the graves of my great-grandparents. I went through the civil records of Arles and, as Jeanne Calment was about to turn 115, I discovered our tenth-degree relationship. With our seafaring forebears since 1630 between Arles and La Ciotat, our link goes back to the marriage of Pierre Calment, Jeanne's great-grandfather, to Marthe Fréou, on 25 November 1788."

As with Maxence, David's testimony was not entirely accurate. He assumed that the bridge was destroyed by the English, but in fact it was bombed by the Americans who were in close cooperation with the Free French Airforce. He said that Freddy was older by four or five years, but he was just two years older.

Despite being friends with Freddy, Didier had seen Mme Calment in the street for the first time only after the war. Like other residents of the town, he knew about her existence and hadn't any reason to doubt her

identity, but he was not very familiar with the details of her life.

For example, his mother told him that Mme Calment owned the New Gallery store which they confused with the Calment's store. We know that Maison Calment was closed before the WWII and its premises were used by Maison Bouisson.

It is interesting that Didier's father was a friend with the famous painter Etienne Laget, son of the esperantist Louis Laget. According to census records, Etienne Laget was one of the few neighbours who lived near the Calments considerably long both before and after the switch.

Mme Calment was known to lead a secluded life and she was probably not seen by her neighbours for several years after the switch. Judging by available photos, her appearance after the war was consistent with aged Jeanne, but it is still remarkable that she was not caught and rumours about her real identity were kept at bay and didn't hinder her viager deal with Raffray and later longevity validation efforts.

In our Bayesian update we assign the probability ratio for the evidence that she was not caught after 1934 as 0.001 in favour of no switch.

SLIPPING INTO BEING YVONNE



When Mme Calment did not know the answer to a question, she often intentionally gave her own memories to replace those of Jeanne's. When she knew the answer, she had to tell the story as if she were Jeanne.

Keeping track of her fabrications while giving

testimony was a feat of mental gymnastics for Mme Calment. Inevitably she got carried away. Her mind sometimes slipped, and she said what Yvonne would have said instead of Jeanne.

These slips most clearly reveal her deception. The first slip we found dates to 1977 when she told Garagnon that her father led the Anti-German League in Arles. Here we gather some of those mentioned above in context together with a few more.

NAMING FERNAND AS "MY FATHER"

She often slipped calling her husband her father, then corrected herself or was corrected by the interviewer:



[7] (27 Nov 1992 34:35)	Translation
MC: Quand mon père a changé le salon... mon mari a changé le salon	MC: When my father changed the salon... my husband changed the salon



(10 Jun 1994 24:10)	Translation
VL: Quand on voit une jolie femme on lui fait toujours un peu la cour. MC: Oh mon père veillait ... oh mon mari veillait.	VL: When you see a pretty woman you always court her a little. MC: Oh, my father kept an eye on me... oh my husband kept an eye on me.



(23 Jun 1994 26:15)	Translation
VL: Vous suiviez les courses à la jumelle?	VL: Did you follow the races?
MC: Oui. Surtout mon père.	MC: Yes. Especially my father.
VL: Votre père vous accompagnait à ce moment-là?	VL: Did your father accompany you at that time?
MC: Ah non je suis mariée... bon je rappelle pas, j'ai un peu oubliée.	MC: Oh no, I was married... well, I don't remember, I've forgotten a bit.



(7 Sep 1994 00:30)	Translation
VL: Est-ce-que vous avez rencontré Mistral dans votre vie?	VL: Did you meet Mistral in your life?
MC: Oui c'était un ami de mon père...un ami de mon mari.	MC: Yes, he was a friend of my father's...a friend of my husband's.



(7 Sep 1994 continued 07:45)	Translation
VL: Vous jouiez de l'argent au champ de course?	VL: Did you play money at the horse racing track?
MC: Mon père pas moi ... Mon mari pas moi.	MC: My father not me ... My husband not me.



(07 Sep 1994 continued 05:20)	Translation
MC: J'ai y allais avec la voiture de mon père.	MC: I went in my father's car.
VL: C'était la voiture de votre père ou de votre mari?	VL: Was it your father's car or your husband's car?
MC: Mon mari, voiture quatre places, à vis-à-vis.	MC: My husband, four-seater, vis-à-vis.

SPEAKING FROM YVONNE'S POINT OF VIEW

Sometimes she switched the personality from whom she was speaking for a much longer part of the dialogue than just a couple of words like “my father”:



Dr. Lèbre asked her about the shop at the time she lived there with her husband (and daughter Yvonne). She said that she was not working in the store, she was at home, helping her parents.

[7] (10 Feb 1993 04:25)	Translation
VL: Et est-ce que vous vous y travaillez à ce magasin? MC: Non j'étais à la maison moi, j'aidais mes parents.	VL: And did you work in this shop? MC: No, I was at home helping my parents.



She was speaking as Yvonne again, talking about her rich parents living in the Gambetta apartment. When corrected she said that it was too long ago. She repeated the mistake twice in the same dialogue.

(25 May 1994 10:40)	Translation
MC: Bah, bien sûr, une jolie maison, mes parents étaient aisés ils avaient une belle maison. VL: Mais là c'était chez votre mari? A la rue Gambetta? MC: Ah c'est plus vieux ça! [...] VL: La vie avec votre mari vous aviez beaucoup de confort? MC: Oui, bien sûr, mes parents étaient aisés.	MC: Well, of course, a nice house, my parents were well off, they had a nice house. VL: But that was your husband's house? In the rue Gambetta? MC: Ah, that's too old! [...] VL: Did you have a lot of comfort living with your husband? MC: Yes, of course, my parents were well off.



When describing Yvonne's communion, she was speaking as Yvonne instead of Jeanne until corrected.

(13 Feb 1993 18:40)	Translation
VL: Et ensuite que-ce que vous faisiez? MC: Je m'occupé des choses dans la maison de mes parents. J'aidais mes parents à arranger les choses [...]	VL: And then what did you do? MC: I took care of things in my parents' house. I was helping my parents to arrange things [...]
VL: Vous était habile comment ce jour-là? MC: En communiant, une robe blanche.	VL: How did you dress that day? MC: In a communion dress, a white dress.
VL: Mais VOUS, qu'est-ce que VOUS aviez vous comme tenue?	VL: But YOU, what did YOU wear?



She first recalls that the midwife Nevière helped her mother and only then after a hint from the interviewer mentions that she helped herself too. Even if Mme Gouirand helped both herself and her mother, it would be expected that she would think about her own

experience first.



Speaking about Espartero, who died in the 19th century, Mme Calment said that she took pictures but then withdrew this claim. We know that Yvonne's son Freddy was an amateur photographer. The pictures of Jeanne reading a book, playing the piano and leaning on her hand are home photos which could be taken by Yvonne, Fernand or Maria. It is however extremely unlikely that Jeanne used a camera at a bullfight in the 1890s.



Speaking about WWI Mme Calment said that she was quite young at that time and heard about it from her parents. She also said that she was about 40 years old when she travelled to Paradou villa with Yvonne and Freddy (that was in 1933).

[7] (6 and 13 July 1994, 15:27)	Translation
VL: Vous avez des souvenirs de la guerre de 14? MC: Vaguement ...assez jeune oui, j'en en entendais parler des parents.	VL: Do you have any memories of the war of 14? MC: Vaguely ...quite young yes, I heard about it from my parents. VL: In the war of 14,

VL: A la guerre de 14, vous aviez 39 ans.	you were 39 years old.
MC: Haha, vous saviez bien que moi.	MC: Ha-ha, you know better than me.



Nobody is infallible, but she always made mistakes that put her in the place of Yvonne rather than Jeanne who she claimed to be. Her words and intonation after making these slips give away her embarrassment.

Often, she would try to cover by feigning confusion and forgetfulness. The voice of the interviewer Dr. Lèbre also shows irritation and disappointment, yet he never admitted to the obvious implication that she was fabricating her testimony.

Conclusion: In these passages it is clear that she slipped back into speaking as her true self, Yvonne, not Jeanne. This is too much to explain as simple confusion. It is very clear evidence of her real identity. We strongly recommend the reader to listen to these episodes.

We assign those cases presented here which were not covered in previous sections an additional likelihood ratio of 100 in favour of the switch.

ANALYSIS OF RECORDED TAPES

Mme Calment's testimony appears much clearer on the recorded tapes than it was in her biographies, media interviews and the validators' books which have been sanitised by editing out most of her confusing and inconsistent responses and also included distortions which helped in revalidation of her authenticity by various researchers in 2019.

The tapes provide a new light on such cases as Madame Benet, Espartero, Férigoule or Nevière which were viewed as evidence against the switch both by her original validators and more recent supporters.

We believe that the available 15 hours of recordings constitute a unique collection of material for psychologic research. Our interpretation of Mme Calment's testimony is that it is made up of several components.

She had very few memories of Jeanne's childhood. As Yvonne, she picked these up in family conversations, or made them up entirely, but based on real events. These

include the launch of her father's last ship, her meeting with Van Gogh, the performance of Espartero, the ball at age 16, the dressmaker Chambourdon, the location of Jeanne's home in the Roquette, Mme Benet's pension, music lessons with Cesarie Gachon, and the failed experiments by her physics teacher Du Bourguet.

Some of these are revealed as falsehoods because we have found details that are inconsistent or historically wrong.

Mme Calment also remembers some details about Jeanne's life starting when Yvonne was a child after 1900: Jeanne's art lessons from Férigoule, painting flowers on folding screens, Fernand's mobilisation in the town during WWI, the shop employees, the mayor Jean Granaud, pharmacien Martel, Dr. Béraud and Dr. Urpar.

Some of these stories expose her while others are correct. They show that her memory was fine but it does not directly tell us much about her authenticity. However, the contrast between the clarity of these recollections and the dearth of details from Jeanne's childhood is telling.

There are some memories from Yvonne's own childhood and later life that she tries to pass off as Jeanne's: the walk to school with Marthe Fousson, passing the brevet, her dancing at Alliance Française ball and at Folies Arlésiennes, her wedding, their car, her honeymoon in Paris, hunting with her husband, her stay in Arles with her husband during WWII, her love of furs and jewellery. These are often revealing because details are chronologically out of place.

She knew several stories by heart and recited them vigorously and quickly, some of them on multiple occasions. These include her father saying that *his girl is a boy and his boy is a girl*, the story of Yvonne getting ill after bathing in the Rhône under the supervision of her grandmother, her father or husband blaming her for not having enough fear and the meeting with Van Gogh.

Mme Calment was able to recall certain events, even from Jeanne's childhood, but some things were too much. The most difficult memories were things specific to her life.

She often had no idea about people who would be known to Jeanne like Marcheteau. She struggled even with such close relatives from older generation as Emile Fassin. She had never mentioned the music club Estudiantina Arlesienne and its music director André Marie Bourdelon who was her first cousin, witness at her marriage and a composer who devoted some of his pieces to his "cousine Jeanne."

Mme Calment was not aware of the existence of her older siblings Antoine who died age 4 and Marie who died soon after birth (6 and 13 July 1994 25:55). Most unexpected of all was that she could not remember any childhood friends, or her suitors at balls from her youth.

It was not just the names. She had no recollections of them to share at all. For almost everyone, reminiscences of friends at school are the most durable memories of all. When pressed for names of "copines" or other specific details from her childhood she would

always respond evasively:

"I don't remember," "it's too far back," "I forget," "I am tired," "it's old that," etc. [7] (26 Jun 1992 00:20, 03:30, 07:50).

This amnesia would be surprising for Jeanne but expected for Yvonne.

She was more successful with general historic information, but even there she had her weak spots. She remembered talk of the Dreyfus Affair. It played out in France from 1894 to 1906 but was discussed for long afterwards because of its political repercussions. She could not recall what side of the debate her father was on [7] (29 Jan 1991 02:00).

Nicolas Calment was a councillor known at the time for his controversial job of distributing benefits for the poor in the "*Bureau du Bienfaisance*" located in the Arles hospital Hôtel-Dieu. In 1907 Jeanne was listed as advisor at the *society of mutual help for workers* in Arles led by Countess Divonne.

Later she was involved in the Red Cross campaign to feed soldiers in "*Cantine du Soldat*" at the railway station of Arles which was directed from *Bureau du Bienfaisance*. Jeanne followed in the steps of her father, yet Mme Calment could not remember what Jeanne's father was responsible for (29 Jan 1991 04:00).

She did not recall the death of Victor Hugo which was in 1885 (10 Feb 1993 01:20), the death of Queen Victoria which was in 1901 (15 and 22 September 1994 13:50) or the government of Émile Combes which was from 1902 to 1905 (10 Feb 1993 02:20).

The periods for which her memory was poor were also noted by Garoyan in his thesis written in 1988.

[55] p29	Translation
Sa mémoire des faits anciens est déficiente, surtout pendant son enfance et après l'âge de cinquante ans.	Her memory of old facts is deficient, especially her childhood and after the age of fifty years.

These blank spots are noteworthy because for other times her memory is usually so much clearer. Only dates are a source of uncertainty and confusion at other times. For Mme Calment as Yvonne these periods that she forgets are easily explained. Yvonne had limited knowledge of her mother's childhood and would like to avoid talking about the time of their illness and identity swap which happened after her marriage when Jeanne was 50 years old.

Mme Calment was aware that she sometimes made mistakes. For example, she made a far-fetched claim that she took pictures while watching the bullfighter Espartero but then retracted. She spoke as Yvonne on numerous occasions but usually corrected herself or quickly changed her story after being corrected. Sometimes, she used a clever trick for covering her mistakes by feigning confusion.

A long and difficult interview with her validators on 27th November 1992 didn't go quite right. After making multiple mother/daughter slips while talking about the

balls and her painted paravent, Mme Calment was tired and even refused to answer any questions about Van Gogh.

She also pretended to be unable to distinguish between WWI in 1914 and the later WWII when the town was bombarded. Dr. Lèbre asked her several times to try to make the distinction but she always pretended to know of only one war. Even when he asked about what happened in 1870, she said it was the *"Guerre de 14"* instead of the Franco-Prussian war.

This smokescreen of confusion helped her get away with numerous unintentional errors because the validators thought that she just had false or mixed-up memories. During other interviews when she felt more confident (that usually happened when Jean-Marie Robine was not present), she was perfectly lucid and astonished the interviewers with her prodigious memory. In particular, Dr. Lèbre was impressed by her ability to recite by heart her favourite fables by La Fontaine [7] (10 and 15 June 1994 01:45).

Another indication of her high cognitive capacities, her famous sense of humour and numerous aphorisms have helped Mme Calment to become an international star. She herself said that the main secret of longevity was to keep smiling.

"There is only luck for the scoundrel. I think I would die laughing." [24]

Talking about the *"Tree of Life"* ginkgo planted in her honour outside the window of her lakeside bedroom,

she said

"I like to look out and watch it grow old." [35]

When a journalist expressed hope to see her next year she replied:

"Why not, you don't look so unhealthy to me." [18]

Michel Allard claimed that

"Such intellectual alertness is almost more astonishing than her age itself." [34]

When she was asked if she remembered something that she should, but couldn't, Mme Calment would coyly respond with *"peut-etre"* or *"vaguement"*. She was very careful to not give dates (other than Jeanne Calment's birthday or the start of the WWI). Dates of events would have made everything much clearer. She preferred to give the impression that she never counted the days and could not even give the present year.

When they tested her cognitive skills, she did very well. The neuropsychologist Karen Ritchie who studied Mme Calment in 1993 when she was 118 concluded:

"There is no evidence at present of senile dementia... Executive functions (principally controlled by frontal areas), while having deteriorated from young adult levels, appear to be relatively spared... This raises the question of whether an initially high level of intellectual ability may have been a protective factor." [61]

She could do additions, subtractions and counting in her head. Elderly people with problems of dementia often cannot hold medium or short-term memories, but this was not the case for Mme Calment. She could keep track of a conversation even if her poor hearing often made it difficult.

She had slurred speech because of a loss of teeth, but her grammar was mostly complete, and she had a fine vocabulary. Mme Calment also learnt new names and remembered recent events such as her birthday celebrations. When she appears to get confused it is usually after she has said something that risked giving her away as Yvonne. She was covering up.

We understand that Mme Calment had much more interesting memories she could have talked about but unfortunately didn't because she was afraid it would give her away.

Conclusion: If Mme Calment's testimony is analysed carefully with knowledge of her historical background, it becomes possible to untangle her deception and piece together the real story of her life.

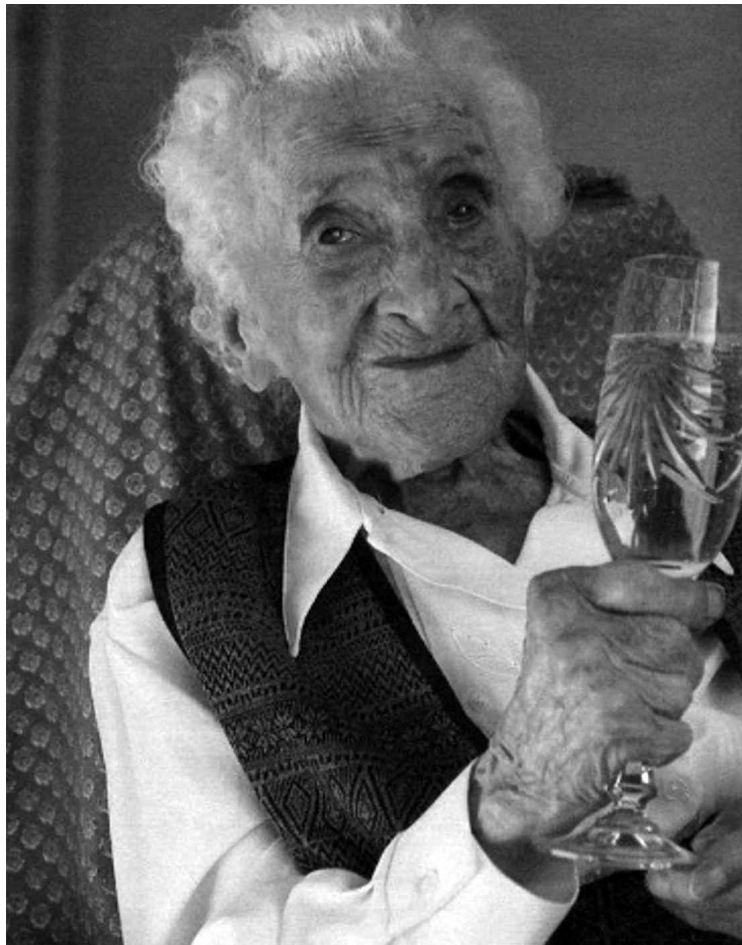
She had a simple strategy to answer the interviewer. If she knew Jeanne's correct answer to a question, she would use it. If she did not, she would consider substituting her own equivalent experience with vague details so that it would not be obvious. If this was not possible, she just said she could not answer.

On the frequent occasions when she slipped up and noticed, she would then throw up a smokescreen of

confusion so that the validators put it down to a cognitive lapse. This in itself provides strong evidence for the switch.

Mme Calment's failure to recall the names of her friends from childhood and youth contrasts with the clarity of other recollections and is a strong indication of her true identity. We reflect the selectivity of her memories with the likelihood ratio of 5 in favour of the switch.

LIFESTYLE



EXCEPTIONAL HEALTH



Mme Calment sits and stands unassisted in the retirement home "Maison du Lac", 1986-1987

When Mme Calment was still alive, the hypothesis of identity theft was not yet considered as a "crazy conspiracy theory".

According to Nicolas Brouard, it was discussed at a scientific meeting on centenarians at the Abbey of Fontevraud in early 1990s, and a gerontologist suggested that Madame Calment looked much older than the centenarians she used to visit. This assessment was at odds with what people saw with their eyes, so the assembly chuckled quietly.

Calment's doctor in Maison du Lac, Victor Lèbre, was astounded that her organism functioned very well and that she was not at the slightest bit senile [62]. It was only in her final years that she started resembling a supercentenarian, but many old people look like that shortly before death.



Jean-Marie Robine and Victor Lèbre with Madame Calment in her final years [33]

Mme Calment's remarkably good health for her age was legendary. It is said that at 85 she took up fencing. Several reports claimed that she did not give up the bicycle until 100 years old [63, 64], but this was probably an exaggeration.

According to Henri Bellin, her neighbour in Paradou, Mme Calment gave his father her bicycle with wooden wheels before she left her villa in 1960s. It is possible that she used it to go to Arles from Paradou and back after Freddy died in 1963, but the bicycle was abandoned after a fall when she hit the break too hard [1] p117. This implies she rode it until about the official age of 90.

The bicycle was also mentioned in the interviews with Mme Calment [7] (25 May 1994 23:25, 6 and 13 July 1994 03:26).

In 1975 she could still descend lightly the steps of St. Trophime and walk home at a good pace [18]. When the Mayor of Arles met her for her hundredth birthday, he was astonished that she looked hardly 80. According to Jeanne Calment's distant cousin Gilberte Mery, the

mayor had in fact taken her for the daughter of the centenarian [65].

A medical study said that her cholesterol levels were that of a woman of 30 years old in good health [66]. This was later exaggerated to "her medical tests were like those for a 30-year-old." A psychiatric study at age 118 found that her language capacity was in a range that is typical for an 80-year-old [61]. Michel Allard claimed that "*her intellectual alertness is almost more astonishing than her age itself.*" [34]

All of this was despite a lifestyle that did not always seem ideal. She quit smoking at 117 because her poor eyesight embarrassed her when she tried to light a cigarette [35]. She drank a glass of Porto each day and was delivered chocolate by the truckload:

"I have an ostrich stomach. The doctor can't believe it. My liver likes chocolates as much as I do. So, we share." [24]

At 102 she could still write a letter with flowing handwriting and no sign of degradation in her signature. She lived at home looking after herself until the age of 110 despite a steep staircase that she had to climb to reach her apartment. Henri Bellin recalled for Lamy:

"At my daughter's wedding, she was 108 years old. My father gave her his arm to climb the stairs of the town hall of Arles. Jeanne quickened her pace: 'I will climb better than you!'" [1]

When she finally entered the retirement home, she still preferred to take the stairs rather than the lift. She could walk unaided with a cane [14] until a fall at age 115, and she used a taxi to visit the Calment's family grave at Trinquetaille.

Mme Calment liked to brag about her exceptional youthfulness:

"I have no wrinkles (except the one I am sitting on), not even crow's feet when I laugh." [10] (In fact, the crow's feet can be seen on some photos of Jeanne, which subtly distinguishes her from Yvonne and Mme Calment).

"And my chest, look at my breasts, they don't have the shape of a tobacco pouch. They are like two little apples. My weight has been the same throughout my life." [10]

The Doyenne of Humanity had generously shared some secrets:

"When I was young, I was interested in beauty creams. Once there were celebrity recipes in there. One of them praised olive oil. I adopted it. All my life, I have treated my skin with olive oil, with just a little cloud of powder to finish." [10]



We found such a star recipe in Vogue issue from 1st July 1932. A "beauty investigation" discovered that

"Madame Lucien Lelong scrubs full body with olive oil."

Lucien Lelong was the son of the owner of a textile shop who became a famous couturier.

Natalie Paley (1905–1981), granddaughter of the emperor Alexander II had barely survived the Russian revolution. After fleeing to France, she had worked as a saleswoman in the Lelong perfume department and then became his wife from 1927 to 1937.

Natalie had many suitors including the famous writer Erich Maria Remarque whose another passion was Marlene Dietrich – also a role model for Mme Calment.

Despite the olive oil recipe, Mme Lelong did not live very long. On the other hand, Madame Calment's official lifespan exceeded the maximum age of her ancestors by 27 years. Was it the power of the powder she applied after the olive oil?

One feature that was an exception to slow aging was her hair. Photographs show Mme Calment being grey haired from 1937 and completely white haired by the 1960s. Many people judge a person with white hair to be elderly, regardless of other indications.

This can be a mistake: 3% of Europeans have greying hair by their thirties but this is not well recognised because it has been traditional to use dye to restore hair colour, especially for women. This helps to explain the paradox that if Mme Calment was Yvonne, she was able to pass for her mother from 1934 to the 1950s, but then seemed surprisingly healthy for her age.

Didier David said that he saw Mme Calment after WWII. To his eyes she

“appeared like a tiny grandmother, dressed in black, very alert and lively.” [60]

To a young boy the white hair and small stature made her look like a grandmother, yet he noticed how alert and lively she was. Despite being so healthy Madame Calment was already considered to be very old in 1951: according to J. F. Reymond, son of the buyers of her farm Rouiron in Saint-Martin-de-Crau, she was already aged at that time, so his parents negotiated with her son-in-law Joseph Billot-Calment and did not meet her until the signing of the sale.

Another obstacle to Calment's social interaction was her supposed deafness. She really had some problems with her left ear, but she could hear with the right one when she needed that. As she had told De Cock,

“I am deaf when I want.” [23]

Her doctor believed that her deafness was fluctuating with time:

“When Robine approached Doctor Lèbre and explained that he wanted to interview Calment, Lèbre replied that it was too late; Calment, he said, was completely deaf. But he agreed to let him meet the grande dame anyway. They walked down a long concrete corridor and into a small and comfortable room.

'Hello, Madame Calment,' Lèbre said. 'Good morning, doctor,' she answered without hesitation.

Lèbre was so shocked that he grabbed Robine by the arm and rushed him down the corridor back to his office, where he interrogated the nurses about Calment's hearing. Apparently, she could hear quite well at times, but experienced periods of near deafness; Lèbre had most likely mistaken one of those interludes for a permanent condition.” [67]

Mme Calment's health was one of the factors that led to Novoselov questioning her longevity in 2018:

“I am a geriatrician, and in my work, I rely on visual assessment a lot. My eyes were telling me that Jeanne didn't have the hallmarks of frailty that would correspond to her official age, such as

the fact that unlike other supercentenarians, she was able to sit straight in her chair without others' help. I didn't see enough signs of dermal atrophy nor atrophy of subcutaneous tissue." [68]

Jean-Marie Robine refuted Novoselov's observations citing a study which found that for supercentenarians

"Aging-related diseases and syndromes that increase mortality risk must be delayed towards the time of death." [39]

We do not accept that this fully covers the situation. Novoselov had compared Mme Calment at 110-117 to those who lived to 117 such as her successor as the oldest living human, Marie-Louise Meilleur (1880-1998) and the difference was still striking, that is *"20 years difference"*.

In effect, the fact that she was very healthy at an old age is correlated to the fact that she lived to 122. Either fact on their own is evidence of an unusual situation that must be accounted for in a Bayesian analysis, but the two probabilities cannot be compounded as if independent.

However, the exceptionally good health of Mme Calment in late life does provide some additional corroborative evidence that she was not as old as claimed.

Conclusion: Madame Calment's good health was exceptional and might have raised suspicions at age 80 to 100, but once we have taken into account the

small probability of living to 122, it does not add much further evidence to the case. We assign this evidence the likelihood ratio of 1.5 in favour of the switch.

ACCIDENTS



Madame Calment in 1990 after the hip fracture

"Jamais malade avec J majuscule" – "Never sick with a capital letter." [24]

Mme Calment often said proudly she had never-ever-ever been ill. We believe that in making this claim she was hiding the bout of tuberculosis in her distant past.

Her validators were aware that this was an exaggeration: she had suffered from some migraines and conjunctivitis which could originate in the roller-skating accident in her youth.

"Migraines are a luxury disease," she told Paris Match [10].

Also not counted were three accidents involving broken bones. At the age of about 60 ("60 years ago", "at retirement age") she broke her ankle [2] p18, [69]. In 1996, after meeting Mme Calment, Brian Reade from the Daily Mirror provided a quote with some inaccurate information:

"I have only been sick twice in my life: I broke an ankle when I was 60 and a hip and elbow when I was 100 (sic)." [35]

We are never told how this happened. Jeanne Calment would be age 60 just a year after the funeral for Yvonne, so this incident is assumed to have taken place between the funeral and the start of WWII.

According to Garoyan it was her tibia that was fractured [55] p23. He did not specify a date but described it

as having taken place *“some years before her entry into the retirement home.”* This is vague but 50 years would normally be characterised as some decades, not some years.

At the age of 100 she had a fall from the steps of St. Trophime [1] p83 and fractured a leg [2] p11. Garoyan describes this as 'sometime after' the broken tibia.

“Barely out of plaster, she began walking again, fearing nothing.” [2]

It was said that in the winter of 1985 she “had frostbite”. Legal settlements between Taque and Calment required the plumbing communications to be separated for their apartments. It is possible that the difficulty of doing this played some part in her not heating her flat.

To avoid going out with a bucket to fetch water from the well she tried to unfreeze pipes and accidentally started a small fire. It was this that led to her being admitted to the retirement home.

She had one last accident at the age of 115 when a fall resulted in a broken hip and a fractured elbow. This time her recovery was less complete, and she was confined to a wheelchair until her death.

Dr. Lèbre discusses some of these fractures in his interviews [7] (15 and 22 Sep 1994). He recalled Dr. Molinier who was a friend and colleague of Freddy Billot. Lèbre said that it was Dr. Molinier who treated her. He then reminds Mme Calment that she had broken her leg and that another time she had broken her foot.

These must be the accidents at age 100 and 60 respectively. It is likely that Lèbre was able to look up medical records for Jeanne that recorded this medical history. He might also have consulted with Molinier. The implication seems to be that Dr. Molinier treated her for both. However, Dr. Maurice Molinier lived from 1926 to 2016. He would have been 9 years old when Jeanne was 60.

It is possible that Dr. Molinier only treated her for the fracture at age 100, but it is also possible that when she described her broken ankle as being at age 60, she was speaking as Yvonne. This would mean it happened around 1960 when Dr. Molinier was qualified as a doctor.

We know that Mme Calment has abandoned her bicycle around 1960s after an accident. She had replaced the external front rubber brake on her Peugeot bike with a modern one because the old system caused the tires to wear out fast. The new break could be improperly adjusted and Mme Calment fell over the handlebar. It could be then that she was treated by Molinier.



Peugeot model "A" from 1905 with front rubber break used by Mme Calment

It should be noted that if Mme Calment was really Yvonne, Dr. Lèbre would still be looking at Jeanne's medical records. Jeanne was treated for tuberculosis in Leysin and when she relapsed in Arles, she had swapped with Yvonne. There would therefore be no record of tuberculosis on her files. Unfortunately, he had never asked her about the doctor who treated Yvonne.

Conclusion: There is some tension between the described age at which Calment broke her ankle and her doctor's claim that she was treated by Molinier. This would be resolved if she was giving the age of Yvonne instead of Jeanne. We assign this evidence the likelihood ratio of 1.5 in favour of the switch.

THE AUTHORITARIAN BOURGEOISIE

A central theme of the Jeanne Calment folklore is that she was born into a bourgeois lifestyle and never had to work. Arlesians knew her to be a difficult character, and some called her "*une peste*".

"I hope you've remembered to get my shampoo,' she told nursing staff in a commanding tone, 'and my jewelry. I'll be needing it for the photographers.'"

"A member of the 'haute bourgeoisie', Calment has for most of her life been used to the best food and wines and has a penchant for foie gras and daube, a Provençal stew made with olive oil and garlic. Recently, the doctors decided that she ought to avoid such rich dishes. Although Calment is frail, blind, and partly deaf, she is quite capable of expressing her opinion on matters that she considers important."

"There is a very 19th-century type of hierarchy in her relationships with other people,' the Maison du Lac's doctor, Victor Lèbre, says. 'She treats the employees here as servants. With me, it's different."

I'm an equal because of my title. But even so, it took 10 years before I could call her Jeanne." [70]

"I didn't like her. I didn't like her bourgeois air, her authority, her condescension, her meanness. I was against the little privileges that were given to her. It annoyed me to see all these people circling around her pretending to be a lovely old lady." – Claudine Serena [71]

"A caregiver was doing Calment's toilet, the first time that Laure Meuzy, senior health manager, entered her bedroom. 'My butt greets you,' throws Madame Calment. 'She was proud of her body,' testifies Mme Meuzy." [72]

At the retirement home Mme Calment treated her carers as servants to do her bidding, earning her the nickname "Commandant j'ordonne" (Commander I give orders) [73].

When asked by a schoolchild how she washed the dishes she snapped back

"With spit my dear; I just needed to command." [2] p15.

She also drank port, ate chocolate in abundance and smoked expensive cigarettes, habits that were remnants of a well-healed past. There was a rumour that during the WWII Mme Calment threw the milk left in her glass into the sink, while others had ration coupons. Once she was said to have refused the visit of the mayor because he was a communist [1].

Jeanne had indeed become wealthy after marrying her second cousin Fernand whose family ran one of the largest drapery stores in Arles, a centre for grand fashions of the day, but what of her formative years? Had she really grown up spoilt by servants who would follow her bidding?

Certainly, this was the case for her daughter Yvonne. The census, taken every five years after her marriage, shows Jeanne's family always had one or two live-in servants to do the family chores.

The names of the servants seemed to frequently change from one census to the next, perhaps a sign that working for the Calment household was a demanding role. Their neighbour Janine Kimmerling (1924-2015) told Lamy that

"Mme Calment was quite an authoritarian person who was always served during her life. She was not to be trifled with." [1]

When talking about the comfort she enjoyed living with Fernand, she slips and forgets that it was caused by the wealth of her husband, not her parents:

[7] (25 May 1994 10:35)	Translation
VL: Quand vous avez était mariée, vous vous êtes installé à rue Gambetta? MC: Bah, bien sûr,	VL: When you were married, you moved to rue Gambetta? MC: Well, of course, a nice house, my parents

une jolie maison, mes parents étaient aisés ils avaient une belle maison.	were well off, they had a nice house.
VL: Mais là c'était chez votre mari? A la rue Gambetta?	VL: But that was your husband's house? In rue Gambetta?
MC: Ah c'est plus vieux ça!	MC: Oh, that's old!
VL: Vous vous êtes installé quant à la rue Gambetta?	VL: You settled on rue Gambetta?
MC: Oh ... sais pas.	MC: Oh ... I don't know.
VL: Vous ne rappelez pas. La vie avec votre mari vous aviez beaucoup de confort aussi?	VL: You don't remember. Life with your husband, had you a lot of comfort too?
MC: Oui, bien sûr, mes parents étaient aisés.	MC: Yes, of course, my parents were well off.

In her childhood, things had not been quite the same for Jeanne Calment. In 1876, the year after she was born, there was no domestic help recorded on the census. Five years later the situation had not changed, but by 1886, when Jeanne was eleven years old, the family moved to a larger apartment, and they did have a live-in maid. She was Marguerite Minaud, a cousin of Jeanne's mother. She remained with Jeanne's parents until they died and was clearly regarded as one of the family.

Mme Calment's personality was that of someone born into a life of servants and leisure. She certainly painted

her upbringing that way, and her attitude towards the nurses who cared for her suggested the same.

This nature does not at all fit the background of Jeanne who was born into a hard-working family with a respect for the working classes during her formative years and who was an advisor at a society of mutual help for workers in Arles at the age of 32. It much better fits her daughter Yvonne who only ever knew the bourgeois lifestyle.

Jeanne looks more modest than Yvonne on her photos. Claudine Serena who cared for Mme Calment in the nursing home, didn't recognize her in the picture of Jeanne:

Facebook Counter investigation group	Translation
Claudine Serena: Ce n'est pas Jeanne Jeanne qui poserait sur une photo visiblement prise par un photographe sans ses bijoux? Même pas en rêve De plus ce n'est pas du tout son style de robe (trop décolleté) ni même le tissu. Et cette dame fait le triple du poids de Jeanne.	Claudine Serena: It's not Jeanne Jeanne who would pose on a photo taken by a photographer without her jewellery? Not even possible In addition, it is not at all her style of dress (too low neckline) and even the fabric. And this lady is triple the weight of Jeanne. And then the face is not the same. Jeanne

Et puis le visage
n'est pas le même ...
Jeanne avait le bout
du nez qui "tombait".
Et le regard si
seulement un jour
elle avait pu avoir un
regard aussi doux.....
lol

had the tip of her nose
which "fell". And the
look... If only one day
she could have had
such a sweet look. |
laughing out loud|

A drooping nose is common in old age and the authenticity of the picture from a 1997 Paris Match article [30] as Jeanne Calment is not in doubt, her face matches that of earlier undisputed photos of Jeanne such as one from Martine Crouanson's collection.

Claudine Serena's failure to recognise her can be attributed to the identity switch rather than any misidentification of the photo. It was her dress style and nature that distinguished her from Mme Calment more than her look.

To understand the family better it is necessary to look back further. The ancestral Calments arrived in Arles in the seventeenth century as rich merchants from Pouzilhac, a small town to the North. They married into local bourgeois families and became *gardians*, raising bulls for the corrida at places such as the *Mas Neuf aux Sansouires*. By the time of the French revolution much of their former wealth was lost.

The haute bourgeois were not just richer, they were a different class. In Arles they spoke pure French even

among family, while lesser people used the provincial dialect at home. The Calment dynasty took to ship building on the quays of Trinquetaille. They were skilled but uneducated carpenters, hardworking and successful in their own fashion, no longer in the ranks of the bourgeoisie to which they had formerly belonged until the end of the 18th century.

Jeanne's father Nicolas Calment was born in 1837 at a time when opportunities were changing. The next generation including Jeanne would have the benefit of free education. Nicolas was the last of the Calment ship carpenters. He did well; building on the work of his forefathers he became a renown constructor and made a modest fortune. Even then, he had at best risen to the ranks of the petite bourgeoisie.

By the time Jeanne was born the family had moved across the river to the quarter of La Roquette. Despite their financial success they remained working class in spirit. Nicolas had respect for his employees and would have passed this on to his children. After he launched his last ships, he was a socialist politician, holding a position as administer of the benefits office which helped workers in hard times. Jeanne followed his steps, becoming an advisor at a society of mutual help for workers in Arles in 1907.

As a child Jeanne had been a tomboy, more adventurous than her brother, yet she seems to have lived a sheltered life. She was able to study art and music at school. Mme Calment claimed she passed her school brevet, but when we searched the local papers, she was not listed along with those of her class who made the grade.

Jeanne's destiny ensured that it did not matter.

Her father's cousin Jacques Calment had forsaken his family's ship building industry early in life to become a draper. He had the good fortune to marry into the bourgeois Felix family. His wife Maria had grown up with multiple servants. Her sisters married notable lawyers including Emile Fassin whose great uncle was guillotined by the revolutionary tribunal in 1794, and whose great-grandmother Marie de Chalot was a great-granddaughter of Dorothee de Porcelet-Fos from the noble Porcelet family.

Napoleon had disrupted their social rank, but they maintained something of their bourgeois culture. Jacques's son Fernand took a liking to Jeanne and so by marriage she too entered the world of upper-class society.

Mme Calment used to boast that she was never afraid of anything, unlike her mother who was afraid of everything [7] (7 September 1994 19:15). With her passions in arts, music and reading and her sweet look on photos, Jeanne seems to fit Mme Calment's description of her mother perfectly:

[7] (6 and 13 July 1994 17:43)	Translation
MC: Maman était mignonne. Elle n'avait pas assez de volonté. Elle était gentille et charmante.	MC: Mum was cute. She didn't have enough willpower. She was nice and charming.

Mme Calment herself, on the other hand, had a completely different character. The death in 1934 has definitely changed "Jeanne" one way or another.

Conclusion: Jeanne Calment was born into a family with a father who had succeeded through hard work. They did not have live-in servants in her early years and would not be considered bourgeois. She married into a wealthier family with multiple servants that would certainly count as higher class.

Mme Calment's character seems out of keeping with Jeanne's childhood background. Yvonne's life would have been a much better fit. We assign this evidence the likelihood ratio of 3 in favour of the switch.

THE MASCULINE HUNTRESS



Both Yvonne and Mme Calment seem to follow the masculine style of Marlene Dietrich

Mme Calment liked to tell people that she went hunting with her husband. She hunted in the hills, “in the beautiful sunshine”, for rabbits, wild boar, and partridges.

“It was said that it would mess up your hair and damage your skin. Did you see that? I haven't got a wrinkle.” [24]

She had her own 18mm rifle and joined her husband's hunting society [2] p67, [3] p66, [7] (29 Jan 1993 08:00). It was normally a men-only club, but she claimed that they let her in under the name “Jean Calment” [9] [18].

There is no reliable quote that tells us when this was, although she spoke of it as being early in her marriage and her biographers have speculated that it could have been when she was 20, or at the start of WWI [8] p88, [9].

When asked about her gowns at age 20 she said that she was a huntress and often dressed like a man. A masculine attitude to life was part of her nature, she told validators.

We know that Fernand did belong to a hunting club. He was its vice president in some newspaper reports from 1907. Would Jeanne really have been allowed to join at that time?

French society was very male dominated. In newspapers women were always referred to by the name of their husband. Their roles in society were very different from those available to men. In other European countries women were allowed to vote soon after WWI, but in France they had to wait until after WWII.

In times of the Great War, the Mayor Jean Granaud gave a talk in Cours Secondaires de Jeunes Filles where Yvonne was studying, encouraging the girls to act bravely.

He gave examples of Joan d'Arc, the military leader of medieval France, and Joan Hachette, a young girl from Beauvais, who, in the 15th century, with an axe in her hand, had galvanised the men at the walls by her determination and thus contributed to the rout of the Duke of Burgundy's armies which were besieging the

town [56].

In more modern times there had always been a few exceptions to the patriarchal rule, like George Sand and Marie Curie. Yvonne had a cousin Marthe Crouanson (1902-1972) who successfully defended a doctorate in law in 1925. Her grandmother Maria had also been a role model as the matriarch of their *Grand Magasins*, even if Jacques and Fernand were the official male leaders.

Society was slowly changing. In WWI a women's suffrage group formed within the communist party, but it was not until Coco Chanel wore trousers in 1928 that a wider women's movement took root in France.

Jeanne Calment was interested in art, music, and literature. There is no sign of any masculine style in her clothing and look as seen in any of her photos. However, she might have been a tomboy in her youth because Mme Calment would sometimes say that according to her father,

"His son was like a girl and his daughter like a boy."

As she grew up, Jeanne was pushed into pursuits seen as more feminine. Yvonne might have taken after her mother but went further in keeping with the times and changing fashion. She appears in a trouser suit in her 1931 Leysin photo. In a wedding photo from 1926 Yvonne is seen in a provoking pose so that her strong legs are visible.

"I dressed like a guy. We crossed the highest passes,

for which I got the nickname of steel calves." – said Madame Calment. "I had legs of steel. Now, steel, it buckles." [24, 74]

Both Yvonne and Mme Calment seem to follow the masculine style and even hair colour of Marlene Dietrich.

Mme Calment does not stipulate when she took up hunting. It is usually assumed that she started with her husband soon after marriage, but in one interview she was asked if Yvonne liked hunting.

"At that time, we did not think about it. I didn't think about it myself." [7] (25 and 26 Feb 1993 16:15).

This suggests that it was something that happened later after Yvonne's marriage rather than Jeanne's.

In 1938 Joseph returned to the army. He fought to defend France early in the war and was said to have been taken as a prisoner. The store was closed and the family could have spent time in their villa in Paradou or their farm in Saint-Martin-de-Crau.

This seems like the most likely moment when Mme Calment would have taken up hunting with Fernand, both for fun and to get meat, which was in short supply during the war. When Joseph came back home and Fernand died, she could continue hunting with her official son-in-law.

She said that her husband had a hunting dog called Liberty (after a satin sold by Maison Calment), a spaniel.

He lived in the apartment and was sweet [2] p70, [3] p69. There are two photos of Mme Calment taken during the 1940s in which she is carrying a small dog that could be a Jack Russell terrier or a spaniel-terrier cross.



These breeds were used by hunters to chase rabbits from their holes. She only mentioned one dog, so it is possible that this is indeed Liberty, but it is also possible that they had an earlier one.

These pictures reinforce the idea that it was only after the switch that Mme Calment became a huntress. It is possible to imagine that Yvonne was disappointed in her mother for losing her early masculine nature. After she assumed Jeanne's identity she acted to correct it.

Conclusion: Jeanne was known in her family as a tomboy, but social constraints of her time would confine her behaviour. In the 1920s after Yvonne married, social norms began to change so it is more likely that Yvonne and not Jeanne would become a hunter.

Mme Calment's masculine character also seems to fit Yvonne much better. We assign this evidence the likelihood ratio of 3 in favour of the switch.

ARCHIVES DESTROYED

Photographic evidence is one potential means to determine whether Mme Calment was Jeanne or her daughter Yvonne. From photographs taken before and after the alleged identity swap it might be possible to compare likenesses.

Unfortunately, this effort was hampered by the actions of Mme Calment herself who asked Josette Bigonnet, the daughter of Yvonne's sister-in-law Nenette Billot to burn her photographs and other documents [8] p65. It is not known exactly when this happened, but it was between 1985 when she moved into her retirement home, and 1988 when Paris Match reported that Josette withheld just six photos from the fire. Some sources including Wikipedia wrongly report it as having occurred later. Lamy said that

"Jeanne did not forget anything. But rather than entrust her personal documents and family photos to the municipal archives, she preferred to destroy them." [1] p141

The validators argue that Mme Calment's wish to destroy her photo albums was natural in late life [2]. People often want to protect their past from public view, but what exactly did she want to hide? We know that the family were taking their own photographs

from the 1920s, in addition to the professional family portraits that they had commissioned before.

Mme Calment was happy to be interviewed by journalists and scientists. She displayed some of her pictures on her wall and showed them to the press. Her collection would include photos of the family she tragically lost. If they were just too personal for public view, she could have given them to her relatives for safe keeping. Yet instead, photos and documents from her earlier life were consigned to the bonfire. As a result, Jeanne's handwriting (apart from signatures) from before 1934 is not available to compare with that of Madame Calment.

Zak raised this destruction as evidence of foul play in his early paper [5]. This was criticised by le Bourg as uninteresting speculation about Mme Calment's intentions [75, 76], but many people comment that they find her actions suspicious.

Anyway, as Bulgakov remarked, *"manuscripts do not burn"*. Fortunately, some copies of photographs were in the possession of other relatives and have survived. We are grateful to those who have allowed their pictures of Mme Calment to be shared in public.

There are also a few early images of both Jeanne and Yvonne that have come to light from various sources including the online flea markets. These give us an opportunity to see if Mme Calment after 1934 looked more like Jeanne or Yvonne from before, but there are still some gaps.

Conclusion: Mme Calment's order to destroy her photos

and other documents suggests that she might have been trying to hide something that could have revealed her identity. We assign this evidence the likelihood ratio of 2 in favour of the switch.

APPEARANCE



Yvonne Arlésienne Jeanne

Sometimes it is easy to recognise someone from a photograph. Photographic evidence can therefore be a useful way to eliminate the possibility of an identity switch and strengthen longevity validations.

For example, a series of photographs of Sarah Knauss

from age 19 to shortly before her death at age 119 make the possibility of a switch after her marriage very unlikely, and the Lodz ghetto photographs we located of Israel Krystal's younger brother ruled out the possibility of a war-time identity swap between them [77].

In the case of Mme Calment however, the task is not easy. The pictures available span many decades, and they are not perfectly clear. There are only a few images from near the time of the potential identity switch and we don't know the date for most pictures of Jeanne.

Appearance changes with age. A person's nose can droop while the nose bump can become more prominent, eyes get deeper as they get older, and lips get thinner. We believe that all these age-related changes would make Yvonne appear more like Jeanne.

Such difficulties might be overcome when comparing two people that are easily distinguished, but with Jeanne and Yvonne this is not the case. Comparisons can therefore be misleading.



Jeanne Calment 1895-1931 Mme Calment 1937-1995



Yvonne Calment 1908-1931 Mme Calment 1937-1995

The goal is to tell whether Mme Calment after 1934 looks like Jeanne or Yvonne from before 1934, but as mother and daughter from her double second cousin, their appearances were very similar.



Jeanne Calment 1895-1931 Yvonne Calment 1908-1931

Some people have tried to make a case for matching identity by being selective. It is not hard to find a photo of either Yvonne or Jeanne that looks like Mme Calment.

If someone could make a convincing case that one of the two is *different* from her later appearance, that would have more substance, but the age-related changes must then be taken into account. Different angles, lighting and facial expression can also have an exaggerated effect in a snapshot.

Zak started his investigation when very few photos were available. He noticed a feature on the nose of Yvonne which could be a fibroma distinguishing her from Jeanne [78]. However, when more photos emerged it became clear that this was just a photo defect. Since then, no obvious mark that can be used to easily tell them apart was found.

In our opinion, Yvonne can be distinguished from Jeanne by her wider nose and nostrils. Mme Calment seems closer to Yvonne in this respect. Claudine Serena who cared of Madame Calment in the nursing home and took an active role in defending her authenticity, hadn't recognized her in the photo of Jeanne. In particular, she cited the difference in the nose:

"Le nez de Jeanne était caractéristique ... en gros il était moche lol. Hors cette dame a un joli nez fin. Pas possible que ce soit Jeanne."

"Jeanne's nose was characteristic ... basically, it was ugly. But this lady has a nice thin nose. No way that's Jeanne."

It has been claimed by those who defend Mme Calment's authenticity that the mother and the daughter looked very different and could easily be distinguished. The picture of them together in Leysin is used to support this assertion.

However, both sides of the debate have claimed that comparison of photographs confirm their case. There are plenty of occasions where pictures of Yvonne were attributed to Jeanne in newspapers, journals, books, and

websites, so apparently people saw them as compatible.

Dr. Lèbre thought that the Leysin photo is of Jeanne, and it seems that the validators confused Jeanne and Yvonne on the joint *switch* photo.

In 2019 a lot of time passed until the defenders of Jeanne's record agreed who was the mother and who was the daughter on early photos. Even after the consensus was reached, Robine and Allard managed to misidentify a picture of Yvonne as that of Jeanne in a TV documentary [16].

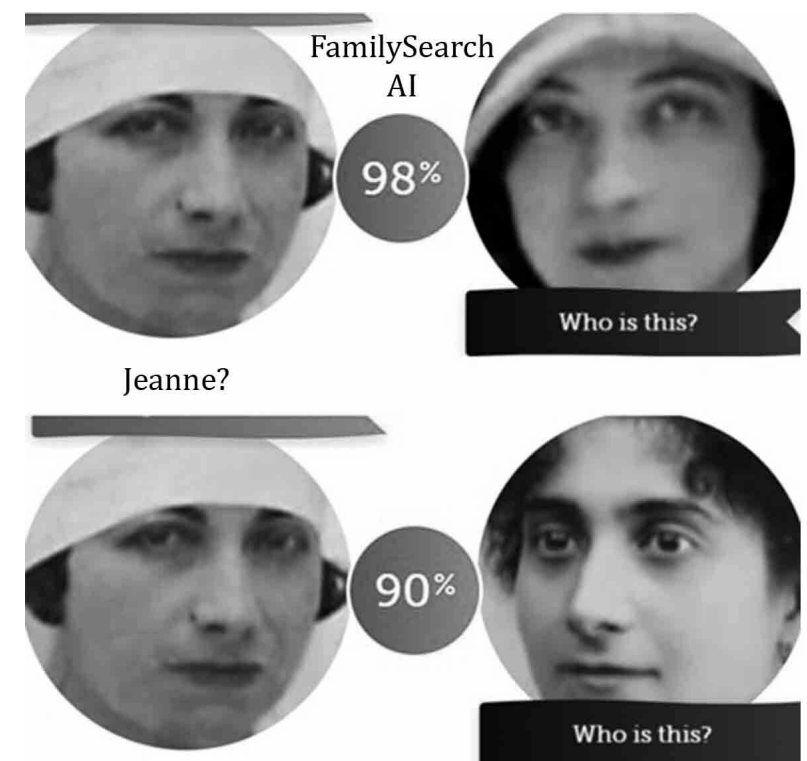
Joseph Billot's father Paul was also rumoured to confuse Jeanne with Yvonne, a century earlier [8].

This implies that they must have looked very similar with differences being only due to age, hairstyle, facial expression, and angle.

The reader is invited to compare the three mosaics above and make their own judgment. In doing so it is necessary to consider that there is a gap of about 12 years between the last pictures of Yvonne or Jeanne, and the earliest clear pictures of Mme Calment after the potential switch.

We believe that both of them had probably used hair-dye to cover early greying hair so the hair colour should be ignored.

For more objectivity it is possible to try AI facial comparisons, but this does not clarify much.



Conclusion: It is our opinion that Mme Calment resembled Yvonne more than Jeanne, but her supporters do not agree [75, 76, 29, 32]. Given the number of photographs we now have, such disagreement must reflect the similarity in appearance of Jeanne and her daughter Yvonne.

With a gap in their visibility in Arles in the time during which the switch was made this similarity made it possible. This assessment is important when one evaluates the relative probability for Yvonne deciding

to masquerade as Jeanne before and then after her death in 1934 and of her getting away with that.

We assign all these probability ratios to be 0.001 with the cumulative ratio being 1 in a billion in favour of no switch.

ROBERT BILLOT'S TESTIMONY



It is much easier for people who knew someone in real life when they were younger to identify them from photos. There is nobody alive now who is old enough to have a clear memory of Jeanne and Yvonne from before 1934.

One person who comes close is Robert Billot, a nephew of Yvonne's husband who was born in 1931. He cannot have many memories from before 1934 because he was too young, but pictures confirm that he was a close friend of Freddy and would be very familiar with Mme

Calment from some date after 1934. He appears in a picture with Mme Calment and Freddy in 1937, on other photos with Freddy as children, and later in a picture at the Paradou villa in 1947.

Robert Billot has testified confidently that a known picture of Jeanne Calment from before 1934 does not appear to him to be the lady he knew only a decade later. His daughter Frédérique Skyronka passed his testimony to the Facebook group defending the authenticity of Mme Calment and was applauded by Claudine Serena who had also doubted this photo as described above.

Facebook counterinvestigation group	Translation
Frédérique Skyronka: Bonjour J'ai montré votre photo à mon père, Robert Billot, qui l'a bien connu cette époque.... il est absolument certain que cette photo n'est PAS Jeanne Calment. Voilà!	Frédérique Skyronka: Hello I showed your photo to my father, Robert Billot, who knew her well at that time.... he is absolutely certain that this photo is NOT Jeanne Calment. Here you go!
Claudine Serena: Ah!!! Merci!! J'en étais sûr!!	Claudine Serena: Ah!!! Thank you!! I was sure of it!!

We repeat that the authenticity of the picture from a 1997 Paris Match article [30] as Jeanne Calment is not in doubt, her face matches that of an earlier undisputed

photo of Jeanne. Only whether or not she is the same woman known to Robert Billot as Jeanne after 1934 is open to question. If she is not the person he was familiar with, then it means the identity switch took place before he knew her well.

Conclusion: Robert Billot believes strongly that Mme Calment was Jeanne because that is what she and Freddy told him. However, his own testimony that he does not recognise pictures of Jeanne from before 1934 as the woman he knew as Jeanne just a few years later is evidence that Yvonne switched her identity to Jeanne. We assign this evidence the likelihood ratio of 2 in favour of the switch.

NOSE SCAR

Two of the pictures of Yvonne at a costume festival in 1923 show that she had a scar on her left side of the nose. This could be a result of the roller skating accident in her youth. Most of the subsequent photos of Mme Calment are not clear enough to show if she had this scar. In later life her face was more wrinkled making such features hard to pick out. However, the scar can be seen in some images.



Conclusion: Although Mme Calment's nose scar is hard to see on most pictures it does tie in with a scar seen in two of the clearest pictures of Yvonne. It therefore supports the identity switch. We assign this evidence the likelihood ratio of 2 in favour of the switch.

SWOLLEN EYELIDS



There are signs that Yvonne had swollen eyelids in several photos from 1923 onwards. This can also be seen in Mme Calment particularly above her right eye.

Mme Calment said that she fell while roller-skating in her youth [2] p66, [3] p66. She also said that she had

an eye infection or conjunctivitis [2] p10, [55]. Although conjunctivitis is commonly seen as bloodshot eyeballs, the gerontologist De Cock said that

Her red eyelids might have been related to past and some chronic irritation or conjunctivitis [23] p211.

This is consistent with the swollen eyelids and scars seen on Yvonne assuming that the switch took place.

According to Garoyan, cataracts were discovered in both eyes at age 20 when she was examined for persistent conjunctivitis [55] p24. Being an infection of the membrane over the eyeballs and under the eyelids, conjunctivitis in itself would not cause cataracts. That could be done by a deeper inflammation such as uveitis. Uveitis can be caused by Mycobacterium tuberculosis when it infects the eyes.

Given that the cataracts did not progress further until old age it is plausible that they were associated with the infection. Considering her later development of pulmonary tuberculosis, it is plausible that the underlying cause of both the eye infection and the cataracts was tuberculosis which later progressed to her lungs. Signs of eye inflammation are visible in photos of Yvonne from her youth, but not Jeanne.

Conclusion: Yvonne's swollen eyelids, especially her right, are visible on several of her photos from 1923 to 1931. They match eye trauma seen on photos of Mme Calment from 1940s and much later. They also correspond to late-life testimony from Mme Calment

and doctors concerning an early bout of conjunctivitis. We assign this evidence the likelihood ratio of 2 in favour of the switch.

PROMINENT HAND VEINS

Examination of hands has been argued to favour an identification of Mme Calment with Yvonne [79]. Yvonne's hands around 1923 appeared to have swollen knuckles and prominent veins. As with her eyes and nose, these could also be symptoms of a non-pulmonary phase of tuberculosis. The infection can cause small blood clots that block veins and cause inflammation.

Prominent veins in old age are very common. However, the gerontologist De Cock reported that

She ordered dresses with long sleeves to cover the blue veins of her hands [23] p203.

This suggests that she had been self-conscious about the problem for a long time.

The prominent veins can be seen in Mme Calment's pictures from around 1960 and as early as 1943. They are visible on Yvonne's hands, but they are not seen at all in a picture of Jeanne leaning on her hand from the 1920s (the one that Robert Billot and Claudine Serena didn't recognize as Jeanne).



Conclusion: prominent veins on the hands of Mme Calment match what we see on Yvonne but not on Jeanne in pre-1934 photos. We assign this evidence the likelihood ratio of 2 in favour of the switch.

HEIGHT



Dr. Lèbre was a head taller than Mme Calment while Mayor Jean-Pierre Camoin was two heads taller

We believe that Yvonne was slightly larger than Jeanne. She was taller, had a more massive skull, and bigger nose, arms, and legs. However, these differences were barely noticeable, so they could easily be overlooked, and difficult to quantify.

Jeanne Calment's ID card from the 1930s gave some details of her appearance including the height of 152cm. Since the card was verified from an earlier passport it can be assumed that these details matched what was given there. This means that even if the ID card was created for and by Yvonne, these details still belong to Jeanne.

The height of Yvonne as an adult can be estimated

from a photo taken at a wedding in 1929, where she was standing next to Joseph. From the military record we know him to be 173cm tall. Considering the height of their shoes and hats, the height of Yvonne has been estimated as about 155cm, 3cm taller than Jeanne [79]. If the identity switch took place this small difference could easily be disguised by shoes or a hat.

How does this compare with Mme Calment's height in old age? The most reliable source could be the medical thesis written by Garoyan which gave her height as 150cm [55]. It is usual for people to lose from 3 to 7cm in height in their old age so for Jeanne to lose only 2cm in height is less than expected. A loss of 5cm if she were Yvonne is a better fit.

However, other sources have given different values for her late age stature. Michel Allard showed a document recording a height of 143cm, but this was from the time of the IPSEN study which was conducted after her hip fracture, when she was already confined to the wheelchair, so it would not have been possible to measure an accurate standing height.

The same height was given by Victor Lèbre in Readers Digest [18]. She was 4 foot 6 inches (137cm) in the English version of the validators' book [2] p11. It is not clear if this was measured later, or in a more bent state. It has also been claimed that the height of 150cm was just a declaration and not a measurement [75, 76].

Simonoff [8] p66	Translation
MC: J'ai aujourd'hui le même poids que lorsque j'avais onze ans: 50 kg pour 1,50 m	I am now the same weight as when I was eleven years old: 50 kg for 1.50 m

Simonoff provided a quote which he probably adopted from Garoyan's thesis [55]. Given that Jeanne's adult height was 152cm it is hard to believe that she weighed 50 kg when she was 11 years old.

A Danish newspaper reported an unusually precise value of 151.5cm. De Cock who had known Mme Calment for the last 17 years of her life recalled that

When they first met her on the steps of Saint-Trophime in 1980, she was already a little lady with rather small stature. Over the next few years, she seemed to get even smaller. At 115 years old, she became very small after a broken leg that had her confined to her wheelchair for the rest of her life. [23] p210

This might be the most reliable explanation for the differing measurements.

Because of these discrepancies and uncertainties, Zak did not include her height as one of pieces of evidence in the final version of his paper [5], but it had been included in the preprint version on ResearchGate and had also been mentioned by Novoselov [68]. Despite

the partial retraction, this evidence was criticised by some of Mme Calment's supporters with Robert Young claiming that

"Correcting this error removes one of the strongest arguments to suggest that this woman was not herself." [80]

Conclusion: Due to discrepancies and uncertainties in Mme Calment's height measurement, this cannot be used as strong evidence. We assign it the likelihood ratio of 1.2 in favour of the switch.

HAIR AND EYE COLOUR



Mme Calment in late 1980s. Were her eyes green or light grey?

Jeanne Calment's ID card from the 1930s and, presumably, her earlier passport, gave both her eye colour and her hair colour as "*noir*" meaning black.

The black colour is often noted in military files of the time, including those of Fernand Calment, his cousin Louis Calment and his employee Marius Maxence. This designation would be given when the eyes and hair are too dark for any specific colour to be seen.

However, natural black hair is rare in native Europeans. It is also possible that Jeanne had been using dark hair dye such as henna, as was fashionable at that time,

especially for ladies who got grey hair prematurely. Yvonne also appeared with unnaturally dark and shiny hair in her photos from 1931. If she was one of the 3% who had early grey hair in her 30s it would explain how she could go grey quickly, making her look much older after the switch.

Mme Calment's validators described her eye colour as light grey [2] p12, but sometimes it appears in photos as green. Like hair, eyes can become lighter in old age as melanin pigment is lost, but this is more unusual. In her 1988 interview with Paris Match, Mme Calment allegedly had said that her eye colour was green when she was young [10, 30, 11].

Unfortunately, it is very hard to tell from the early photographic record with any certainty how dark the eyes of either Jeanne or Yvonne were. In the validators' audio recordings, she clearly and confidently says that her eyes had always been

"Gris clair comme maintenant, il n'a pas changé," (7 Sept 1994 suite 08:45), that is, light grey and never changed their colour.

Mme Calment could not remember the colour of her father's eyes and said that her brother had the same as herself. However, the military file of François Calment gives his eye colour as "*chatain claire*", that is, light brown. Eye colour is not the first thing noticed by people, so it would be natural for Yvonne to get it wrong for her uncle or grandfather. Jeanne would probably be more aware.

In summary, there is clearly some tension between the

eye colour recorded on the ID card as black, and the eye colour as reported by Mme Calment being light all her life. This could be explained if Mme Calment was really Yvonne who could have had a lighter eye colour. It is therefore evidence in favour of the switch as proposed originally by Zak [5].

Zak's opponents have criticised this evidence. Eric Le Bourg, whose own eye colour is very dark, asserts that it is an invalid argument because there is no such thing as black eye colour [75, 76].

Young admits that black means dark brown but suggests that eye colour can vary with age and season so that the evidence is not proof [80]. However, this idea was refuted by Mme Calment herself in the audio recordings.

Michel Allard knew that, so in a 2019 TV documentary he used the argument from Le Bourg: "*Black eyes don't exist.*" He also said that from recent photographs he now thinks they were dark olive green in later life [81].

Conclusion: Audio recordings confirm that Mme Calment believed that her eyes were always light grey, just as in her last years of life. Her identity card copied from passport said Jeanne's eyes were black, that is, very dark.

This contradiction can be resolved if Mme Calment was not Jeanne or if she was mistaken about her past eye colour, or her passport data was not correct. We assign this evidence the likelihood ratio of 3 in favour of the switch.

FAMILY TOMB



Jeanne and Yvonne Calment are buried in the same tomb in the cemetery at Trinquetaille across the Rhône from where the family lived in Arles.

With her are Jeanne's husband Fernand, her parents Nicolas Calment and Marguerite Gilles, Yvonne's husband Joseph Billot, their son Freddy, Marguerite Crouanson who died as an infant in 1908 and possible earlier members of the family. The grave is only marked with the names of Joseph, Frédéric and Jeanne. Why not Yvonne? Is it because she was not really dead in 1934?

This question was originally proposed as evidence of an identity switch by Zak [5]. The counter-enquiry and family members dispute it, pointing out that

the grave was renovated, and Yvonne's name is duly recorded in the graveyard register [82, 63], but does this fully answer the point? Even Freddy's niece Claudie Taque admitted that the missing names was "a little bit astonishing" when she was interviewed at the graveside [16].

If Yvonne was the only name missing it might be more suspect, but in fact the only names present are those who died after 1960. This is because that was around the time it was refurbished by Mme Calment. We can tell from aerial photos that it changed sometime between 1961 and 1966.

It is still a mystery why Jeanne would not display all the previous names including that of her husband Fernand. There was plenty of room on the name plate. They are remembered only by the names

GILLES – CALMENT – BILLOT across the base.

A case could be made that if she was really Yvonne, she would not want to add her own name, and since she could not explain why the one name would be left out it was less suspicious to have none.

It is also possible that Mme Calment did not want to dwell on the past, but we know that she had asked Dr. Lèbre to put a photo of Yvonne along with a photo of Freddy to her grave after she dies.

"It will be a fake funeral, but they will be by my side," she told him [7] (10 and 15 June 1994).

Mme Calment had this idea for a long time. In 1988 she

had shown the two photos to Paris Match:

"They are the only things I have left. I will bury these two loved ones with me a second time." [10]

A newspaper report claimed that her request was fulfilled. Gilberte Mery recalled that she often said:

"All mine are in the cemetery," and crossed the Trinquetaille bridge which separated her from it every day [65].

After she entered a retirement home, Mme Calment continued to put flowers on the family grave. Her taxi driver would pick her up with the bouquet that a florist had prepared. These were usually gladioli, carnations, and chrysanthemum balls [1].

Nowadays geriatrician Lucien de Cock brings sunflowers to the grave of his friend and *"Doyenne of humanity"*.

Conclusion: It is surprising that Mme Calment only added the names of the most recent deaths when she restored the family tomb after the death of Freddy, but it is not the strongest evidence that she was Yvonne. We assign it the likelihood ratio of 1.3 in favour of the switch.

CENTENARY CELEBRATION



Madame Calment had to wait 110 years to become famous

On 21st February 1975 Jeanne Calment would be 100 years old. Most people who reach this age get a congratulatory article in the local papers, but for Mme Calment the event seemed to have passed quietly: Jean-Claude Lamy could not find any mention of her centenary in *“Le Provençal”* which reported another resident's 95th birthday [1] p81-83.

However, according to the testimony of the son of doctor Gilbert who treated Jeanne in Leysin, her old age was mentioned in the regional press or on the radio in the 1970s.

The mayor Jacques Perrot was aware of the centenary

and proposed a meeting. Mme Calment at first refused because he was a communist, but later she relented and went to see him. The mayor was surprised at how young and healthy she appeared for her age:

“I did not notice a centenarian. Yet she was right in front of me. A small woman in a grey suit, wearing a hat with a thin veil. I noticed her heeled shoes and seamed stockings. She was so elegant, she looked twenty years younger. I invited her to join me in my office.

She said to me: ‘I had to be 100 years old before I could come and bother the mayor of Arles. Speak a little louder because I am deaf!’ When she left my office, I watched her go. She had a hunter's stride!” [1] p81.

Gilberte Mery told JDD an anecdote she heard from Mme Calment whom she met unexpectedly at Saint-Trophime, *“tiny in her big coat and her Astrakhan hat”*:

“For her 100th birthday, the mayor of Arles gave her a beautiful bouquet and told her: ‘I want you to give my compliments to your mother.’

Jeanne replied: ‘But I'm the one who's 100, not Mum.’” [65]

In 1870 William Thoms proposed that a longevity claim must pass a 100th birthday test for validation [83]. If they did not claim to be 100 at the right time, then their

true age is likely to be different. Did Mme Calment pass this test? Her validators accepted that her entry in the 1975 census giving her age was sufficient [39], but why was she so shy about her age milestone?

In an interview with validators in 1992 Mme Calment confirmed that she did not celebrate her centenary [7] (27 Nov 1992 00:10). She was just happy to continue profiting from her good health and did not count the days. De Cock had the impression that Madame Calment enjoyed little social contact before entering the nursing home.

“Certainly, her tailor and perhaps her hairdresser were the exception to this.” [23]

According to the hairdresser,

“Madame Calment energetically demanded a more careful hairstyle than others. She displayed a certain dynamism for her old age and liked to surprise people by leaping from her chair.” [63]

The quiet passing of the birthday is not difficult to understand considering the circumstances. If she had already been in a care home, or if she had close family living in proximity, there would be someone to prepare a celebration, but neither of these were the case. If she chose to keep the celebrations low-key, nobody was going to change that.

When talking about President Mitterand whom she called an “upstart prototype”, Madame Calment had quoted the fable *The Lion and the Rat*:

“You must show patience and act calmly.” [14]

She had to wait 110 years to become famous [18] and only then she decided to make the most of it. Twenty years after her centenary, Mme Calment had received thousands of letters from all over the world congratulating her with her birthday, and at least five books about her were being released.

“Calment lunched on crab, duck and champagne with friends at her retirement home before sharing a mammoth chocolate birthday cake with 80 guests, including France's health minister.” [34]

Her birthdays took on the proportions of national celebrations.

“I enjoy everything about it, I enjoy it all a lot. A bit more than a lot, perhaps.” [70]

Conclusion: Mme Calment's quiet centenary birthday is not proof that her age claim is invalid, but it has raised some suspicions. We assign this evidence the neutral likelihood ratio of 1.

EN VIAGER

DANS LES ARCHIVES DE C'NT...



ANTOINE LISSOWSKI (CNP) : IL VA FAUOIR INVOQUER TOUS LES FANTÔMES DU PASSÉ
POUR RÉSOUDRE CETTE HISTOIRE « CALMENT » !

We will have to summon all the ghosts of the past to resolve this story "Calment"!
Cartoon in "La lettre de l'Assurance", 2021

The French legal system allows for a scheme of property purchase called "*en viager*" meaning "for life". The purchaser agrees to pay a fixed monthly annuity to an owner of their home allowing them to continue occupying the property until they die.

It is a mechanism of equity release that gives the seller security, but it is a gamble for the purchaser whose eventual cost for the property depends on how long the seller lives. The rates are set by the state, dependent

on the value of the property and the remaining life expectancy of the seller.

A lawyer Bernard Kuchukian recalled in 2019 that in 1973 he had been approached by a young dentist Jean-Claude from Toulon who asked for advice: a notary from Arles proposed to him to buy the annuity he paid to a very old lady *en viager*. Kuchukian suggested avoiding life annuities, especially in that region: he had a client from Marseilles who never stopped paying to a very elderly peasant.

The notary André Raffray had been paying *en viager* to Mme Calment since the 1960s for her apartment. After the death of Raffray on Christmas Eve in 1995 his widow Huguette (as well as his first wife Marie) had to continue paying 120-year-old Madame Calment, while Jean-Claude and his wife thanked Kuchukian for "saving their life" [84].

To the consolation of Huguette, her great-aunt, a semi-supercentenarian Berthe Savoye (then 107 years old), had been receiving a *viager* rent for her hotel "*La Régálido*" ("*A Present*") since 1959, the year of Raffray's arrival to Arles. At the end of a birthday meal, the old lady used to raise her glass and tell the buyer:

"*An que ven!*" in Provençal – "*See you next year!*" [1]

In 2019 "*le Parisien*" reported Huguette's reaction to the hypothesis of identity fraud:

"*I don't believe in this story; everyone knew her in Arles. I remember a very nice and a little deaf*

woman who seemed to me to be her age. Money or not, I don't want to disturb the dead. We should not stir up the past." [85]

FREDDY'S LEGACY

After the WWII the French were told to declare their assets so that richer citizens could pay a one-off wealth tax to help settle the country's war-time debts.

Wealth declarations made by Mme Calment and Frédéric Billot are publicly available. They show that Jeanne had property assets worth 1,014,775 Fr and Frédéric had 1,219,926 Fr in 1946. Due to the will of his grandfather, Freddy had benefitted from the inheritance of most of Fernand's estate. Mme Calment still owned half the farm at Saint-Martin-de-Crau and Freddy had bought the other half from Jeanne's brother François.

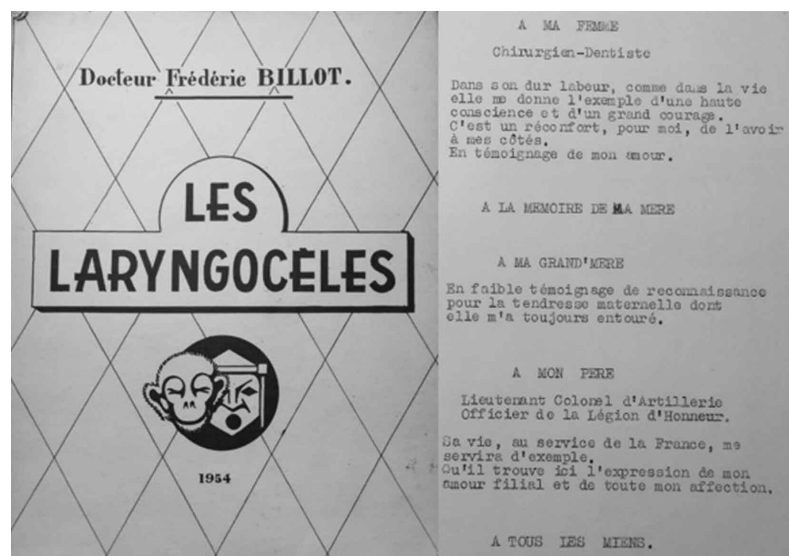
The big numbers don't mean that they were fabulously rich. Post war inflation was high with the result that in 1960 the currency was denominated with 1 new Franc equal to 100 old Francs. Until the 1930s the family had been very well-off, multi-millionaires in today's terms, but the depression, war and inflation had diminished their wealth and now they had to make do with what was left.

Their property gave them some protection against the inflation and Freddy also invested in company shares, but property was not as valuable an asset then as it is today.

After Freddy married Renée Taque in Paradou in 1950,

the farm was sold, and some was used to set up a dental practice at their address in Arles. This was a generous gift from Mme Calment. It might also be seen as a settlement of money owed in accordance with dowry commitments in the marriage contract of Yvonne and Joseph.

At this time Mme Calment seemed happy to support Freddy and Renée. Freddy wrote a glowing tribute to Renée, Jeanne, Yvonne, and Joseph in the dedication to his medical thesis in 1954. The tribute to Yvonne was the shortest, indicating that Freddy had few, if any memories of her.



Thesis by F. Billot, dedication to his family, 1954

*"TO MY WIFE, a dental surgeon. In her hard work,
as in life she gives me the example of a high*

*conscience and great courage. It is a reward for me
to have her by my side. As a testimony of my love.*

IN MEMORY OF MY MOTHER

*TO MY GRANDMOTHER, in a small testimony of
gratitude for the maternal tenderness with which
she has always surrounded me.*

*TO MY FATHER, Lieutenant Colonel of Artillery,
Officer of the Legion of Honour. His life, in the
service of France, will serve as an example to me.
May he find here the expression of my filial love
and all my affection.*

TO ALL OF MINE." [86]

It has been said that the marriage between Freddy Billot and Renée Taque was not a happy one [23] p221. We don't know how reliable this information is since it came via Mme Calment herself.

However, in 1955 relations between Freddy and Mme Calment took a different turn. Freddy wrote a document witnessed by friends that he would donate all his property to his wife in the case of his death. He seems to have wished for nothing to be left to Mme Calment and his father Joseph.

When Freddy died suddenly in a car accident in 1963 this document was produced and registered, with the result that the Calment's property owned by Freddy was transferred to Taque.

Only a small part went to Mme Calment in accordance with legal rights in French inheritance law, and even this appears not to have been Freddy's wish. Mme Calment still owned about half the apartment in Arles and the whole of the villa in Paradou, but in 1963 she sold all of this to Taque at an unexpectedly low price.

Why did Freddy change his attitude towards Mme Calment and Joseph so abruptly? One possibility is that as Jeanne reached 80 years old, he became suspicious of her exceptionally good health. Freddy was intelligent and had access to family archives that are now destroyed.

If he discovered that Mme Calment and Joseph had been living a lie, he would be understandably upset and angry. Freddy might have also been concerned that if the fraud was discovered there could be legal and financial consequences. Moving the family wealth out of the hands of those complicit in the fraud might have been aimed at avoiding possible losses.

Conclusion: In 1955 when Jeanne Calment should be 80, Freddy might have realised that he had been lied to by his parents about Mme Calment's identity. This would explain why he wrote a document attempting to donate all his property to his wife. We assign this evidence the likelihood ratio of 2 in favour of the switch.

RAFFRAY'S DEAL

According to a much-publicised story, Mme Calment sold her remaining share of the apartments where she lived using a viager deal to the notary André-François Raffray in 1965.

This required Raffray to pay a monthly sum of 2,500 Fr to Mme Calment in exchange for ownership of the apartments when she died. It turned out to be a bad deal for him because she survived for 32 more years, outliving the buyer, but before he died Raffray told reporters that

"He felt very proud to play a small role in the exceptional longevity of Jeanne Calment with his small rent."

Once he even saved her from a gas leak in her apartment [87].

In fact, the common version of this story that circulated in the press is at best a simplification of actual events. The financial documents describing the transactions are accessible in accordance with French law.

They show that in 1963 it was Renée Taque who agreed to a *viager* deal with Mme Calment. After the death of Frédéric they were trapped in owning parts of every

room in the big Maison Calment.

To resolve that mixed ownership Taque bought the share of Madame Calment, some of it was *en viager*. She reserved the right to finance it by buying an annuity for the life of Mme Calment from a state company.

We believe she made a contract with the insurance company CNP for this purpose in about 1964. The rent included the *viager* payments for Mme Calment's apartment and also covered part of the purchase of her remaining real estate including the villa "*la Miquelette*" in Paradou. The price was unjustifiably low, with the entire property valued at 48000 FF, half of which was to be paid as an annuity.



La Miquelette in 1950s

However, that was not the end of the story. On 13th August 1964, exactly one year after the death of

Frédéric, Mme Calment opened a legal dispute over the prices paid for her property. In 1967 a court in Tarascon ruled that the annuity being paid should be increased, while "*La Miquelette*" should return to Mme Calment.

Taque had to take loans backed by her property. She asked her notary André Raffray to partition the Calment's building into 22 smaller pieces that could be sold separately.

In 1969 the new *viager* deal was transferred to Raffray. Now part of the rent was paid by CNP and another part by Raffray and his first wife who were going to get the apartment after Mme Calment's death.

Later Raffray bought some additional property in the former Maison Calment from Taque. He was also a witness at her second marriage to Mr. Bonnary.

In 1990 Madame Taque had sold another apartment on the third floor to Chico Bouchikhi (whose brother Ahmed was confused for a terrorist and killed by Mossad in Norway) from the family music group Gipsy King, famous for its hot songs like "Bamboleo". Curiously, he had also bought a building in the former shipyard of Jeanne's father Nicolas Calment and was said to store there some boxes with Calment's archives which were destroyed during a flood of the Rhône. Chico still owns the apartment but just after Calment's death he sold the ancient Porcelet tower attached to it for 1 Franc.

Why did Taque pay so little in 1963? Why did the original notary Delahaye accept the valuation? The villa in Paradou was described as being in a bad condition, but this does not appear to be plausible because in

1968 Mme Calment had sold it for a very good price of 140000 FF. Fifty years later the villa was on sale again for 690000 euro, with the advert saying that

“This absolutely charming property has been built for a very old friend of Vincent van Gogh in 1933. Mme Jeanne Calment was the oldest lady ever in France (123 years)! We can conclude that it must be a very healthy environment.”

It seems that in 1963 the annuity was valued as if Mme Calment was the younger Yvonne rather than the older Jeanne. Why then would the situation be reversed by a court later? Did Taque become complicit by making the CNP deal based on the older claimed age? This would have given Mme Calment some legal leverage that she could have taken advantage of.

You must show patience and act calmly - the legal dispute was resolved quietly and almost nobody in Arles knew about their trial. In preparation for her article for the New Yorker, Lauren Collins sent a letter to Renée Bonnary and contacted a relative of hers, who eventually asked her to leave them alone. [46]

If Mme Calment was indeed Yvonne rather than Jeanne, then both the CNP and Raffray were defrauded by these deals because they should have paid much less if she had been 23 years younger. Mme Calment had told geriatrician De Cock that

France has been supporting her by paying her a pension since she was 65 years old. Now it was her duty to France to live so long and glorify her

country. [23]

In fact, Mme Calment had never worked and never received any pension from the state, so here she probably meant the annuity from the state-owned company CNP which she was receiving since about 1963 when Yvonne would be 65 years old. She had cheated France and now had to repay her debt, by showing the world that French people live the longest life.

Conclusion: The peculiar property deals between 1963 and 1969 can be explained if we assume Madame Calment being Yvonne and Renée Taque being aware of that. We assign this evidence the likelihood ratio of 2 in favour of the switch.

ASSURANCE COMPANY RUMOURS

In 2007 Jean-Pierre Daniel published a book *"L'assurance et ses secrets"* [89] in which he asserted that a large French company was paying an annuity to Jeanne Calment.

He also claimed it was known that Jeanne's daughter had taken her identity to keep receiving the payments, but that the company did not want to accuse her of fraud given the positive publicity about her longevity [42].

Daniel's assumptions about the deal are not consistent with what we now know. We have found no evidence that Jeanne was receiving such an annuity before 1934. It would be unusual at an age under 60 for her to receive a lifetime payment. It is therefore not plausible that her daughter took her identity in order to keep an annuity.

It makes more sense that the deal in question was the annuity from the CNP that we believe they started to pay in about 1964, but then it cannot be a motive for the switch as Daniel suggested. It is still possible that she or someone else took financial advantage from the switch.

Could it be that the CNP really found evidence that Mme Calment was actually Yvonne? In 2018 Journalist Romain Baheux investigated further for an article in Le

Parisien [90].

The story was first told in 2006 by a state controller of CNP Jacques Boyer to insurer Jacques de Baudus who published it in his trade newspaper [91]. Daniel had simply repeated it in his book without citing these sources. According to what they were told, the account had been flagged as a potential fraud because her age was such a statistical outlier.

"This incredible story, told in front of nine trustworthy witnesses by a man whose seriousness is beyond doubt, raises at least two possibilities:

- either it is true, implying that fraud against insurance company can be supported by the insurers themselves with the complicity of state authorities,

- or it was completely invented by those who told us it with amazing rigidity, seriousness, and confidence, in which case it shows that insurers cannot be completely trusted.

Until today, I have no answer! But if it turns out that the second hypothesis is true, I will without any hesitation reveal the personality of this professional liar, who will then find it difficult to impersonate his daughter!" [91]

Lauren Collins tried to get some further details, but her research soon reached a dead end:

"Later, after Calment's death, one of the insurance

company officials told him that she had switched places with her daughter. The official died in the two-thousands, and, along with him, the origin of the tale.” [46]

Since the annuity contract was drawn up well after the potential identity switch, it is hard to imagine what evidence they could have beyond what we have already found. It is plausible that they drew the same conclusions as us, based only on inconsistencies in her public testimonial evidence and the low statistical likelihood of her longevity.

In 2019 De Baudus continued to make fun of this story in his new newspaper, *Pave d'Assurance*:

“And if the deception was real, it is funny to note that in this story, the CNP was an accomplice of an insurance scam concerning itself.”

In January 2021 together with Jean-Charles Simon we wrote a letter to the CNP to ask if they would reopen the dossier. We received a response on behalf of Véronique Weil, President of CNP Assurances, and Antoine Lissowski, director general [92].

They informed us that all documents relating to the contract had now been destroyed in accordance with the law, and that nothing further could be reported due to client confidentiality constraints. With this reply they did seem to imply that a contract between the CNP and Jeanne Calment had existed, but that they had no reason to doubt her authenticity and they had made no investigation during her lifetime.

In his original work Zak considered both possibilities: the first that one of the annuities started before 1934 and was a motive for the switch, and the second that there was only one later deal that was used to take advantage of the switch [5]. Novoselov had also looked at this evidence and questioned that suspicions were not pursued [93].

Le Bourg and Young criticised Zak and Novoselov for considering that the CNP deal could have been a motive for the switch and played down the claims as just rumours with no source of evidence [75, 76, 80].

This claim from 2006 was by no means the first time the identity switch hypothesis had been brought up. In 1995 Nicolas Brouard had raised this possibility after seeing the photograph of Jeanne and Yvonne in Robine and Allard's validation book where they asked,

“Which is the mother and which the daughter?”

A calculation by Brouard based on the idea of identity switch was posted on Allard's website [94]. Mme Calment was still alive, but her validators did not want to challenge her about it [72]. Instead, they decided not to consider this possibility.

In 1999 Tom Kirkwood also mentioned it in his book on aging [95]. Then in 2001 the validators publicly addressed the point in their own work and dismissed it [33] p149. It is our understanding that the CNP insurers reached their conclusion independently.

Although the switch hypothesis emerged several times,

it was always quickly silenced until Nikolay Zak raised it again in 2018 and found more evidence. Nevertheless, there have always been signs of scepticism just below the surface.

In 2012 at a meeting of the Population Association of America, Brouard showed that he did not consider his calculation for Calment to be merely hypothetical. She does not fit the Gompertz mortality model which he favours and without her case a limit of 120 years of life might be accepted [96]. In 2019 Brouard remained one of the few still willing to express his scepticism openly [16].

Conclusion: A *viager* or life annuity contract probably existed between the CNP and Mme Calment from the 1960s until her death. There is contradictory information about whether this ever raised suspicions or was investigated. The claim that the assurance company concluded that there was fraud might be an invention.

The deal cannot be a motive for the identity switch and there is no direct evidence available. Nevertheless, the suggestion that suspicions were raised by insurers carries some weight. We assign it the likelihood ratio of 1.5 in favour of the switch.

LONGEVITY OUTLIER

A longevity outlier is someone who lived beyond the expected maximum longevity for their cohort by an amount that is statistically significant as an all-time extreme event.

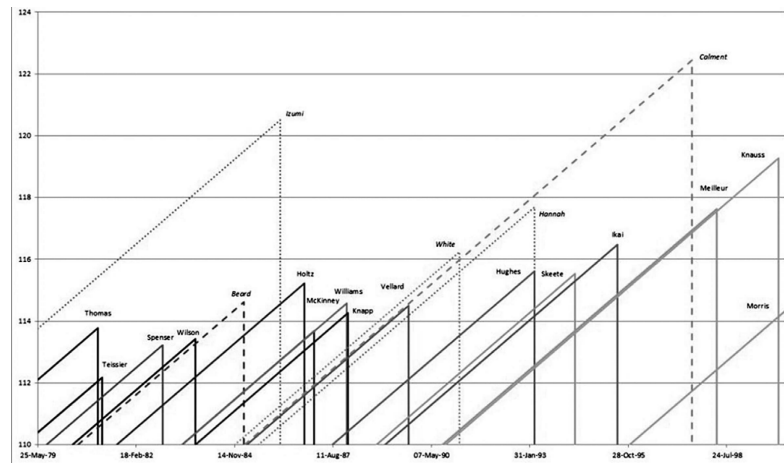
By how much would Jeanne Calment's longevity be an outlier in 1997? Until 1995 the longevity record was credited to a Japanese man Shigechiyo Izumi at 120 years and 185 days [2] p119. This record, established with Izumi's death on Jeanne's 111th birthday, was later debunked, but it still gave some credibility to Jeanne Calment's age at the time of her death.

Carrie White's record of 116 years and 88 days stood as the oldest woman before Calment, but was also shown to be in error later on. A record of 117 years and 248 days was set for Lucy Hannah in 1993, but that was devalidated in 2020. Augusta Holtz who died in 1986 is now recognised as Jeanne Calment's oldest known valid predecessor at 115 years and 79 days [97].

This means that Jeanne beat the incumbent record holder by over seven years. Two years after Mme Calment died, Sarah Knauss was validated at 119 years and 97 days. This put Calment's claim in a better perspective.

Although Knauss's birth record has not been found, Zak

discovered a copy of her 1890 census record that makes us reasonably certain that she lived to around that age [77]. Knauss might also be a statistical outlier, albeit to a much lesser extent than Calment who lived over three years longer.



Oldest living validated people (1979-1999)

The statistics of Jeanne Calment's age claim have previously been discussed by Zak [5], and in response by her supporters [39, 80, 29]. Figure one in Zak's analysis shows that Mme Calment's longevity claim was an outlier by five or six years at the time of her death. As time passes, the maximum validated human lifespan increases due to better health services and an exponentially increasing validatable population size.

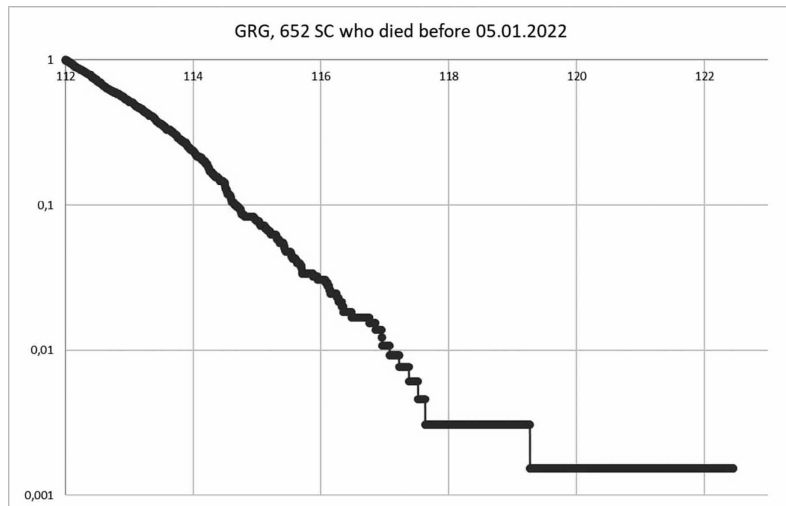
As more recent supercentenarians such as Kane Tanaka and Lucile Randon push closer to the claimed record, it is useful to know where they stand (Kane Tanaka died at age 119 years and 107 days while this book was being

written).

As a data source we use the Gerontology Research Group (GRG) table "*Oldest Validated Supercentenarians All-Time*" [98]. After removing the living cases and those not fully validated, the list contains 650 supercentenarians over 112 years who died before the end of 2021. This table is subject to some unavoidable age-attainment selection bias with multiple omissions for ages below 114, but as a source for the validated human lifespan it is what is required.

As an alternative we have looked at the International Database on Longevity (IDL) data which extends to lower ages (from 110, and from 105 for some regions). It purports to have less bias but also has less complete coverage than GRG by date (up to 2007-2017 depending on country). IDL also contains more known false positives (e.g., Hannah, Beard) and omissions (e.g., Meilleur, Brown, Capovilla, Ikai).

Estimates for expected maximum reported age at death can be based on extrapolations from numbers at lower ages. This enables us to see the extent to which the actual maximum is an outlier. The GRG "survival curve" for supercentenarians (SC) who had reached the age of 112 fits approximately to a straight line between ages 114 to 117 on logarithmic scale (this is not a bona fide survival curve since many of those who died younger than 114 are not counted).



Whether mortality follows a Gompertz law, plateau, or something in between, the survival curve is sufficiently straight to extrapolate it to find the age $a(1)$ for which we expect to find one all-time survivor. We used the formula

$$a(1,t) = \frac{\sum_{k=1}^{100} A(k,t) + 1.1 \ln(k)}{100}$$

where $A(k, t)$ is the age of the k th oldest ever person at time t .

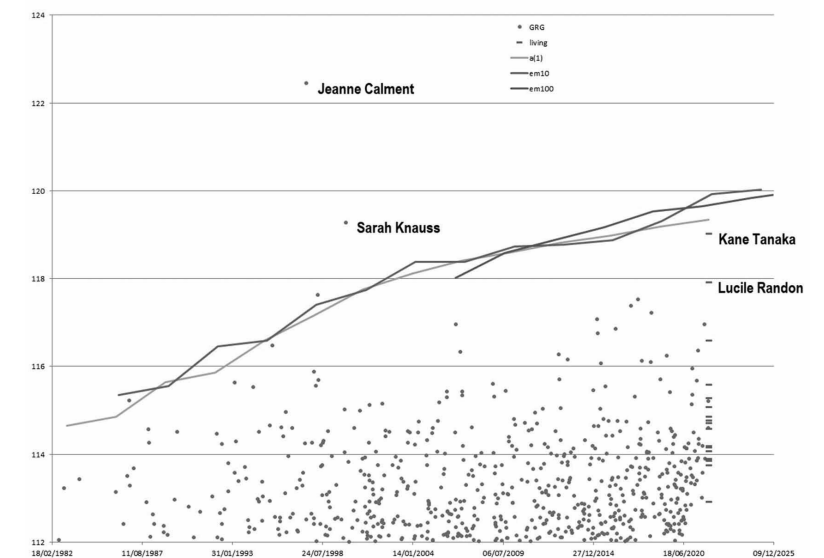
Alternatively, given a population of n supercentenarians with a half-life of H , each of them has a probability $1/n$ to become the last survivor and then is expected to live $H/\ln 2$ after all the rest die, so the expected time until everyone dies is given by the formula

$$T(n) = \frac{H}{\ln 2} \sum_{k=1}^n \frac{1}{k}$$

If the age of the n th oldest person $A(n, t)$ is verified then the expected maximum age can be plotted as

$$em(n, t + T(n)) = A(n, t) + T(n).$$

We plot the GRG age data against time with expected maximum age given by $a(1)$, $em(10)$ and $em(100)$. A half-life of 9 months was used.



GRG supercentenarians age vs date of death

The plot shows that Knauss was about two years older than the expected maximum at her time of death, or she was about twenty years ahead of her time. Jeanne Calment on the other hand was over five years older than the expected trend. This makes her a much more significant outlier.

Expected maximum reported age at death has been increasing by 1 year per decade in the early twenty-first century. Future projections of this number are necessarily uncertain because of unknown mortality rates above 114 years, and the unpredictability of how rates at all ages will be affected by advances in health care, future epidemics, wars, famines, and other unforeseeable events.

However, the population of centenarians has quadrupled from about 140,000 to 573,000 from 2000 to 2020. The United Nations predicts the number will continue to double each decade until at least 2050.

The number of validatable supercentenarians with birth records should follow this trend until additional populations such as China, India and Russia can be included in the second half of the century.

If we assume optimistically that the positive trend is going to continue and mortality plateaus at 50% per year, we can expect that the estimated maximum will continue to increase by one year per decade. This implies that Calment's age claim will be normalised around 2040 to 2050 and we can expect her record to be broken around mid-century [99]. Nevertheless, she will always remain an outlier in her own cohort.

This projection relies on the uncertain assumption that mortality remains constant up to age 122. Jeanne Calment herself is used by demographers as a data-point to justify this assumption, but if her validity is disputed then other evidence from the IDL tends to suggest that the half-life is in fact decreasing. In our opinion there is no reason to expect population mortality to fit any simple model, plateau or otherwise.

Demographers have historically tended to claim that a plateau is reached only above some ever increasing age limit that matches where the data becomes too uncertain. Declared evidence in favour of the plateau [100] is very weak.

A single data-point can be statistically significant if it is an outlier in a region of uncertainty, provided the possibility of it being an error is ruled out. Jeanne Calment's longevity would fall into this category if correctly validated. As Robine stated,

"Jeanne Calment was an inescapable observation that caused mortality trajectories to change with age." [101]

Jeanne Calment's longevity, if believed, falsifies the possibility that mortality rates rise sharply above the age of 114. This observation prefers a plateau mortality trajectory, implying that maximum lifespans could increase further, perhaps as high as 130 by the end of the 21st century. Without Calment, demographers might be more willing to accept the possibility that 120 years or a little over is a soft limit to longevity.

Calment's validators accused Zak of basing his identity switch hypothesis on the "*contention that the occurrence of a 122-year-old person is 'statistically impossible'.*"

In fact, Zak never made such an assertion. If you toss a coin five times and get five heads you may be surprised, but it is a lucky event that can be accepted as chance. If the evidence supporting someone's claim to be 122 is strong enough, it must be believed.

In the case of Jeanne Calment's longevity claim we base our conclusion on a Bayesian analysis of the evidence including the likelihood of someone living to such an age [6]. Robine et al. computed that one in ten million centenarians could live to 122 [39]. Their result was similar to our own estimates. This was not the first time Robine assessed Calment as an outlier. In 2003 with Wilmoth he declared that

"Jeanne Calment's exceptional longevity relative to members of her own cohort, is the sort of event that should occur only about once every 4,500 years." [102]

Conclusion: The longevity claim for Jeanne Calment was a statistical outlier by about 5 years when she died. A similar longevity claim even today would be about three years beyond the expected maximum validated lifespan based on extrapolation of known mortality. Although this raises suspicions and must be considered as evidence, the authenticity of the claim is based on the totality of evidence.

Jean-Marie Robine criticised Zak for his statistical

conclusions, yet his own calculations and statements about her position as an outlier have been stronger. Our estimate for "long life" ratio of the probabilities of survival to 122 vs 99 was derived in [6] and here we assign it the ratio of about 10 million in favour of the switch which was implied in [39] by Calment's validators.

GENETICS

"My parents wove me from a tight thread. I come from a family of long livers. It's atavism, I think. My mother died at 90, father at 87, and brother at 98." - attributed to Mme Calment (with some mistakes) [10]

"By chance, she was endowed with an extraordinary genetic make-up. Despite being in a wheelchair after breaking her leg and elbow in 1990, she had an extraordinary resistance to sickness, stress, and depression, and she was not a health fanatic!" - Jean-Marie Robine [22]

"We note that the Doyenne of Humanity has an abnormally high number of ancestors who have exceeded the average age of their time. And there are some cases of longevity which, at the beginning of the 19th century, must have seemed as astonishing as that of Madame Calment today." - Jean-Marie Robine, quoted in [1]

"...Extraordinary longevity of Jeanne Calment is due to an exceptional genetic inheritance, randomly accumulated within the social group of craftsmen and shopkeepers running prosperous businesses in the town." - Jean-Marie Robine and Michel Allard [103]

Many factors influence how long a person lives: diet, climate, lifestyle, genetics, and of course chance. Trying to unravel the extent to which each of these plays its role is difficult.

For obvious ethical and practical reasons, scientists can't do lifelong randomised controlled trials on humans to test the relative influences of these factors. It is notoriously difficult to separate environmental factors from genetics. To do so would normally require careful studies on large cohorts controlling for confounding factors to determine the outcome with a significant p-value. It is beyond the scope of this report to review efforts in that direction here.

It is surprising to us that the validators for Jeanne Calment's longevity have put significant weight on genetic influences, even counting her long-lived ancestry as evidence of her authenticity in their publication *"The Oldest Human"* in *Science* [103].

Jeanne Calment's mother lived to 86, her father to 93 and her brother to 97. These are respectable ages for their time, but they are not unprecedented and certainly were never considered astonishing as claimed by Robine.

France has a long tradition of longevity tracking. The reports on the cases of exceptional longevity including the *archicentenarians* who claimed to be older than 120 were not uncommon in the 19th century newspapers.

For example, baron Jean-Frédéric Maximilien de

Waldeck, a famous French antiquarian, cartographer, artist and explorer claimed to die at the age of 109 the year when Jeanne was born. There were also deaths of local centenarians announced in the Arles press in times of Jeanne's childhood.

The claims that Jeanne Calment's ancestry enjoyed an extraordinary longevity in her genealogy were debunked by Zak who showed that the families of shipbuilders Calments had indeed lower early mortality than people of lower social standing at that time, but still their lives were shorter than those of contemporary French. Nobody among Jeanne's ancestors in seven generations lived past the age of 95 years [5].

In 1990s the press announced a coming revolution of understanding of longevity after scientists from the project "*Chronos*" by Dausset foundation would study the unique DNA from the oldest human [69], but without any published results during the following decades the issue was forgotten until 2019.

Garoyan noted that Madame Calment had *HLA-DR1* serotype (assessed from a routine blood test) which is "more common among centenarians" and expressed a hope that a deeper study would be conducted in the future [55]. We also hope for a deeper study.

Conclusion: Calment's validators cite genetic factors in her ancestry as evidence that her longevity is authentic because it can be explained. They provide no analysis of the statistical significance of this claim, therefore they cannot be taken seriously.

BAYESIAN TABLE

Here, following the methodology outlined in the first volume, we list the reviewed evidence with the probabilistic weights derived in corresponding chapters of this volume.

The pieces of evidence from 2 to 5 were reviewed in the previous volume and will be included in the final table.

The last three antiswitch pieces of evidence are discussed in several chapters of this and the following volume.

Evidence	Likelihood ratio in favour of the switch, conditional on previous evidence
¹ Long life	10,000,000
⁶ Encounter with Van Gogh	5
⁷ Launch of “La Jeanne”	1
⁸ Death of Espartero	1
⁹ Her first flight	1.5
¹⁰ Ride in a helicopter	1
¹¹ Jeanne Calment’s godparents	2
¹² Walking to school with the maid Fousson	10
¹³ Jeanne’s childhood home	2
¹⁴ The route to school	1.5
¹⁵ Infant school	1.2
¹⁶ Cholera outbreak	0.5
¹⁷ Pensionnat Benet and college	5
¹⁸ Passing the Brevet	1.2
¹⁹ Communions for Jeanne and Yvonne	5
²⁰ School teacher Dubourguet	0.5

²¹ Piano lessons with Gachon	1
²² The dance hall	2
²³ Fernand’s school	2
²⁴ Dressmaker Chambourdon	0.5
²⁵ The honeymoon	1.5
²⁶ The Calment’s car	2
²⁷ Art lessons with Férigoule	3
²⁸ The painted paravent	2
²⁹ Fox stole	1.2
³⁰ The weddings	2
³¹ Madame Calment and Joseph Billot	5
³² Bombardement of Arles	2
³³ The midwife Nevière	2
³⁴ The poet Frédéric Mistral	2
³⁵ Cousin Fassin	2
³⁶ Cousin Crouanson and cousin Bourdelon	2
³⁷ Slipping into being Yvonne	100
³⁸ Selectivity of memories	5
³⁹ Exceptional health	1.5
⁴⁰ Accidents	1.5
⁴¹ Authoritarian bourgeoisie	3

⁴² The masculin huntress	3
⁴³ Archives destroyed	2
⁴⁴ Robert Billot's testimony	2
⁴⁵ Nose scar	2
⁴⁶ Swollen eyelids	2
⁴⁷ Prominent hand veins	2
⁴⁸ Height	1.2
⁴⁹ Eye colour	3
⁵⁰ Family tomb	1.3
⁵¹ Centenary celebration	1
⁵² Freddy's legacy	2
⁵³ Raffray's deal	2
⁵⁴ Assurance company and other rumours	1.5
⁵⁵ Decision to masquerade in 1932	0.001
⁵⁶ Decision to masquerade after Jeanne's death	0.001
⁵⁷ Avoiding being caught	0.001

ANNEX: CALMENT TAPES CONTENTS

	26 June 1992
0:05	school, friends, teachers
0:55	piano teacher Gachon
3:30	route to school
4:15	music lessons, Marseille
6:40	schools, brevet, waiting for marriage, art teacher
7:50	school friends, boys at school? father, maid accompanied to school
10:30	schools, l'asile, Benet pensionnat, communion, college
14:00	school teachers and subjects, brevet
18:50	going to school with father or Marthe Fousson, school day, breakfast, lunch
22:30	after school, drawing, homework
25:10	location of pensionnat Benet, Bibliotheque, communion
27:15	engagement and marriage, painting, going

	out, hotel du Nord
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	27 November 1992
0:10	celebration of centenary, visiting mayor
3:45	balls of family, waltzes, and ball Alliance Française
7:30	cavaliers, cousin Fernand
9:10	ball gown, hair, Alliance Française, dressmaker Chambourdon
16:00	house at Roquette, wardrobe, dresses
20:20	ball Alliance Française at municipal theatre, quadrille, her father
28:00	balls after marriage, societies, Red Cross ball, Arlésienne Ball, dresses, hair
33:30	painting after marriage, paravent painted with flowers, salon, friends
41:10	bombardment of Arles, confusion of wars, song, Americans
46:00	hunting society with husband, husband mobilised in town

	27 November 1992 continued
0:00	war shelter, provisions, vegetables,
2:50	Mas de Rourion, father boat builder

	December 1992
0:10	Christmas presents, dolls and dresses for Yvonne, present list test
4:40	tests of memory, addition, subtraction, counting, money, repetition, words
22:20	girls' names, personalities, books

	December 1992 continued
0:00	books
1:30	de Gaulle, Poincare, Clemenceau
6:30	books for Christmas, Marcel Proust
11:40	birth of Yvonne, mid-wife, Nevière, breast-feeding, blocked ear
20:00	telephone number tests
25:00	did she work, music, painting, hunting society, jobs

	29 January 1993
0:00	which year, date of birth, 1970 war of 14
2:10	Dreyfus Affair, mother, father, and husband's politics
6:30	future
8:00	hunting, guns

9:10	her brother François, his job in Toulon
12:00	father's retirement, launching last boat, dress
15:00	Paris Match, day with Emile Laurent, photographs by lake
18:10	memories, photographers, marriage, youth, politics
20:40	Corrida, Espartero
24:00	religion, God, prayers, death
27:50	boys' names, Marius Petrie

	10 February 1993
0:45	Victor Hugo, Émile Combes
3:10	Marius Petrie/Billetrie, shop employees, Jérôme, Feuillas helping parents
5:30	baptism party for Yvonne in shop, song, jam, chocolate, champagne
12:25	Marius Bilettrie, types of cloth
15:30	confusion about accommodation
19:00	ball Mireille, dresses, hair pins, Arlésienne costume
25:00	fashions at 20, man's life, cyclist's dress, hunting, at Crau

	13 February 1993
0:10	the shop during WWI, Marius Sylvester, deprivations
2:15	Fernand mobilised in the town, spirit of war
3:50	Poincare, Pompidou, Clemenceau

5:00	Russian revolution
7:40	religion, God, prayer, pact for 120 years, death, afterlife, Yvonne
11:30	food
13:45	political elections
14:35	Yvonne's communion, pensionnat Benet, diner, crown, mass
23:00	How things have changed, stolen dresses
25:00	Food does not vary

	25 February 1993
0:00	118 th birthday, many letters
1:20	photo "plage"
2:00	opera after marriage, venues, performances, singers
3:45	piano, Beethoven, Chopin, opera at Bezier
5:00	shop top employee, Marius Puech, his wife
7:00	Crouanson and Calment, best couples, cousins
8:20	photo "plage"
8:50	Marius Puech
9:40	shop clientele, cloth and furniture, enlargement of shop
12:00	opera at Marseille, evening dresses
12:40	furs, fox stole
14:55	theatre, Wagner
18:00	good health, to 120 years

20:00	opera at Marseille, location, going by car
21:10	restaurants, varied food, favourite dishes, sea food, oysters, muscles
23:45	names of operas, super memory, Bouillabaisse, cost, service, deserts
31:00	perfumes

	25 and 26 February 1993
0:00	perfume Coty
0:50	pastries
4:00	opera Mozart
5:20	photo "plage"
7:10	perfume Coty
7:40	genealogy, family tree, ancestors
8:45	mid-wives, Nevière,
10:15	Yvonne, happiness, easy to bring up, good at school, her character
12:00	engagement to Joseph, Yvonne's marriage, wedding dress,
16:10	Yvonne's interests, painting, piano, not hunting
17:00	Automobile, diner at hôtel du Nord
18:40	Yvonne's illness, treatment at home then en Savoie
20:00	pleurisy, blaming Maria, after Freddy, later
22:05	looking after Freddy, Lèbre knew Freddy, Humbert Vesony
25:00	brain working well, writing book

	15 Jun 1993
0:50	Van Gogh
5:15	new theatre, Folies Arlésiennes, ball, pastoral
6:35	Provincial language, parents speaking, Mistral's Mireille, bourgeoisie
9:00	General Boulanger
9:30	memories, death, loneliness, boredom, correspondence
12:25	fire on third floor
13:00	singing songs
16:10	writing book
17:30	Countess Divonne, daughter's marriage
21:00	health, had flu, called for father during delirium
22:30	operas at Marseille

	25 May 1994
0:00	electricity
0:30	servants, housekeepers, cooks
1:30	travel when young, Paris with father, no
1:50	Honeymoon, Eiffel Tower, Sacre Coeur, cinema, voitures
4:15	comforts at home, hot water, heating,
5:50	petrol lamps, electric lights, telephone, train, horse and carriage
8:40	pilgrimage Saintes Maries de la Mer, gypsies, Van Gogh

10:40	at rue Gambetta, decorating bathroom
12:00	painting paravents, no painting in country
13:00	painting, teacher, flowers
14:40	after death of Freddy, sadness, M. Lilamant at Avignon
16:30	name Victor
18:00	operas, comedy
20:00	father spoilt her, mother, brother, dolls, bicycle
23:50	villa at Paradou
28:00	food, game birds, hunting
31:10	drinking Porto, daring songs
33:00	WWI, restrictions, Fernand mobilise in Arles Tarascon
34:50	servants, deprivations, meat, milk during war,
36:00	WWII, Hitler, bombardment, no fear, Fernand death, liberation, occupation
40:00	deprivations, food during war, Germans
41:50	Mistral and festival with Queen of Arles, Félibrige
42:20	Mistral, friend of husband, was he invited? No went to his home, his illness
44:40	Ball for Nobel Prize, dancing, age 14, Fernand as first love
47:00	Nicolas and Fernand friendship

	3 Jun 1994
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0:10	travel in Italy and Spain, Pope, Venice, Florence
4:30	Italian food, pasta, big steaks
6:00	food at rest home, new/old director
8:25	film "Vincent et Moi"
9:05	Patrick Sabatier, chocolate, Menier
11:50	119 years, good health, smoking, Paul Béraud

	10 June 1994
0:10	eating chocolate
3:00	Provençal, Mistral's house
6:45	Coty perfume
9:10	names of childhood friends
11:50	friends at rest home
14:00	Bijouterie Pinus, Pearls, rings, diamonds, Fernand gives jewellery
15:55	wedding, dress, St. Cesare Roquette, reception at Hotel du Nord Pinus, diner
19:00	honeymoon, train, Eiffel Tower restaurant, Switzerland, Sacre Coeur
22:20	Champagne
24:45	Fidelity
25:45	photo "plage" 1910
27:00	prayers, God, heaven, Yvonne

	10 and 15 June 1994
0:00	chocolate

1:45	Les fables de la Fontaine
3:20	Necklace
3:50	photos of Yvonne and Freddy, pact
5:00	Crouanson, children, René
6:00	speaking English
7:30	life after marriage
9:15	repeats from beginning

	14 and 29 June 1994
0:00	memories, philosophy
0:30	gourmandise
6:00	letter from relative in Toronto
8:00	Porto
9:20	good skin

	23 June 1994
1:00	cognitive tests, vet story, vegetables
6:20	Nicolas Crouanson, Simpson, Wedding witness, grocers
10:50	M. Urpar, touring club, Jean Granaud, M. Sixte Quenin, Dam Pichou
16:00	Pierre Fassin, Emile Fassin, M. Vadon, M. Verun
17:45	Dr. Urpar, family doctor
18:30	Marcheteau, photographer
19:30	Mlle Puisant, lingerie, Cigale
21:20	Magasin Bouisson, Nouvelles Galeries

23:20	Hippodrome, Plan du Bourg
24:00	dresses, hats

	6 and 13 July 1994
0:00	hot weather
3:25	villa in Paradou. Yvonne et Freddy, en voiture, confusion
7:25	Hitler, WWII, Mussolini, Bismarck, WWI
17:00	dreams, father, bateau mahon, Bigonet visit

	7 Sept 1994
0:30	Mistral, Nobel Prize celebration, his health
2:45	launch of "La Jeanne"
10:30	maternity school, l'asile song,
12:35	Mme Benet, school uniform, communion
15:40	college, lunch, science teacher, brevet
19:00	mother
22:00	waiting for marriage, painting, paravent painted with flowers
25:10	salon, furniture, tableaux, paravent colour
38:00	names of friends, Jacqueline, Madeleine, Marguerite
29:20	painted windows, exhibition of paintings
32:00	Brother François, arsenal of Toulon, his daughter's death, retreat
33:30	exhibitions of painting, still-lives

34:40	vacations, Mas Rouriron, swing, bales of hay, horse-riding
39:00	Marquis de Baroncelli course royal
41:50	<i>pilgrimage</i> Saintes Maries de la Mer
42:30	night of prayer, religious festivals

	7 September 1994 continued
0:10	dolls
1:40	Tarasque at Tarascon
3:50	book
4:25	horse races in Arles, colour Isabelle, betting
8:00	ostrich feather
8:50	eye colour, light grey
10:20	date tests, weather, walk
12:15	outing in caliche
13:50	Mas Thibert

	15 and 22 September 1994
1:20	first Tour de France
2:00	Paris exhibition 1900, train
3:30	Louis Blériot, her first flight, Arles, short flight
5:10	first automobile, at start of marriage
5:35	celebration for start of 20 th century
6:40	first telephone, luxury
8:00	start of cinema
8:45	Picasso, Demoiselles d'Avignon

9:20	newspapers, Marseillais
9:45	beginning of radio
10:00	cholera epidemic, isolation
11:00	father after boats, in country, vineyard, Mas Rouriron
13:50	Russian revolution, Queen Victoria
17:20	Mme Robolly, l'asile modern, M. Dubourguet
19:40	Corbeau et Renard
23:10	Honeymoon, Paris and Switzerland, Eiffel Tower
24:35	explanation for confusion
26:00	Freddy childhood, Dr. Molinier, fractured leg and foot
30:40	Joseph
34:50	chocolate, courage
37:40	friends after marriage, father
42:00	en viager, Raffray

	22 September 1994
0:00	en viager, letter, death in good health, no regrets
3:45	death of Freddy and Yvonne
5:10	honeymoon, Paris, Eiffel Tower, restaurant
9:40	automobile, Peugeot, brand tests
15:00	honeymoon, Eiffel Tower again
16:40	letter from America

	15 June 1995
0:00	with hairdresser, no regrets in life
3:50	hunting, Yvonne, and Freddy
9:30	philosophy of life
10:10	desires, no fear
13:50	pharmacy Martel, opera
15:20	old advert, shop sells beds and material,
16:30	Hotel du Nord Pinus
16:45	corrida
18:45	first Queen of Arles, festivals, opera
19:50	Fernand

	1995 – date unknown (around beginning of 1994)
0:00	best couple, Fernand
2:20	hunting, gun
3:50	best memory, Grenoble, glaciers, book
6:10	death of Fernand
9:00	party for 119, chocolate
11:00	vegetables
12:00	literature, Henri de Bordeaux
16:00	interview Lèbre with journalist

	Date unknown
0:10	asile, song
2:30	celebration of father's last boat

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