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The use of narcoanalysis by Polish counterintelligence in the 1930s

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1. Introduction

The initial idea of using narcoanalysis for investigation purposes arose soon after surgeons began using narcosis (sedation) to induce sleep during surgery.

There are four phases that a patient goes through in general anaesthesia (e.g. with ether or chloroform): the state of shock or analgesia (*stadium analgesiae*), the state of delirium (*stadium excitationis*), the state of surgical anaesthesia (*stadium anaestesiae chirurgicae*), and the stage of respiratory arrest *(stadium asphycticum*) (Danysz, Gryglewski, 1982).

In the second of these (*stadium excitationis*), patients as a rule show strong psychological and motor stimulation, and are talkative with symptoms of disinhibition. The prin-

ciples of medical ethics require that the physician keeps whatever they heard from the patient in this phase secret (Danysz, Gryglewski, 1982) for it is assumed that, unable to control what they say in that phase, the patient may disclose something they would rather was not disclosed were they in full control, e.g. offend someone.

Perhaps the first proposal for interrogating a patient in this phase in a criminal case was that noted by Jurgen Thorwald (Thorwald, 1992). This was the case of the murder of a New York stock exchange investor and philanthropist Benjamin Nathan on 28 July 1870. One of the victim's sons, Washington Nathan, was suspected of the murder. However, the investigation had to be terminated due to the lack of proof. When Washington Nathan was waiting for a surgical procedure nine years later, the idea of asking him a handful of questions connected to the murder while in sedation was raised. Eventually, Washington Nathan underwent no surgery, the concept was never put into practice,[1] and one of the most mysterious murders was never solved.

It also remains unknown what kind of sedation was proposed at the time. It could have been chloroform as well as ether, as both methods were used in contemporary surgery.

Sedation with ether was first applied during a surgery on a neck tumour in Boston in 1846 (Jurczyk, Sikorski, 2001) and a limb was amputated, also under ether sedation, in London in the same year (Brzeziński, 2015). A year later, in 1849, James Young Simpson (1811–70) demonstrated chloroform sedation in Edinburgh (Brzeziński, 2015).

2. "Forensic anaesthesia"

The development of anaesthesia in the second half of the 19th and early 20th centuries and the observation of patients in sedation, especially at the stage when they did not control their utterances, presented a natural temptation to those who wanted to use it for investigative purposes.

Around 1804, a German chemist Friedrich Wilhelm Sertürner (1783–1841) isolated an alkaloid from opium. It was called morphine, the name being derived from the Roman god of sleep – Morpheus (Keys, 1996). The production of medical morphine commenced in Germany in 1827. Originally, the medicine was used for alleviating pain and

[1] "Horrible Murder. Benjamin Nathan, the Broker, Assassinated in His Own House", *The New York Times*, 30 July 1870; J. Nathan-Kazis: "A Death in the Family", *Tablet Magazine*, 13 January 2010 (https://www. Tabletmag.com/sections/community/articles/a-death-in-the-family) (last visited on 17.02.2021); *Who Killed Benjamin Nathan?* (www.murderbygaslight.com/2013/08/who-killed-benjamin-nathan.html) (last visited on 17.02. 2021).

for the treatment of alcohol and opium addiction. Up to 1914 morphine was available in the US as a non-prescription drug.

Mescaline (peyote) was known and used by the native peoples of Mexico and the south of the United States since ancient times (Jay, 2019) and was likely the first psychedelic substance known in the world (El-Seedi *et al*, 2005).

The first to isolate and identify mescaline (1897) was a German pharmacologist and chemist Arthur Heffter (1859–1925). In 1918, an Austrian chemist Ernst Späth managed to produce the compound synthetically (Späth, 1919). Mescaline is known for its psychedelic and hallucinogenic effects (not unlike LSD). Its medical use is fairly limited. It may be used for treating depression and in alcohol therapy (Danysz, Gryglewski, 1982).

In 1892, the German pharmacist, a professor of Marburg University, Ernst A. Schmidt (1845–1921) obtained $C_{17}H_{21}NO_4$, which he called *scopolamine,* to honour Giovani Antonio Scopola, an Italian physician and botanist (Schmidt, 1892). In 1900, Eduard Schneiderlin (1875–?) recommended the use of scopolamine for surgical anaesthesia (Schneiderlin, 1900).

Early in the 20th century, barbiturates revolutionised anaesthesia. In 1899 in Munich, H. Dresser introduced hedonal (Keys, 1996), a compound that the Russian N.P. Kravkov and his assistants used during surgery in St Petersburg in 1905. Soon afterwards the results of using the drug in 530 cases were described in Russia (Keys, 1996).

In 1932 two German chemists, Walter Kropp (1885–1939) and Ludwig Taub (1887–1956), and a pharmacologist Hellmut Weese (1897–1954) discovered hexobarbitone: "Evipan" (.[2] In Poland, Evipan and its medical use were first described in 1933 (Grantowicz, 1934), and since that time it has been in general use in anaesthesia (Rafiński, 1938).

Soon all these compounds – mescaline, morphine, Evipan, and scopolamine even more so – were tested not only for medical purposes but also to be used as a "truth serum".

At a session of the Section on State Medicine and Public Hygiene of the State Medical Association of Texas at El Paso held on 11 May 1922, a professional physician from Texas, Robert E. House (1875–1930) delivered a paper on "The use of scopolamine

[2] D.A. Cozantis: *ibidem*; see also: W. Storm van Leewen, A. von Szent Györgyi: "On scopolamine-morphine narcosis", *Journal of Pharmacology and Experimental Therapeutics*, 1921, 18 (6), 449–454; see also: P. Serocca: "General intravenous anaesthesia with Evipan-sodium", *British Journal of Anaesthesia*, 1934–35, vol. VII, 78–80.

in criminology", and proposed using the compound for investigative interrogations. In September 1922, a few months later, his work was published in a local medical journal, *Texas State Journal of Medicine*. Nine years later, after House's death, it was reprinted in the prestigious *American Journal of Police Science* (1931, 2, 4, 328–336). In his original article, House had raised the reservation that he discussed the use of scopolamine in criminology not as a criminologist (i.e. a lawyer) but only as a physician. He admitted that various lawyers made him aware that interrogating a human under the influence of scopolamine or a similarly acting drug is a violation of US law.

It was not only the legal admissibility of such a test that caused doubts; here the key argument was that using narcoanalysis on a suspect is a violation of the amendment to the US Constitution prohibiting anyone being compelled to act as a witness against him or herself (Despres, 1947; Dession, Freedman, Donnelly, Redlich, 1953; Winter, 2005). The diagnostic value of the method was also disputed[3]. The most frequent argument in this case was that, under the influence of a psychotic drug, a subject may weave unconscious fantasies and may also be especially vulnerable to suggestion. These put the investigative use of the method in doubt.

The discussion about the value and admissibility of narcoanalysis in investigations continued throughout the 1920s and the 1930s. Back in 1925, House argued that the use of scopolamine should be admissible in an investigation (House, 1925). Participants in the discussion included John A. Larson, the inventor of the polygraph, whose attitude to narcoanalysis was quite sceptical and Fred Inbau, a professor of Northwestern University in Chicago and director of the Scientific Crime Detection Laboratory which, incidentally, also experimented with scopolamine. Inbau considered the results of those experiments as "fairly satisfactory" (Inbau, 1934). It was at this time, more precisely in 1932, that Calvin Goddard called scopolamine "the truth serum" for the first time (Sheedy, 1969).

That stage of the discussion was in a way wrapped up by Inbau, who claimed that "the results of experimentation with scopolamine indicate that in experimental cases the drug produces truth-telling effects in practically every instance. In actual cases, however, positive results have been obtained in approximately fifty per cent of the cases. Nevertheless, the fact that any results are obtainable warrants its use under any circumstances." (Inbau, 1934). At the same time, in the State v. Hudson case, the Appellate Court rejected evidence from an interrogation under the influence of scopolamine in 1927 (289 S.W. 920).

[3] „One hundred years of barbiturates and their saint"

There is no proof in literature that any state services in the world routinely used narcoanalysis before the Second World War, or even commissioned testing it as a method. **Therefore, there are fair grounds to believe that the routine use of narcoanalysis by the Polish counterintelligence while interrogating people suspected of espionage in the 1930s was among the first such uses in the world (see below).**

Another argument in support of that hypothesis is the fact that large-scale experimental studies of narcoanalysis were only commissioned by the federal authorities of the US and Germany during the war, that is in the 1940s.

In the case of Nazi Germany, the experiments were conducted extensively on inmates of Dachau and Auschwitz concentration camps (see below).

3. Polish counterintelligence before the Second World War

Between the first and second world wars, that is in the Second Republic of Poland (1918–39), all intelligence and counterintelligence remained in the hands of the military. The headquarters of the Polish intelligence and counterintelligence was the Second Department of the General Staff of the Polish Armed Forces. The Second Department operated six branch offices (*ekspozytury*), and also had the autonomous Intelligence of the Border Protection Corps (KOP) protecting the borders with the USSR and Lithuania reporting to it. The KOP intelligence performed tasks of counterintelligence in the border zone, and of shallow intelligence on the territories of neighbouring states. Independent of these, the ten territorial corps commands operated Independent Information Offices (SRI) dealing with counterintelligence and combating communist propaganda in the army.

The structures of the Second Department included the Independent Technical Office (SRT) (Dubicki, 2015), providing technical services for intelligence and counterintelligence activities. It was an institute with modern facilities employing several dozen military (especially military physicians) and civilian staff. A fair share of its staff had doctoral degrees. One of the fields of investigation of the institute was the preparation of "injections weakening the will" of those interrogated. The leader of the experiment was a military physician, Cpt. Ludwik Krzewiński, MD[4].

[4] Cpt. Ludwik Krzewiński, PhD, was born on 19 May 1898, and served in the Polish Army since 1918. After the defeat in September 1939, he served the Polish Army in France and later in the United Kingdom. After 1945 he emigrated to the US. (L. Krzewiński personal file, CAW Sygn. 1769/89/2710 AP).

Fig. 1. Cpt. Ludwik Krzewiński M.D. (WBH-CAW Sygn. 2710)

4. The practice of using "injections weakening the will of the interrogated" in Poland

The composition of "injections weakening the will of the interrogated", also known as "truth inducing injections"[5] as both names were in use, was as follows: 0.01 g morphine, 0.001 g pilocarpine, and 1 cm^3 distilled water (BU 0298/524, 20). It seems that there were later more components of vegetal origin added to the injections, certainly scopolamine.

Special plants for the production of these injections were cultivated in the garden of the Independent Technical Office of Office II, run by Zofia Wojtucka (BU 0298/524, 21, 86, 129, 146, 148), who had a master's degree in agronomy. The plants included the yellow foxglove (*Digitalis grandiflora*), staghorn sumac (*Rhus typhina*), henbane aka stinking nightshade (*Hyoscyamus niger*), and even agaric toadstools (*Amanita spp.*). The seeds of henbane were used to obtain the alkaloid hyoscine (scopolamine), and the fly agaric toadstools to obtain muscarine, which were used in the production of "injections weakening the will" (BU 0298/524, 21). All these plants, and especially henbane (*Hyoscyamus niger*), are quite common in Poland.

[5] Neither the name "truth serum" nor "narcoanalysis" were used.

Fig. 2. Henbane aka stinking nightshade (*Hyoscyamus niger*)

Therefore, there is no doubt that scopolamine must have been used for the injections "debilitating the will" from some point in time. What however remains unknown is whether it was delivered on its own or with adjuvants and, if so, then in what proportions with other substances, especially morphine.

In the late 1930s, Evipan (BU 0298/524, 48, 21) was considered for the purpose of narcoanalysis, which at the time was called "weakening of the will of the interrogated". However, there is no proof that Evipan was used for this purpose. Perhaps the considerations of using it for narcoanalysis never went beyond just the preliminary considerations.

The use of "injections weakening the will of the interrogated" was routine at least from early 1935. The injections went into practical use, and the method decidedly went beyond just the experimental phase, which does not mean that the practice did not undergo continuous improvement. The fact that "Dr Krzewiński's injections" enjoyed popularity among the officers of the counterintelligence (BU 0298/524, 20) is proof of the above, as well as indicating that the orders for applying them arrived at the Independent Technical Office from various field offices of Polish counterintelligence.

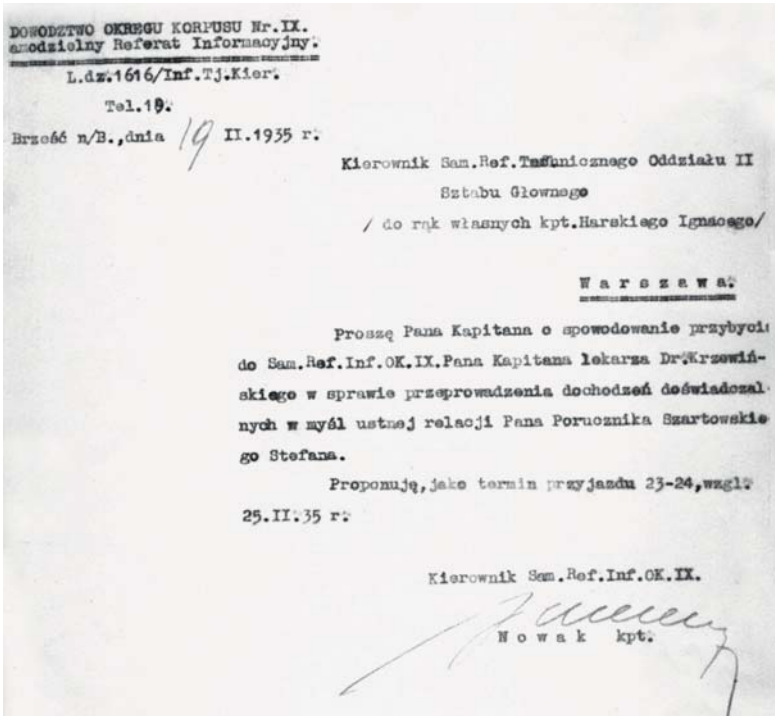

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Fig. 3. Order SRI DOK No. IX (Brześć) for performing "an injection weakening the will" of 19 February 1935 (AAN 842 Prok. Gen. sygn. 21/75, I, k. 272)

The application of such injections has been documented towards people suspected of espionage for both Nazi Germany and the Soviet Union. The first more extensively documented, albeit almost certainly not at all the first use of an injection "weakening the will", is the case of interrogating a person suspected of spying for Germany in Starogard (SRI DOK Toruń) (BU 0298/524, 20). The following more extensively documented case of administering "an injection weakening the will" is that of a woman suspected of spying for the USSR on a commission from SRI DOK in in Brześć Litewski (today Brest, Belarus) . Neither the dosage nor the composition of the injection are known. Previously denying all the accusations, under the impact of the injection the woman "broke down entirely and admitted to the charges levelled" (BU 0298/524, 20). Some incompletely preserved materials demonstrate that two German spies admitted to their crimes after being administered "injections weakening the will" (BU 0298/524, 20). These facts were decisive for the increasing popularity of those injections. The later documented cases of administering narcoanalysis to suspected spies include those commissioned by the SRI DOK Grodno, the Intelligence Office of the KOP, SRI DOK Brześć, and SRI DOK Poznań (BU 0298/524, 20). The last documented case of re-

sorting to narcoanalysis took place in the spring of 1939 in Wilno (today Vilnius in Lithuania) (SRI DOK Grodno) and most probably concerned a suspected soviet spy (BU 0298/524, 129). There is no data on the total number of such injections that were administered.

Contrary to what the investigative agencies of communist Poland claimed (BU 0298/524, 29), there is no proof that narcoanalysis was in general use in the Polish Police and Border Protection Corps before 1939. Moreover, such a practice seems absolutely improbable.

One case of application of narcoanalysis by Cpt. Krzewiński, MD was described in detail by another military physician who was a passive participant in it: "within several minutes [from the injection – author's note] the interrogated subject began to sweat a bit, and half an hour later he informed us that he felt a bit poorly, and that the injection can't have been against headache. The subject disclosed symptoms of a certain sleepiness, and answered the questions he was asked slowly, as if with difficulty, in short sentences, confirming the answers that were suggested to him. This condition intensified for around half an hour, after which time he began to return to normal. When he had his statement delivered under the impact of the injection read out to him, he did not uphold what he had testified" (BU 0298/524, 20).

This short description demonstrates that the subject was not told about the true purpose of the injection; on the contrary he was assured that the injection was for medical purposes (in his case, to eliminate the headache that the subject must have indicated). It remains unknown whether testifying under the impact of the injection and confirming suggested answers to questions, the subject confirmed true facts or suggestions that did not necessarily conform to the truth. It is not known either whether counterintelligence later acquired any confirmation of the answers obtained under the impact of those injections.

5. Experiments with narcoanalysis for intelligence and counterintelligence purposes in the USA and Nazi Germany

Another fact worth noting is that the first experiments with narcoanalysis commissioned by governmental agencies only began in the 1940s. In 1942 it was the newly established US spy agency known as the Office of Strategic Services (OSS) that was the first to commission its experts with the creation of a "truth serum" designed for the interrogation of prisoners of war (Rinde, 2015). Like in Germany, the initial attempts used mescaline, however the experimentation turned back to scopolamine, which had been used in isolated criminal cases in the US back in the 1920s and 1930s.

A claim may be made that the use of narcoanalysis by the Polish counterintelligence in the latter half of the 1930s and the Polish experience of its scope predated those of Nazi Germany[6]. Looking for efficient methods of narcoanalysis, the Nazis only tested them on the inmates of Auschwitz and Dachau concentration camps in 1944. This is how one of such experiment from early 1944 was described: "a Medical Commission arrived from Berlin to conduct experiments on several Jews. They had some preparation injected intramuscularly, and had their reactions meticulously investigated. A quarter of an hour later the subjects were taken out to the courtyard, and forced to do physical exercises for half an hour, after which time the members of the commission asked them whether they wanted to die, whether they felt fear, and who their personal enemies were. Very likely the Gestapo had worked on the discovery of a preparation inducing such psychological changes that would result in extracting testimonies easily. The inmates showed symptoms of slight bewilderment, drowsiness, and lack of proper orientation" (BGKBZK 1946,1).

Similar experiences were performed in Auschwitz by the camp's physicians: SS Hauptsturmführer Bruno Weber and Untersturmführer Werner Röhde together with the head of the camp's pharmacy Victor Capesius, also a member of the SS (Sterkowicz, 1981; Posner, 2019). Most probably the inmates subjected to the experiments were given coffee laced with mescaline. Having drunk their coffees, the inmates entered a state of agitation. After increasing the dose, they lost consciousness and died several hours later (Olbrycht, 1971; Kłodziński, 1965). Similar experiments were performed in Dachau in the autumn of 1944, in which Dr Kurt Plötner tested mescaline on the inmates (Sterkowicz, 1981). The supply of larger batches of mescaline to the camps early in 1944 is validated by preserved archival documents (Sterkowicz, 1981).

Also in 1944, Werner Röhde[7] and Bruno Weber,[8] together with Victor Capesius[9], tested coffee and tea laced with combinations of morphine and Evipan to find the best way of sedating, kidnapping (and also interrogating?) a British agent. The experiment ended with the death of the inmates on whom the drugs were tested. All that Röhde noted was that they "died joyfully" (Posner, 2019).

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[6] It should be added that Nazi experiments conducted on camp inmates usually ended in their death.

[7] Werner Röhde (1904–46), physician and SS officer sentenced for war crimes to death by the British Military Tribunal in Wuppertal.

[8] Bruno Weber (1915–56), physician and SS officer; he was also tried after the war, not sentenced, he died in Hamburg in 1956.

[9] Victor Capesius (1907–85), a Romanian German, doctor of pharmacy, a member of SS since 1943. Since February 1944 he was the head of the pharmacy in Auschwitz. Sentenced to 9 years in prison in the Second Auschwitz Trial in 1965, he was released in 1968.

The selection of morphine and Evipan for the purposes of narcoanalysis seems better than that of mescaline. This is because mescaline is mostly a hallucinogenic drug, and when answering the questions asked, people under its influence may unconsciously present the contents of their hallucinations, which defies the purpose of the whole exercise. Incidentally, it is worth noting that experiments with hypnosis to force evidence were carried out in Auschwitz at an even earlier time, that is, in late 1943. The experimenter was a Jewish inmate, a physician psychiatrist of unknown name from Vienna, who credited himself as a psychiatry *dozent*. He attempted hypnosis on volunteer inmates before the SS staff. Allegedly, the attempts with putting the subjects into a hypnotic sleep and having them follow his orders were highly effective, however the attempts to force testimonies evidently failed as the inmate hypnotiser was unable to put anyone in hypnotic sleep against their will. As a consequence, further experiments were discontinued, and the inmate hypnotiser executed (Orzeszko, 1975). It seems that it was only after the failure of experiments with hypnosis that the Germans moved on to experimenting with narcoanalysis.

6. Conclusion

Today the use of narcoanalysis in criminal cases is rightly prohibited in most countries of Western civilisation. However, its use for intelligence and counterintelligence purposes is still a temptation that sometimes seems hard to resist. The history of narcoanalysis after the conclusion of the Second World War is a separate problem, and one of not only a historical nature (Kinzer, 2019). However, it lies beyond the scope of this work.

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