

# Neuroleptics outside psychiatry: sedating deviant youth in the 1960s and 1970s in Belgium's juvenile institutions

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## Histories of neuroleptics

The introduction of neuroleptics into psychiatry in the 1950s has been and continues to be described as a revolution on several levels. Firstly, the new drugs are said to have made psychiatric hospitals more manageable, with patients becoming less agitated and less noisy. Second, they are said to have definitively brought psychiatry into the therapeutic age, bridging the gap with other medical disciplines. With the gradual adoption of double-blind protocols to test them, neuroleptics seemed to endow psychiatry with a universally recognised degree of scientificity, and because their development was based on an understanding of molecular action in the brain, they hinted at new hypotheses regarding the causes of, and eventual cure for, mental illness. Finally, neuroleptics were described as having paved the way for psychotherapy within psychiatric hospitals and were even said to have contributed to the deinstitutionalisation that took place in various Western countries beginning in the 1960s.<sup>1</sup>

This narrative, which was endorsed by psychiatrists, nurses and patients (as well as by pharmaceutical companies), has long been called into question, and in recent years has undergone several revisions that paint a more nuanced picture. The introduction of neuroleptics is, first of all, part of a longer history of drugs in psychiatry and of psychiatric biology, which had given rise to therapeutic hopes as early as the inter-war period (e.g. shock therapy,

brain surgery, etc.) (Missa, 2006; Snelders *et al.*, 2006). A revisionist historiography has also shown that the definition of chlorpromazine as an antipsychotic drug took several years and that in psychiatric hospitals its introduction did not prevent the use of other drugs and therapeutic interventions. In addition to their therapeutic function, it became clear that neuroleptics, like other biological therapies, also had strong disciplinary potential. By paying more attention to discordant contemporary voices and by taking a more refined approach to the different actors in the story, a complex and multi-layered history has emerged (Majerus, 2019). Finally, the reality of psychiatric deinstitutionalisation and the factors that made it possible have given rise to a particularly lively historiography (Kritsotaki *et al.*, 2016; Guillemainet *al.*, 2018). The fact that the story of deinstitutionalisation has been told for many countries – even if, at present, only for countries in the West – has helped to further refine the narrative.

The historiography of neuroleptics is therefore particularly rich, and their use is certainly one of the best-studied phenomena in the history of twentieth-century psychiatry. However, as with other subjects, Greg Eghigian's call ten years ago to 'look for psychiatric work outside the asylum' has hardly been heeded with respect to the history of psychiatric medication (Eghigian, 2011: 209). The present work seeks to address this lack by examining the practices at one youth guidance institution in Belgium, emphasising three elements. Firstly, this chapter highlights the mobility of drugs – i.e. their ability to 'travel' across institutional barriers, unlike other therapies such as electroshock or insulin treatment, which are much less fluid. While the concept of 'drug trajectories' (Gaudillière, 2005) provides the starting point for this chapter, it of course raises questions about the mobility of practices. Historians often remain trapped by those who produce the sources they consult; by following an object – in this case a drug – they can leave the walls of psychiatry and discover new spaces (Ankele and Majerus, 2020). Secondly, we show how impoverishing it is to look at psychiatric institutions in isolation, since the various institutions of social deviance are linked through inmates, staff, objects and other elements – although their respective historiographies have often remained separate. Finally, we seek to deepen the debate around the therapeutic and/or disciplinary functions of these psychotropic drugs.<sup>2</sup>

## Biological psychiatry: an opportunity for child and youth psychiatry?

In order to sketch the prescriptive framework of the local practices at this Belgian institution, we consulted three relevant academic journals: *Sauvegarde de l'enfance* (1950–80), created in 1945 by French regional child protection associations, *Revue de Droit Pénal et de Criminologie* (1954–68), the leading journal for penal sciences in Belgium, and *Revue de neuropsychiatrie infantile et d'hygiène mentale de l'enfance* (RNIHME), created in 1953 by French-speaking psychiatrists, including Georges Heuyer, an international leading figure in child psychiatry.

Biological psychiatry was almost completely absent from the first two publications,<sup>3</sup> but in the RNIHME the situation was completely different. First of all, the journal illustrates a recent trend in the historiography on psychotropic drugs, which underscores to what extent the history of the latter must be understood within the broader field of early twentieth-century psychiatric biology: the child psychiatrists publishing in the RNIHME welcomed the entire arsenal of biological treatments. Shock therapies were considered 'feasible with children and adolescents' and electroshock was considered the 'easiest shock method to use with children' (Leroy, 1957). It is therefore not very surprising that psychotropic drugs were also seen as a therapy to be embraced. The vast majority of the articles that appeared in the RNIHME were enthusiastic about this new pharmacopoeia, which was described as 'a real revolution in psychiatry' (Brauner and Pringuet, 1963: 574). Support for the 'new' drugs was nearly unanimous. Most of the studies published in this journal dealt specifically with 'mentally deficient children' but the authors regularly used a broader framework: the most detailed study published in the 1960s covered a fairly heterogeneous population drawn from 'either the children's ward of the psychiatric hospital; or from an IMP [*Institut Médico-Pédagogique*]; or from a boarding school for children in the public assistance system; or from a delinquent's home' (Faure and Faure, 1960: 255). This endorsement was only slightly tempered by a warning of younger populations' high sensitivity to the new drugs. Thus, the above-mentioned study on the neuroleptic Levomepromazine underlined in its conclusion 'the extreme sensitivity of children to Nozinan [*Levomepromazine*]; the absolute necessity

of giving very low doses' (Faure and Faure, 1960: 279). From the late 1960s onwards, advertisements for drugs became more common in the RHIME. Most of these advertisements, such as the 1967 ad for the neuroleptic Haloperidol shown below, did not highlight their use with younger patients. Only the tranquilliser Diazepam, in 1968, promoted its specific use in paediatrics.

These elements – the importance of biological psychiatry and the positive reception of psychotropic drugs – must nevertheless be carefully put into context. The name of the source – the *Revue de neuropsychiatrie infantile* – also indicates its limitations: neuropsychiatry was not the major current within the field of deviant youth studies, which was dominated by criminology and rehabilitation-focused approaches, as we can see from the titles of the two other journals – *Sauvegarde de l'enfance* and *Revue de Droit Pénal et de Criminologie*.

### Saint-Servais: a particular place

In order to carry out this study, we looked at a specific type of institution that was born in the first half of the twentieth century in Western countries: medical-pedagogical observation centres/child guidance institutions, which were attached to the juvenile justice system.

In order to understand how and why psychiatric expertise entered the field of juvenile justice in Belgium and why it persisted in the 1960s and 1970s, it is important to look back at the new penal rationality that founded it. It may be recalled that the turn of the twentieth century was marked by the emergence of a new penal doctrine called 'social defence', influenced by the heightened importance of criminology. This reflected a paradigm shift from a liberal conception of the law, which focused on evaluating criminal facts and sanctioning them in proportion to their gravity, to a preventive conception linked to identifying and treating criminals. In this context, where the priority was on reducing the risk of further criminal behaviour, children and adolescents became legitimate and favoured targets of 'predictive' and socially efficient penal interventions (Niget, 2012). This new legislation was considered progressive at the time, favoured by experts and promoted by politicians such

as the socialist Emile Vandervelde, the Belgian Minister of Justice (Wagnon, 2017).

The 1912 Belgian Child Protection Act, which established juvenile courts, was part of the new penal rationality. This law replaced the notion of ‘discernment’ (the ability to tell right from wrong) with that of the educability of the individual offender. The juvenile justice system thus had to determine whether a young offender was educable. The question then arose of mental deficiency, the prevalence of which was pointed out by many pedagogical experts at the beginning of the century (including the Belgian educationalist and psychologist, Jean-Ovide Decroly), particularly among working-class families. Thus, the new law mandated a preliminary study of young delinquents’ environments and personalities, with input from a ‘social inquiry’ on the one hand, and a medical and psychological examination on the other. This examination, mandated by the juvenile court judge, was to be carried out in a ‘child guidance’ institution. Quantitative measurements of intelligence (IQ tests), along with a great number of psycho-technical tests imposed on the children, were therefore used to identify ‘mildly retarded’ individuals and to establish the boundary of the norm, below which intervention was necessary. In the aftermath of World War I, two Belgian state observation institutions, one for boys (Mol) and one for girls (Saint-Servais), successfully occupied the new formal space for experts created by the 1912 Child Protection Act. These two institutions were responsible for carrying out ‘observations’, but they were also reform schools. Despite the symbolic role of science in assessing juvenile delinquents, the inter-war years were still marked by a highly moral conception of deviance (De Koster and Niget, 2015). Similarly, the modalities used to treat ‘incorrigible’ youth within the reform schools remained predominantly disciplinary, even if experts pointed to problems of physiological or psychiatric origin (Massin, 2014).

The post-war period was one of institutional change in the area of child protection in Belgium. More generally, all over the Western world, children were subject to ‘therapeutisation’ by the sciences of the psyche, a process that gave birth to the concept of ‘maladjusted children’ (Heuyer, 1948). From 1947 onwards, the Saint-Servais staff were made up of professionals: trained social workers, both religious and non-religious, who acted as educators (case workers), a professional psychologist, a psychologist’s assistant and a psychiatrist.

At the time, psychology enjoyed great legitimacy, and the discipline gained great influence over juvenile justice practices and procedures. In addition to psychometric tests, many so-called ‘projective’ tests (e.g. the Rorschach) were used to assess the emotional states of young people. Nevertheless, one can observe the persistence of a medical approach towards juvenile inmates, which increased with the appearance of antipsychotic, antidepressant and anxiolytic drugs in the 1950s. In 1958, a group of psychiatrists working with the juvenile justice administration decided there was a need to create ‘relaxation sections’ for ‘difficult pupils’<sup>4</sup> at the institutions, where drug treatment would be the principal treatment.<sup>5</sup> Thus, in 1959, a Special Section was opened at Saint-Servais, where depressed and violent inmates were sent, away from the groups in the pavilion system. The juvenile reform system’s swift adoption of the scientific discovery of psychiatric drugs marked the return to a disciplinary order and a very deterministic interpretation of behavioural disorders in terms of pathological corporeality, while post-war psychology had promoted a more comprehensive approach to deviance.

The Special Section on which our observations are based was in operation from September 1959 to June 1976.<sup>6</sup> It was a small section, with just five beds originally (later eight). A case worker explained in 1966: ‘It would be reserved for more difficult cases, i.e. especially for nervous cases requiring a special diet. This experience would be halfway between the pavilions, which were suitable for most of the pupils and already well specialised, and the psychiatric clinics, where the most serious cases would continue to be sent’ (Caprasse, 1966: 1). It should be noted that the use of antipsychotic and neuroleptic drugs was not restricted to the Special Section; they were used in the other pavilions, but in limited quantities. Any patient receiving heavy medication that required more supervision was referred to the Special Section.

While the average number of placements per year for the entire observation institution was 200 during the 1960s, there were generally between 60 and 80 stays in the Special Section per year. Given that a number of girls stayed there several times, it can be estimated that 25 per cent of inmates were placed in the Special Section each year. In the 1970s, general admissions to the institution dropped to an average of 160 per year, and the number of young women in the

Special Section decreased to about 30 stays per year (less than 20 per cent of pupils).<sup>7</sup>

This Special Section saw a number of young women coming from and returning to the pavilions after their stay in the section, but there were also cases of girls entering the institution directly in a condition considered problematic, requiring isolation, medication and ‘thorough observation’.

The disciplinary dimension of the section was not hidden; as one case worker stated: ‘one of the main aims of the section will be to relieve the pavilion of troublesome elements’ (Caprasse, 1966: 2). Moreover, the staff testified to the difficulty of getting disciplinary cases to peacefully coexist in the section with truly pathological cases.

### A heterogeneous pharmacopoeia

Within the specific environment of the Special Section at Saint-Servais, we must first note the high rate of young women receiving psychoactive medication:<sup>8</sup> 57 per cent were subject to it. There is a notable discrepancy between the commonality of this practice and its relative invisibility in the sources. Psychoactive drugs hardly appear in the inmates’ individual files (see below), nor were they thematised in the annual reports, in which the psychiatrist on duty wrote a two-to-three-page subchapter every year without ever mentioning medication. Our quantitative results come from monthly synthetic tables summarising the situation in the Special Section.

Although only 65–100 women passed through the Special Section per year, making for a fairly small data set, it seems that the use of medication can be divided into three time periods. During the first four years (1959–62), the distribution rate of drugs was very high: on average, more than 75 per cent of the young women received them. In the second phase (1963–70), which lasted the next eight years, the rate fell below 45 per cent, before becoming very irregular during the last years for which we have data.

This significant use of psychoactive drugs was characterised by a large and varied pharmacopoeia. Over the fifteen years in question, we count roughly eighty different psychoactive drugs. Some were

prescribed on a regular basis; twelve were prescribed more than twenty times in the timespan. This great variety seems to indicate, on the one hand, a lack of standardisation, and on the other hand, a certain openness to experimentation. This intertwining of knowledge, practices and resources can be analysed as a form of ‘bricolage’ in the sense of Michel de Certeau (Certeau, 1980). Some drugs, moreover, were used in the same year as they were put on the psychiatric market, such as Haloperidol (in 1959) and Haloanisone (in 1961), two antipsychotics manufactured by the Belgian industrialist Janssen, as well as Swiss drugs such as the antidepressant Tofranil (in 1959) – indicating great porosity between the psychiatric and youth protection sectors. This porosity was perhaps also linked to the fact that the psychiatrist in charge of Saint-Servais was Fernand Arnould, a close collaborator of Joseph Paquay, one of the main Belgian psychopharmacologists.<sup>9</sup>

Four main groups of drugs were used: barbiturates, antipsychotics, antidepressants and minor tranquillisers.<sup>10</sup> Barbiturates were by far the most commonly prescribed drugs: 62 per cent of young women on medication at Saint-Servais took them, almost always Luminal (which accounted for 95 per cent of the barbiturates administered). This ‘old’ drug was first marketed in the early 1910s by Bayer, initially as an anticonvulsant for epileptics. It was widely used in (Belgian) psychiatry beginning in the inter-war period, both in and outside of hospitals, but was also commonly prescribed by general practitioners as a sleeping pill (Vijsselaar, 2010; Majerus, 2016; Massin, 2017). Luminal, probably the most widely used drug in psychiatry in the late 1940s, is one of the barbiturates that ‘survived’ the introduction of neuroleptics and continued to be used in psychiatry in the 1960s.<sup>11</sup> In the monthly listings, the word ‘Luminal’ is very often accompanied by the words ‘in the evening’ indicating its use as a sleeping pill, which was also its main use during those years in psychiatry, as a nursing sister recounts in her autobiography: ‘It was regularly given to patients in the evening. It calmed the patients and gave them a regular sleep schedule.’<sup>12</sup> While barbiturates did survive the introduction of neuroleptics, they were less resistant to the rise of minor tranquillisers. Whereas through the end of the 1960s, 75 per cent of the girls on medication at the institution were on barbiturates, after that the rate rapidly declined to below 10 per cent. At the same time the percentage of girls on tranquillisers rose.



The second major group of drugs were antipsychotics (33 per cent of young women in the institution, 58 per cent of those on medication). These came on the market in the early 1950s. Chlorpromazine, the first neuroleptic, was initially used in surgery, obstetrics and psychiatry. In the second half of the 1950s, it was increasingly defined and sold as an antipsychotic. Antipsychotics were characterised by fairly significant side effects, not only for the patients but also for those who distributed them (skin reactions). As with antidepressants, but in contrast to barbiturates, a great variety of antipsychotic drugs were used in Saint-Servais: Haloperidol (56 per cent), Truxal (10 per cent), Prazine and Largactil (each 11 per cent) were among the four most widely distributed antipsychotics, the latter being very present in the early years and then gradually disappearing. The sources do not give any explicit clues as to the reasons for this change; one hypothesis could be the particularly significant side effects of antipsychotics, which would then have been replaced by minor tranquillisers once those came on the market. These side effects, particularly trembling, explain why anti-Parkinson's drugs such as Cogentin and Disipal are also found among the list of administered drugs. Antipsychotics were prescribed two or three times a day, with the first administration normally taking place in the morning. In general, drugs seem to have been administered on a regular basis, rarely as a one-shot intervention. The posology varied greatly. A closer examination of Haloperidol administration shows that a patient received on average twelve drops (the range was between five and thirty drops) and that this did not fundamentally change over the years.<sup>13</sup>

The third most commonly used group of drugs were antidepressants (24 per cent of young women at the institution, 43 per cent of those on medication). Antidepressants had been on the market since 1955 and were a very gendered drug – they seem to have been absent from the equivalent institution for young men.<sup>14</sup> The antidepressants prescribed were quite varied: Tofranil (35 per cent), as well as Catovit (15 per cent) and Pertranquil (13 per cent), without any major changes over the years. Antidepressants were mainly administered in the morning and at midday, almost never in the evening.

The fourth and last major group were minor tranquillisers/anxiolytics (15 per cent of young women, 27 per cent of women on medication). First appearing in 1955, this was undoubtedly the

most commercially successful group of psychiatric drugs outside of psychiatric and other institutions (Tone, 2009). As with barbiturates, one drug dominated: Quaname represents 57 per cent of the anxiolytics prescribed at Saint-Servais. Valium, which was sold on the Belgium market from 1963 on, was the second-most used.

The last element to be highlighted is the combined administration of these psychoactive drugs. In fact, few women (12 per cent) were given only one drug. Half of them took two per day and the remaining 40 per cent took three or even up to seven different drugs per day. All combinations were represented, with the most common being barbiturates and antipsychotics (28 per cent of all young women on medication) and barbiturates and antidepressants (23 per cent), but 12 per cent received antipsychotics and antidepressants. Further research on similar institutions, as well as prisons and homes for the elderly, will be necessary to better contextualise these results.

### Uses of psychoactive drugs

The Special Section was run by a multidisciplinary team of specialists divided along typical gender lines, with psychiatry being considered a formalised and therefore male science, while psychology was seen as a more subjective and hence female discipline.<sup>15</sup> Medical treatment was determined by the doctor-psychiatrist, Dr Fernand Arnould, and stays were also supervised by the psychologist, Mrs G. Goosens. The therapeutic methods used were mostly individual, in contrast to care in the pavilions, which was based on a group dynamic. These were mainly ‘occupational therapy’ (i.e. manual activities and housework), play, and psychotherapy with the psychiatrist, including interviews and drug treatments. These methods were similar to those used in psychiatric clinics, without going as far as ‘heavy’ treatments, as the psychiatrist explained in 1966: ‘no sleep cure here, no electroshock, no insulin cure’. The length of stays varied greatly, from a few days to several weeks, with frequent return visits for some patients, sometimes spread over several years.

It should be noted that the girls in the population studied were under judicial investigation. They were detained in the establishment by court order, so as to best inform the decision of the juvenile judge who would monitor their observation. They most often came

from working-class families,<sup>16</sup> in which, according to the experts, they had frequently suffered violence or at least educational neglect. Those in the Special Section were older than the average girl at the institution. The majority were between 16 and 20 years of age, and about 20 per cent were between 14 and 16 years of age, covering the period of adolescence. With regard to their social situation, they were often failing at school or, in the case of working girls, were professionally unstable. Among the ‘factors’ contributing to their deviance, investigations (police investigations as well as social investigations) very frequently pointed to problems linked to sexuality that was deemed inappropriate: ‘early’ sexuality, early pregnancy, prostitution or the like, having many partners, homosexuality, having significantly older sexual partners, having leisure activities linked to sexuality or running away for reasons thought to have to do with sexuality, and finally, incest – which only began to be named as a reason for deviance in the 1970s (Niget, 2011). This preponderance of sexuality in the aetiology of girls’ deviance contributed to a representation of sexuality as pathological, with girls being judged incapable of controlling their ‘sexual impulses’. This had pathological and psychological consequences, which the psychiatrist referred to in his 1967 report as a ‘kind of nymphomania’ and which seemed to him to be generalised among the girls. Several other pathologies were gradually named in the 1960s and 1970s. These included ‘depression’, along with what experts considered to be its marker, suicide attempts, which were thus scrupulously noted in patients’ files. In 1966, the director of Saint-Servais noted an increase in suicide attempts beginning in 1964 (Caprasse, 1966: 71). In addition, drug use – hashish and LSD – was identified as a problem by the psychiatrist in his 1969 report and was quantified in the 1972 report, which stated that 62.5 per cent of inmates used drugs. The phenomenon was associated with ‘hippie’ culture, but in this case was considered not a form of political protest, but rather a manifestation of the anomic situation in which young people found themselves.<sup>17</sup> It is interesting to note that in spite of disapproval of the misuse of psychotropic substances among youth, the institution prescribed them large quantities of antipsychotic medications.

According to an assessment by the staff of Saint-Servais, about one-third of the pupils coming from all pavilions who entered the school had significant psychological or psychiatric problems, a

phenomenon that would increase over the period under study.<sup>18</sup> However, the young people sent to the Special Section were not, from a psycho-pedagogical point of view, the most troubled: the reports and files show that they obtained better results on IQ tests than the average pupil at the institution.<sup>19</sup> This was in contrast to the image held by pupils in the other pavilions, who referred to the Special Section as ‘the silly pavilion’ (Caprasse, 1966: 68). However, the institution considered itself not a psychiatric institution but an educational one, which probably explains the relative rarity of strictly psychiatric comments in the archival material, whether in the aetiology of the causes behind a young person’s placement in the institution, case analyses in individual files or the proposals for measures made to the judge.

In the monthly registers of the Special Section, which include individual case descriptions, there are few direct references to psychiatric diagnoses. If we focus on the two groups of drugs whose indications are clearly related to psychiatric diagnoses – antidepressants and antipsychotics – most used words to describe their behaviours give early suggestions of the behaviours that might lead to their administration.

While remaining cautious, it can be hypothesised that the two main families of drug treatments included here (antidepressants and antipsychotics) correspond more or less to the two main categories of causes for placement in the Special Section: namely, a depressive state on the one hand, and violent/undisciplined behaviour on the other.

When focusing on the most used words in the description for young women who were prescribed antidepressants,<sup>20</sup> it was, unsurprisingly, the term ‘depressed’ that was most frequently employed in relation to girls who were administered antidepressants, pointing to an institutional thematisation of depression as an emerging pathological form in the 1950s and 1960s. This can be associated with the reference to ‘suicide attempts’, which occurred relatively frequently. In 1966, a case worker noted that the proportion of depressed inmates had increased between 1963 and 1966, which for her corresponded to a morbid evolution in the mental health of young people. This phenomenon can be interpreted both as greater consideration of the issue of depression in educational and therapeutic practices, and as an effect of this new class of drugs, which required

MARS 1960

- SECTION - SPECIALE -

Noms des élèves	Date naie et R.I.	Jurisdiction et date entrée St.	Venant de	Date entrée Section	Motif entrée	Traitement médical	Date sortie	Motif sortie
JACQUELINE	42 75	Charleroi 30.9.59	F. 3	2.3.60	Oubliée par souvenir mater- nel et la situation malheu- reuse de ses sœurs Comportement bizarre (déchire son linge, refus de manger, de bloquer dans sa chambre) Matisme - Parle seule dans sa chambre, orie et chante.	1 Largactil + 1 Luminal le soir	4.3.60	Afin d'éviter de perturber davantage cette élève, un essai de placement en bons est tenté (Chalet)
GEORGETTE	45 74-80	Courtrai Réint. 21.3.59	F. 3	4.3.60	Colérique et esportée - casse les carreaux de sa chambre - menace de fuite	Largactil 2 à 4 par jour	12.3.60	Retour en F.
BENSADETTE	41 95	Charleroi Réint/ 4.3.60	F. 3	7.3.60	Tendance agressive et de ré- volte liées à des sentiments d'amertume, de frustrations, et un désir de vengeance; Déprimée - très opposante.	Pertranquil et Frasmine 2 par jour + luminal le soir A surveiller de près pour tentative de pratique avortive.	16.3.60	Institut Ste Marguerite de Cortone Anvers
MARCELLE	40 90	Charleroi Réint. 2.12.59	F. 1	8.3.60 2e pl.	Crise d'impulsivité: a giflé une maîtresse. Doit être isolée pour sauvegarder l'autorité	2 Frasmine (Largactil + teinture de bella- done	12.3.60	Retour en F. 1
FRIEDA	44 81	Anvers 8.2.60	F.10	8.3.60 2e pl.	Nouvelles crises - dangereuse pour les autres (mord, griffe) Très opposante et déprimée	1 Trofanil matin et soir + luminal	21.3.60	En cure libre à Bethanienbus Brecht
MARIE-ALEXE	45	HUY	F.6	9.3.60	Très déprimée - fort nerveuse- en réaction contre sa mère - instabilité extrême avec note puérile - tendance névrotique	1 Trofanil midi et soir 1 Luminal le soir	21.3.60	Essai de placement à Huy L'internat ne convenant pas à cette jeune fille dépress- sive.

Vu en mars 1960

Figure 11.1 A sample of the monthly registers of the Special Section. AEB, Namur, EOESS, Call numbers 98-114 (1959-75).

a diagnosis of depression in order to be administered. Nevertheless, suicide was treated in a relatively varied manner: it was seen as a real risk for girls (who were therefore heavily medicated), but was also sometimes minimalised, with ‘small attempts’ reported more as a form of indiscipline than as a sign of suffering, and the terms ‘pithiatism’ or ‘hysterical’ used to describe situations where girls entered into suicidal crises judged to be ‘exaggerated’ and ‘absurd’ (i.e. not tangible).

The term ‘group’ is also very present in our corpus, pointing to the idea that the girls who were placed in Special Section were incapable of living among the pavilion groups (i.e., in the other sections of the institution): it was thought that ‘group life’ was harmful to them, given the vulnerability of their psyches. Another important aspect is that the staff were wary of the ‘contagious’ nature of depression within a group. For example, Anne-Laure,<sup>21</sup> who cried for hours, describing her suicidal thoughts, was said to need to be placed in the Special Section because she had caused a disturbance: ‘several pupils start crying, show themselves depressed ... [For some girls], the doses of drugs need to be increased, and some who were not taking them now ask for them’ (Caprasse, 1966: 21).

Similarly, the term ‘runaway’ was also common among girls deemed ‘depressed’. It indicated a desire for freedom expressed by the girls: for example, Henriette ‘Did not return on her first weekend – upon return was very depressed and stubborn – does not accept any educational influence – remains and isolates herself in her only problem “need for freedom”.’<sup>22</sup> Saint-Servais staff considered running away above all as a behavioural problem, a symptom of malaise. As a result, running away from the institution often justified drug treatment. There were frequent reports of ‘mock runaways’ – pupils pretending to run away to attract attention. Moreover, from 1968–69 onwards, running away was associated with the hippie movement and drug use, a factor that was seen to amplify the state of depression: Germaine was ‘Returning from escape – very badly off physically – depressed – had new experiences (hippie groups, drugs, etc.).’<sup>23</sup>

Finally, despite the fact that depression was emphasised, the terms ‘difficult’, ‘aggressive’, ‘refuses’ and ‘troublesome’ indeed refer to behaviour deemed violent at the institution, from which we can conclude the relative porosity between the two main categories found in the institution’s reports: the ‘undisciplined’ and the ‘depressed’.

Administration of antipsychotics was linked to a state of opposition to or even violence against institutional discipline, as is shown by the terms ‘difficult’, ‘aggressive’, ‘disruptive’ and ‘impulsive’ among the reasons for sending girls to the Special Section and giving them antipsychotic drugs. The generic term used in the annual reports was ‘caractérielles’ (temperamental). This aggressiveness could be directed against ‘the group’, i.e. fellow inmates, but also against ‘authority’, i.e. the staff. It frequently took a rather violent turn, with many episodes of ‘anger’, the breaking of windowpanes, objects and furniture, and physical violence between girls or towards the staff (knife threats, beatings). The consequences of episodes included frequent running away and threats of suicide, as for Jeanne: ‘Spectacular scenes, screams – attempts to run away – protests – hair pulling, etc... Threatened to throw herself out of the window – stood for a long time on the windowsill with a knife in her hand.’<sup>24</sup> In the clinical descriptions of these cases, the disciplinary issue seemed to take precedence; thus Janine was ‘Sowing evil spirits in the group – undermining authority. Strong impulsivity with violent reactions – dangerous to self and others.’<sup>25</sup> Indeed, a number of girls interviewed about their time in the Special Section considered their stay ‘punishment’ rather than therapeutic treatment (Caprasse, 1966: 27).

The terms ‘bizarre’, ‘nervous’, and ‘stubborn’ refer to the perception of more marked pathological states, generally referred to as ‘psychopathological cases’, which the monthly situation reports attest to: Jacqueline was ‘obsessed by maternal memory and the unfortunate situation of her sisters. Strange behaviour (tears her laundry, refuses to eat, locks herself in her room) mutism – talks alone in her room, shouts and sings’;<sup>26</sup> Maryvonne had ‘Hysterical tendencies – strange, even dangerous external behaviour – requires more individual observation.’<sup>27</sup> The proportion of inmates with a severe mental disorder increased during the period studied. Caregivers saw this as a deterioration in the mental health of the young people sent to the institution, but we can also interpret it as a progressive inclination to problematise juvenile deviance in more psychiatric terms, a turn that may have been encouraged by the very existence of the Special Section. In the 1960s, the director even considered creating a new section for these ‘psychopathological’ cases, but this did not happen. It should be pointed out that some girls deliberately engaged in erratic behaviour to protest against an institutional regime that they

considered harsh and, in a way, grotesque. Acting foolishly may thus have been a form of resistance for the girls, ironically displaying public behaviour at odds with their private views. In the last years of the Special Section's operation, the annual reports mentioned the difficulty of caring for this population of 'neurotic' young people.<sup>28</sup>

### From treatment to placement: the institutional trajectories of medicated youth

What were the institutional trajectories of girls placed on antipsychotic medication? Did they differ from those of the general population of girls in Saint-Servais? Was the therapeutic approach consistent with subsequent placement decisions? Analysis of the reasons why girls who were given medication left the Special Section yields several interesting insights. Firstly, the overwhelming majority were returned to the institution after their stay in the Special Section (43 per cent), either to the same pavilion or to another pavilion where the group and educational methods differed significantly (more or less autonomy given to the young people). Thus, many girls went back and forth between the Special Section, where they received heavy medication, and the living quarters, where the administration of medication was lighter.

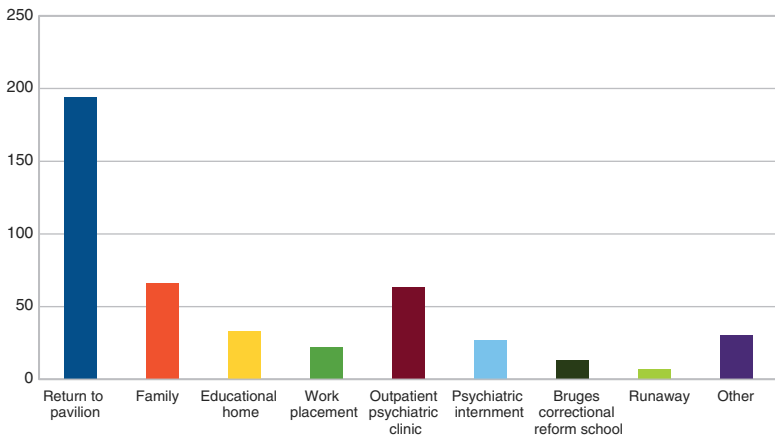


Figure 11.2 Reason for release from the Special Section, St Servais (1959–75).



Returning to the family home (15 per cent) was considered by staff and judges to be the preferred outcome for the girls, especially those who seemed vulnerable, depressed, and to whom the family could offer support – provided the family was not the cause of anxiety in the eyes of the Saint-Servais staff. Medical or psychological follow-up could then be recommended at home, in cooperation with the parents.

Placement in educational homes – small institutions with more flexible routines – was also an option (7 per cent), especially for girls who demonstrated a ‘weariness’ of institutional ‘discipline’ (a euphemism used to indicate that they were exhausted or hopeless), but who were not deemed dangerous or antisocial.

Work could also have been seen as a form of rehabilitation: 5 per cent of the girls were placed with employers in the nearby city of Namur, in ‘semi-liberty’, often working as domestic servants in upper-class houses or in shops or workshops in the city and returning to the institution in the evening.

The most significant form of outplacement for our study was in psychiatric institutions, which accounted for 20 per cent of all placements after a stay in the Special Section. Fourteen per cent of these placements were designated as ‘free cures’ in a psychiatric clinic or medical-pedagogical institute. Young people would attend these institutions during the day (ambulatory) and return home in the evening. The best known and most frequently recommended was Dr Titeca’s clinic in Brussels. It should be noted that ‘free’ did not mean ‘freedom’: if girls did not comply, the children’s judge could request that they be returned to Saint-Servais, which happened relatively often according to our records.

Aside from free cures, 6 per cent of the inmates were placed in residential psychiatric institutions. This sometimes also entailed legal internment that was equivalent to detention (a measure called ‘collocation’ in Belgium), which was used for psychiatric cases deemed serious and lasting. These institutions included the state asylum in Mons and the clinic in Braine l’Alleud, south of the Brussels conurbation. The famous Geel psychiatric colony was also favoured. Several girls were sent to the Beau Vallon psychiatric clinic, located a few hundred metres from the Saint-Servais reform school.

Finally, we note the persistence of a strictly disciplinary treatment for a few cases deemed problematic. Throughout the period under study, girls judged ‘unmanageable’ were regularly sent to the

correctional institution of Bruges (3 per cent, or thirteen individual cases). This was a public institution specially dedicated to the treatment of unruly girls. The last resort there was the use of coercion and extreme surveillance, which led to institutional violence, as Veerle Massin has shown in her research (Massin, 2014). Being sent to this disciplinary institution could also be a prelude to psychiatric confinement, as this 1959 file shows: ‘Strong oppositional tendencies: refusal to stand up, to work – which manifests itself in very violent aggression – is dangerous – was observed in 1954. Transferred to State Reform School of Bruges and from there collocated at the asylum in Mons.’<sup>29</sup>

Lastly, running away offered an alternative to institutional constraints for a certain number of young inmates (2 per cent) who refused placements that they considered arbitrary. Running away was considered an indication of a pathological condition by the experts at Saint-Servais, who used this to justify heavy medication upon the runaway’s return to the institution. Overall, analysis of the institutional trajectories of the medicated young women shows that although they were more likely to be sent to psychiatric care institutions than anywhere else, the majority were not. This indicates that the main purpose of medication was to serve as a transitional therapy and possibly also to improve discipline.

### **Subjectivities: perception of antipsychotic treatments**

In addition to the quantitative approach detailed above, we also took a closer look at individual young women’s files. We studied the files of thirty-seven young women who received psychoactive medication: in just over half the files (twenty), medication was not mentioned at all, while in the other files it was most often only briefly referenced. These files nevertheless allow some additional glimpses of practices. The young women interned at Saint-Servais had the option of refusing medication. Margot, aged 17, was given heavy antipsychotics – Haloperidol in the morning and at noon – and antidepressants in the evening. At one point, she clashed with the educational team over a question of borrowing books and refused to eat or to take her medication. She was obliged to sign a form clearing the institution – ‘I certify that I refused the following meals

on Wednesday 23 March: snack, supper and medication’ – but according to this document, her refusal had no other consequences.<sup>30</sup> Secondly, the same file indicates that the doctor gave some latitude in his prescriptions, and the drugs were clearly framed in terms of a behaviour control paradigm. On the one hand, the psychiatrist indicated that the ten drops of Haloperidol at lunchtime could be replaced by the weaker Truxal tablet once Margot started to work, probably to avoid the excessive drowsiness caused by Haloperidol. At the same time, he also wrote that ‘in case of minor worsening, we could double the morning and evening dosages, adding about twenty drops of Prazine.’<sup>31</sup> The third element found in some of the files is that several young women had already taken psychotropic drugs before coming to Saint-Servais, either in other institutions or on an outpatient basis through a general practitioner’s prescription – a sign of the ubiquity of psychoactive drugs in the 1960s.<sup>32</sup>

## Conclusion

At the end of this exploratory study dealing with a new object in historiography, we would like to emphasise that the introduction of neuroleptics changed institutional practices in Saint-Servais significantly with the setting up of this Special Section, gradually transforming the problem of indiscipline, which was the primary reason for the introduction of drug treatments, into a question of pathology and care. The treatment of a significant proportion of inmates between 1959 and 1975 within the Special Section (20 to 25 per cent), as well as the massive use of neuroleptics and antidepressants within this section, is a significant fact in the history of the institution. It marks a moment in the history of youth welfare, when juvenile deviancy was seen as a behavioural problem, under the combined influence of the ‘sciences of the psyche’, psychology and psychiatry. This trend was transnational, as evidenced, among other sources, by work of the World Health Organization in the 1950s and 1960s (Bovet, 1951; Gibbens, 1961). Moreover, faced with increasing contestation of discipline within institutions, both by the young people themselves and by various staff members, the introduction of neuroleptics may have offered an alternative deemed less authoritarian, one based on the rationality of care rather than

correction. It can also be argued that neuroleptics offered a way of updating or perpetuating coercive practices through science and therapy, which would soon be called into question by the social and political contestation of the sixty-eighters. It should also be considered that as physical punishment was increasingly prohibited in youth welfare institutions, therapeutic discipline offered an alternative that was regarded as more humane. This question remains to be discussed from our contemporary point of view as historians of youth welfare and psychiatry.

At the same time, the introduction of neuroleptics can be described as a ‘non-event’ since it was rarely mentioned in the archives other than as a formality. One possible hypothesis for this silence would be that psychiatry was not central to these youth welfare institutions. The dominant paradigm was that of education, not of care/cure. Although the introduction of neuroleptics did indeed change institutional practices, it did not change the regime of institutional discourse. The rationality of child guidance institutions was based mainly on an aetiology of deviances rooted in moral fault (due to the penal judicial origin of this rationality), and on the possibility of ‘re-education’ through pedagogical techniques, reinforced after World War II by psychological techniques that centred on the person as a subject. From this perspective, psychiatry appeared to be peripheral, and even underscored a certain failure of the institution to rehabilitate young people, which explains why the treatment method for ‘neurotic’ inmates remained segregation, either in a special section or in correctional institutions (such as the one in Bruges) or in purely therapeutic institutions (psychiatric clinics).

Whatever the meaning of this silence, the cohabitation of two correctional regimes – the first based on deviance and its retribution, the second on behaviourism and a therapeutic approach – opened up a space after World War II for experimenting with multiple practices at the intersection of care and punishment.

The question of how young people perceived these psychiatric practices, particularly the use of medication, remains to be more precisely documented. It is possible that the use of medication profoundly changed the institutional experience of young people, but this remains to be verified through a meticulous search for youth voices in the individual case files.

## Notes

- 1 See the many books by Edward Shorter, including Shorter, 1997. For a critical discussion of these apparent breaks with the past see Henckes, 2016.
- 2 The quantitative data used in this text are based on exhaustive encoding of the monthly entry and exit registers of the Special Section of Saint-Servais, from its opening in 1959 to its closure in 1975, which include 820 entries (some inmates appear several times). The encoded data are as follows: surname, first name, date of entry, reason for entry, medical treatment (name of medication, dosage and frequency of administration), date of exit, measures taken on exit (type and location of placement). A reproduction of the register is available in this article (see below). The qualitative data are based on examination of a sample of thirty-seven individual files randomly selected from among the files of girls who were treated with neuroleptics. Archives de l'Etat en Belgique (hereafter AEB), Namur, Etablissement d'Observation de l'Etat de Saint-Servais (hereafter EOESS), Record number BE-A0525.444, Call number 98–114, Monthly registers of the Special Section (1959–75).
- 3 One of the only articles in these two journals that explicitly discussed the use of psychotropic drugs seemed to prefer shock therapy as it considered these new drugs dangerous (Aubin and Aubin, 1962).
- 4 The population at Saint-Servais was comprised of young women aged 12 to 20 who were legally mandated to be there and could not lawfully leave at will, yet the institution considered itself not a prison or psychiatric institution but rather a reform school. Therefore, in keeping with the source material, we refer to the young women who lived there as 'inmates', 'pupils', 'young women' and 'girls'. It may be noted that the term 'patient' is never used.
- 5 AEB, Beveren, RK/ROG Brugge, n°72, Minutes of a meeting of psychiatrists organised by the administration, 21 November 1958. Quoted by Veerle Massin (Massin, 2014).
- 6 The monthly reports and the annual report for 1976 attest to this, but no qualitative comments are made in the available documents regarding the reasons for this closure. However, it should be noted that, from 1973 onwards, the Special Section was no longer the subject of specific analysis in the annual reports (statistical tables). It should also be noted that in 1972, a 'pavilion 9' was opened, reserved for the 'most difficult cases', which may explain why the Special Section then lost part of its disciplinary function. AEB, Namur, EOESS, Call numbers 29–53, Annual reports (1931–89).

- 7 The model for juvenile deviance treatment then shifts from custodial institutions to the outplacement system.
- 8 AEB, Namur, EOESS, Call numbers 98–114, Monthly registers of the Special Section (1959–75).
- 9 Missa, 2010. Within this framework, Arnould co-published about ten scientific articles on antipsychotics between 1959 and 1965, for example, Paquay *et al.*, 1959.
- 10 We have adopted a categorisation used by Tone (2009) and others which mixes substance-oriented and effect-oriented categories, illustrating the blurred boundaries that characterise psychiatric drugs.
- 11 It continues to be used today as an anticonvulsant.
- 12 ‘On le donnait régulièrement aux malades le soir. Il calmait les malades et donnait un sommeil régulier’ (De Cock, 1986: 58).
- 13 According to Benkert and Hippus (1976: 164–6), ten drops correspond to one milligram. The same book suggests three times 0.5 mg per day for Haloperidol as a standard dose.
- 14 At the Etablissement central d’observation pour garçons in Mol, the parallel institute for young men, the invoices for medication contain the names of antipsychotics but not antidepressants: AEB, Beveren, Etablissement central d’observation pour garçons à Mol, Call number 2381, Factuurboek 1958–59.
- 15 The ability of women to enter the field of child psychology in the twentieth century, in the name of maternalist arguments, nevertheless led to the undermining of this professional practice in the face of the medical and psychiatric disciplines, which were held by men and therefore considered more scientific (Hoogland Noon, 2004: 107–29).
- 16 This broad category needs to be refined, but this is not the purpose of this chapter.
- 17 See in particular the 1972 annual report, which provides an in-depth analysis of the ‘causes’ of youth deviance. AEB, Namur, EOESS, Call numbers 29–53, Annual reports (1931–1989).
- 18 For example, the 1972 report mentions a ‘large percentage of pupils with insufficient nerve balance (29.5%)’. *Ibid.*
- 19 *Ibid.*; Caprasse, 1966: 7.
- 20 We have fully transcribed the ‘entry patterns’ for all women admitted, as recorded in the monthly summaries, and entered them into Voyant Tools which is an open-source, web-based application for performing text analysis. On Voyant Tools: Alhudithi, 2021.
- 21 First names have been changed to preserve anonymity.
- 22 ‘Pas rentrée lors de son premier W.E.- à son retour est très déprimée et butée – n’accepte guère l’influence éducative – reste et s’isole dans son unique problème “besoin de liberté”.’ AEB, Namur, EOESS, Call

- numbers 98–114, Monthly registers of the Special Section, HJ, Entry 1970–08–01.
- 23 AEB, Namur, EOESS, Call numbers 98–114, Monthly registers of the Special Section, GD, Entry 1969–11–14.
- 24 AEB, Namur, EOESS, Call numbers 98–114, Monthly registers of the Special Section, JS, Entry 1960–01–04.
- 25 AEB, Namur, EOESS, Call numbers 98–114, Monthly registers of the Special Section, JL, Entry 1959–09–01.
- 26 AEB, Namur, EOESS, Call numbers 98–114, Monthly registers of the Special Section, JB, Entry 1960–03–02.
- 27 AEB, Namur, EOESS, Call numbers 98–114, Monthly registers of the Special Section, MS, Entry 1970–05–21.
- 28 AEB, Namur, EOESS, Call numbers 29–53, Annual reports (1931–89).
- 29 AEB, Namur, EOESS, Call numbers 98–114, Monthly registers of the Special Section (1959–75).
- 30 AEB, Namur, EOESS, Call numbers 570/1 to 862 for the observation files for minors, Observation file, A1012.
- 31 AEB, Namur, EOESS, Call numbers 570/1 to 862 for the observation files for minors, Observation file, A1108, Medical form (undated, unsigned).
- 32 An article published in 1962 by a child psychiatrist who treated children on an outpatient basis states that half of the children had already received medication before being treated by him (Lécuyer, 1963: 408).

## References

- Alhudithi, Ella, 2021, 'Review of voyant tools: See through your text', *Language Learning & Technology*, 25:3, 43–50.
- Ankele, Monika and Benoît Majerus (eds), 2020, *Material Cultures of Psychiatry* (Bielefeld: Transcript).
- Aubin, Henri and Bernard Aubin, 1962, 'Formule nouvelle d'assistance: Clinique neuro-psychiatrique infantile: Bilan d'une expérience de cinq ans', *Sauvegarde de l'enfance*, 17:8, 495–503.
- Benkert, Otto and Hanns Hippus, 1976, *Psychiatrische Pharmakotherapie: Ein Grundriß für Ärzte und Patienten* (Berlin: Springer).
- Bovet, Lucien, 1951, *Psychiatric Aspects of Juvenile Delinquency: A Study Prepared on Behalf of the World Health Organization as a Contribution to the United Nations Programme for the Prevention of Crime and Treatment of Offenders* (Geneva: World Health Organization).
- Brauner, F. and G. Pringuet, 1963, 'Les traitements médicaux des enfants déficients mentaux', *Revue de neuropsychiatrie infantile*, 11:9–10, 571–82.

- Caprasse, Claire, 1966, *La Section Spéciale dans le cadre de l'Etablissement d'Observation et d'Education de l'Etat, de Saint-Servais* (Brussels: Ministère de la Justice, Office de la protection de la jeunesse, Centre de formation et de perfectionnement des cadres).
- Certeau, Michel de, 1980, *Arts de faire* (Paris: Union d'éditions).
- De Cock, Françoise, 1986, *Plus d'un demi-siècle au service des malades mentaux* (Namur: n.p.).
- De Koster, Margo and David Niget, 2015, 'Scientific expertise in child protection policies and juvenile justice practices in twentieth-century Belgium', in Joris Vandendriessche, Evert Peeters and Kaat Wils, *Scientists' Expertise as Performance: Between State and Society, 1860–1960* (London: Pickering & Chatto), pp. 161–72.
- Eghigian, Greg, 2011, 'Deinstitutionalizing the history of contemporary psychiatry', *History of Psychiatry*, 22:2, 201–14.
- Faure, H. and M. L. Faure, 1960, 'Le Nozinan en neuro-psychiatrie infantile', *Revue de neuropsychiatrie infantile et d'hygiène mentale de l'enfance*, 8:5–6, 254–86.
- Gaudillière, Jean-Paul, 2005, 'Introduction: Drug trajectories', *Studies in History and Philosophy of Biological and Biomedical Sciences*, 36:4, 603–11.
- Gibbens, Trevor Charles Noël, 1961, *Trends in Juvenile Delinquency* (Geneva: World Health Organization).
- Guillemain, Hervé, Alexandre Klein and Marie-Claude Thifault (eds), 2018, *Fin de l'asile?: Histoire de la déshospitalisation psychiatrique dans l'espace francophone au XXe siècle* (Rennes: Presses universitaires de Rennes).
- Henckes, Nicolas, 2016, 'Magic bullet in the head? Psychiatric revolutions and their aftermath', in Jeremy Greene, Flurin Condrau and Elizabeth Siegel Watkins (eds), *Therapeutic Revolutions: Pharmaceuticals and Social Change in the Twentieth Century* (Chicago, IL: University of Chicago Press), pp. 65–96.
- Heuyer, Georges, 1948, *Aspect médical de l'Enfance inadaptée* (Paris: Ecole des Parents et des Educateurs).
- Hoogland Noon, David, 2004, 'Situating gender and professional identity in American child study, 1880–1910', *History of Psychology*, 7:2, 107–29.
- Kritsotaki, Despo, Vicky Long and Matthew Smith (eds), 2016, *Deinstitutionalisation and After: Post-War Psychiatry in the Western World* (London: Pickering & Chatto).
- Lécuyer, Robert, 1963, 'De l'utilisation de la thioridazine comme traitement symptomatique de l'instabilité psychomotrice chez l'enfant (81 cas traités en ambulatoire)', *Revue de neuropsychiatrie infantile*, 11:7–8, 407–13.
- Leroy, Robert, 1957, 'Thérapeutiques de choc en neuro psychiatrie infantile', *Revue de neuropsychiatrie infantile et d'hygiène mentale de l'enfance*, 5:11–12, 547–51.



- Majerus, Benoît, 2016, 'Making sense of the "chemical revolution": Patients' voices on the introduction of neuroleptics in the 1950s', *Medical History*, 60:1, 54–66.
- Majerus, Benoît, 2019, 'A chemical revolution as seen from below: The "discovery" of neuroleptics in the Paris of the 1950s', *Social History of Medicine*, 32:2, 395–413.
- Massin, Veerle, 2014, "'La Discipline". Jeunes délinquantes enfermées, violence institutionnelle et réaction disciplinaire: Une dynamique (Belgique, 1920–1970)', *Crime, Histoire & Sociétés / Crime, History & Societies*, 18:1, 31–56.
- Massin, Veerle, 2017, 'La consultation d'hygiène mentale, le patient et le psychiatre (Belgique, 1920–1940)', *Journal of Belgian History*, 48:4, 144–64.
- Missa, Jean-Noël, 2006, *Naissance de la psychiatrie biologique: Histoire des traitements des maladies mentales au XXe siècle* (Paris: Presses universitaires de France).
- Missa, Jean-Noël, 2010, 'Peut-on parler de militantisme psychopharmacologique chez les pionniers de la psychiatrie biologique (1952–1960)?', *Sud/Nord*, 25:1, 105–20.
- Niget, David, 2011, 'Le genre du risque: Expertise médico-pédagogique et délinquance juvénile en Belgique au XXe siècle', *Histoire@Politique*, 14:2, 38–54.
- Niget, David, 2012, 'L'enfance irrégulière et le gouvernement du risque', in David Niget and Martin Petitclerc (eds), *Pour une histoire du risque: Québec, France, Belgique* (Québec: Presses de l'Université du Québec), pp. 297–316.
- Paquay, Joseph, Fernand Arnould and P. Burton, 1959, 'Le traitement par le Tofranil de la phase dépressive de la psychose maniaco-dépressive', *Acta Neurologica et Psychiatrica Belgica*, 59:8, 958–65.
- Shorter, Edward, 1997, *A History of Psychiatry: From the Era of the Asylum to the Age of Prozac* (New York: John Wiley & Sons).
- Snelders, Stephen, Charles Kaplan and Toine Pieters, 2006, 'On cannabis, chloral hydrate, and career cycles of psychotropic drugs in medicine', *Bulletin of the History of Medicine*, 80:1, 95–114.
- Tone, Andrea, 2009, *The Age of Anxiety: A History of America's Turbulent Affair with Tranquilizers* (New York: Basic Books).
- Vijselaar, Joost, 2010, *Het gesticht: Enkele reis of retour* (Amsterdam: Uitgeverij Boom).
- Wagnon, Sylvain, 2017, 'Entre libéralisme et progressisme: l'influence d'Adolphe Prins (1845–1919) dans la théorisation de la défense sociale et la construction de la protection de l'enfance en Belgique', *Criminocorpus*. <https://doi.org/10.4000/criminocorpus.3410> (accessed 7 August 2023).