

‘The Time of Storms’: managing bourgeois girls’ puberty in France, 1800-1870

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Abstract: This article examines the medical literature published in France in the period 1800-1870 on the subject of puberty and menstruation to argue that, in conjunction with the extension of school life for bourgeois girls, the period saw the emergence of a distinctive conception of feminine adolescence that predates the better-known concepts articulated in the late nineteenth century. It goes on to look beyond the scientific discourse to ask what impact this new medical understanding had on the management of girls’ puberty, examining first the way it affected school practice, before using a detailed case-study of the life of Solange Dudevant to highlight the ways in which medicalised understandings of puberty and menstruation co-existed with other forms of knowledge.

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In 1835, in a key passage of his treatise on girls' physical education, Parisian doctor Antoine-Martin Bureaud-Riofrey (1803-c.1849) provided a vivid description of the moment of puberty in a young woman: 'assaulted on all sides by sensations, diverse pains and discomforts, her blood bubbles in her swollen veins, she is burning hot in one moment, and icy the next. Finally, the vital force turns to an organ which until then was resting...the young girl has entered puberty!!! [sic]'.¹² Although Bureaud-Riofrey's tone and punctuation was more than usually melodramatic, in characterizing puberty as a stormy period (*le temps des orages*), his treatise picked up on a phrase recurring in many contemporary scientific analyses. The language of storms and crisis was also common in lay writings. Thus in 1840, the novelist George Sand (1804-1876), commenting first to a friend on her daughter Solange's 'tumultuous and fantastical mood', wrote to request a visit from the family doctor because her daughter Solange had just 'experienced a small crisis'.³ For specialists and lay-people in nineteenth-century France, puberty was increasingly conceived of as a moment of radical upheaval in the lives of girls, and one deserving of special medical attention.

The historiographical consensus has been that it was not until the late nineteenth-century that the notion that adolescence formed a coherent phase of a young person's life became commonplace.⁴ Thiercé argues that adolescence was conceived as a distinctive phase in a boy's life as a result of the demarcation in the mid-nineteenth century of a long interim period between entry to the *lycée* at age eleven or twelve and the transition to adulthood signalled by earning the *baccalauréat*. Adolescence, she contends, was constructed on the basis of bourgeois male experience, and it was not until the end of the nineteenth century that the extension of girls' education by the state and the influence of new theories of female psychology began to prompt the development of the idea of feminine adolescence.⁵

Recent research, however, has uncovered the growth of girls' schooling from much earlier in the century. In the years before 1850, demographic trends delaying age at marriage for girls and growing interest in female education saw the multiplication of school for girls.⁶ A growing proportion of bourgeois girls were attending the female establishments which were then proliferating and were doing so for increasingly long periods.⁷ By the 1860s, these schools were catering for roughly 50% of all girls who could be characterized as

originating from the middle classes. In the same period, the period of school life was gradually being extended and acquiring greater symbolic importance as a phase in a young woman's life. Thus of forty-two schoolgirls in a biographical sample of pupils attending school between 1800 and 1870, 74% had spent more than four years at school. For the most part, they arrived there at around the age of ten or eleven, and left aged about sixteen or seventeen.⁸ For an increasing number of bourgeois girls then, the storms of puberty described by Bureaud-Riofrey would have been experienced at school, and the expansion of girls' schooling was contributing to the distinction of an interim phase between childhood and marriage in the life-cycle of young middle class women.

This period of transition was also increasingly a subject of study for doctors interested in ideas of sexual difference. Since the late eighteenth century, multiple scientific treatises had sought to underline the physiological differences between men and women.⁹ More and more, the moment of puberty – which most contemporary texts suggested would normally occur between the ages of twelve to sixteen – was identified as a key point in the process of differentiation between the sexes, one which established the essential reproductive destiny of women and the force and energy of men.¹⁰ Bureaud-Riofrey's manual formed part of an expanding body of popular medical literature proliferating from around the 1820s which sought to disseminate scientific and medical theories about women's bodies to a wider public and to develop specialized strategies for the care of menstruating young women during this time of storms.¹¹

Together, the extension of school life for girls and the new sexual science and focus on menstruation contributed to the articulation of conceptions of female puberty that suggested it comprised more than simply physiological development, and which defined it as an extended transitional phase with particular social and psychological consequences. By the 1830s and 1840s in France, the idea that girls between the ages of about twelve and nineteen were undergoing a phase of transition with distinctive characteristics was commonplace.¹² As Gale notes, from the 1850s, the exploration of female adolescence would become a key theme of French fiction.¹³

The scientific texts which, in England as in France, sought to define puberty and menstruation and women's health more generally in this period and later in the century have been the subject of important studies dating back to the 1970s.¹⁴ More recently,

focusing on the literature published in mid-nineteenth-century England, Strange has demonstrated the extent to which the development of a medical language of menstruation drew on, and was rooted in, wider cultural beliefs about women as 'other'.¹⁵ Examining the texts produced on the other side of the Channel at the end of the century, Le Naour emphasises the contradictory character of the texts proliferating in that period, but also a consensus around the idea of puberty, and then each menstrual period, as phases of particular fragility for young women and girls.¹⁶

The relationship between the growing body of scientific literature attending to puberty and the management of girls at school has, however, yet to be explored. This article examines the ways in which the medical authorities characterized female puberty in the first part of the century, before looking at doctors' responses to the expansion of girls schooling, and the way the medical literature affected practices in schools. The final section uncovers some of the ways in which contemporary medical discourses and the strategies adopted in schools influenced the management of girls' experiences of puberty through a case-study of the adolescent years of Solange Dudevant (1828-1899).

The analysis draws on a study of thirty-six medical texts on women's physiology and health - ranging from Roussel's *Système Physique et moral de la femme*, first published in 1775 but re-edited seven times between 1800 and 1869 and widely cited, to works of popularisation like Dr Bureau-Riofrey's *Education physique* cited above, which was published both in French and in an English translation and widely reviewed.¹⁷ School inspection reports, prospectuses and the rulings issued for the administration of girls schools have been used to suggest some of the ways in which the medical discourse influenced daily life in girls' schools. It is more difficult to uncover the ways in which young women were affected by these ideas. Examining the regulations which framed their lives provides some insight, but more direct evidence is rare: even within the supposed privacy of their diaries, girls commented little on the physical transformations they underwent.¹⁸ The life of Dudevant, whose life was well-documented in her mother George Sand's prolific correspondence, provides a glimpse of the ways in which contemporary medical theories influenced the management of female puberty and menstruation.¹⁹

What these different sources underline is that the evolving conception of puberty as a 'time of storms' contributed to the emergence - long before the publication of G. Stanley

Hall's *Adolescence* in 1904 - of the notion that girls underwent a phase of transition that involved moral or psychological, as well as physiological development, and that this might have a significant impact on the lives of young women. At the same time, the sources point to the importance of the idea of regularity in the management of female bodies, a theme which echoed ideas current in contemporary Catholic thought, but which also seems to have met with some resistance, at least on the part of Solange Dudevant and her mother. Such resistance suggests limits to the influence of the medical and pedagogical efforts to define and contain female puberty.

Definitions of female puberty

The definitions given in contemporary dictionaries give a good indication of the shifts in conceptions of puberty from the late eighteenth to the late nineteenth-century. In the 1762 edition of the *Dictionnaire de l'Académie Française*, puberty was simply defined as a term of jurisprudence indicating the age at which it was permitted to marry (age fourteen for boys, age twelve for girls). By 1835, the legal definition had been superseded by one emphasizing the biology of reproduction: 'the state of boys and girls who are nubile' which implied sexual maturity and capacity for marriage. It was also defined as a phase, rather than an event – '*l'époque de la puberté* (era of puberty). Significantly, the legal age of marriage had risen to eighteen for boys and fifteen for girls, suggesting the ways in which demographic and legal changes were giving rise to this new *époque*. By 1872, Littré's *Dictionnaire de la Langue Française* was devoting much more space to the subject of puberty, defined primarily as 'the age at which individuals are able to reproduce' but now distinguished this from nubility: puberty was defined as the period *preceding* nubility, 'that is the period before the body is sufficiently developed for marriage' and referred to as 'the springtime of nature'. Over the course of a century, the definition of puberty had shifted from one simply indicating the legal age of marriage to one which was marked by the onset of fertility but was not restricted to it, and a phase which had characteristics beyond the physiological.²⁰

The growing significance of this phase of development in contemporary understandings of the body and mind is evident in the texts produced by doctors and

physiologists over the first half of the century. In the medical texts, the increasingly gendered definition of puberty accentuated its importance. Thus, in 1804, Jean Fournet presented a thesis setting out a definition of adolescence as a fairly extended phase involving physical growth and the changes of puberty, which was not particularly differentiated by gender.²¹ However, when thinking about the effect of this phase of development, Fournet conceived it very much in terms of contemporary conceptions of masculinity and femininity, using language that highlighted the sexed character of the adult body. Women's bodies, he argued, would become more rounded and more graceful, and would henceforth be devoted to the reproduction of the species. For men, on the other hand, this 'great and difficult process of nature' (that is the process of puberty) would endow their bodies with 'strength and majesty'.²² By the 1830s, when Bureaud-Riofrey was writing, the emphasis on the reproductive focus of the female body was more pronounced. For him, once she had gone through puberty, a girl's body was 'entirely devoted to the beautiful and sublime function of motherhood'.²³ The 'sublime function' recurs again in Dr Beluino's 1851 text, *La Femme, Physiologie, Histoire Morale*, in relation to puberty. For him, puberty was the period 'which opens her horizons and prepares her physically for the sublime functions for which she has been created'.²⁴ To an increasing extent, puberty was articulated in gendered terms, with a growing emphasis on the girl's dawning understanding of her biological and social destiny.

A parallel feature of the discussion of puberty in the medical texts was the way in which they articulated an ever-more sexualized conception of the young woman's body. Thus for Fournet, puberty would lead to the perfection of the female body as 'the whole becomes more rounded, the contours are softened, the features refined and the complexion becomes more brilliant'.²⁵ Later, in the 1830s, Dupont de l'Ain's study of the ages of life characterised puberty as the period when 'the mammaries develop, taking on new charms'.²⁶ In a treatise published by Adam Raciborski in 1868, he suggested that the most obvious change to a girl's body during puberty was to the hips, which would contribute to 'forming that agreeable downward slope which is called 'la chute des reins' [the small of the back] and which art continually seeks to imitate'.²⁷ In the medical texts, a girl's transition to adulthood involved the configuration of the female body as an object of sexual attraction, evoked with reference to eroticised conceptions of femininity.

These gendered and sexualised understandings of female puberty served to heighten a sense of this period of transition as radical and dramatic. In six of texts in the sample, this was conveyed using the language of revolution. For example, in a widely read text of the 1830s, Dr Guyetant had suggested that girls must be fortified against 'the revolution of puberty'.²⁸ Similarly, for Dr Beluino, it was 'the era when nature operates a complete and speedy revolution which transforms the child into a young woman'.²⁹ Others, like Bureaud-Riofrey, preferred the more poetic idea of puberty as the 'temps des orages' (used in five of the texts and recurring frequently in contemporary fictional accounts of puberty). The notion of puberty as a time of 'crisis' was also common. Thus, Dr Fonssagrives' treatise on *L'Education Physique des Jeunes Filles* (1869) firmly asserted that 'puberty... is a crisis that medical men must supervise'.³⁰ As is most evident from Fonssagrives' statement, increasing the emphasis on the stormy and dramatic nature of the changes girls underwent during puberty served to accentuate the need for medical supervision and care, reinforcing the claims to professional expertise of a growing body of doctors and specialists.³¹

The growing importance attached to puberty, the sexualisation of the young female body, and the sense of puberty as a period of radical change, emphasised the need for careful management. One particular focus of concern was the question of timing, something which was considered very carefully in the medical literature, with almost all authors asserting their expertise by making some pronouncement as to the 'normal' age at which puberty should begin or the menses appear, and making claims as to the influence of climate and other environmental factors.³² Significantly, timing was also important in identifying possible problems with a young girls' puberty. Many texts worried about the dangers of precocious puberty, which was frequently associated with exposure to dangerous influences or relationships. For Durand, writing in 1816, precocious puberty might be brought on by 'inappropriate familiarity, frequent touching, seeing indecent paintings, attending the theatre, voluptuous books and over-warm beds'.³³ In the 1830s Dupont de l'Ain's *Guide Sanitaire* suggested that puberty would be earlier, and consequently more dangerous, for girls living in towns, with all the dangerous stimulation that urban life involved.³⁴ Raciborski, the most influential theorist of menstruation from the 1840s, also considered the dangerous stimulations of the city and claimed that early puberty might be brought on by excessive contact between the sexes in urban parks or by

music which would over-stimulate the senses.³⁵ Like his successors, Durand also identified a whole range of female disorders arising from early puberty and the mistimed development of the organs of reproduction: these included, but were not restricted to, head aches, catalepsy, mania, convulsions, palpitations, sickness, hypochondria, nightmares, and sleep-walking.³⁶ Such lists were common, and as the century progressed, were more often associated with the psychological changes undergone during puberty, rather than being perceived as resulting from the development of the reproductive organs. Accordingly, the disorders associated with precocious puberty were increasingly identified with the bundle of 'nervous disorders' which later would come under the label of hysteria.³⁷

However, late puberty was also considered dangerous. For example, according to Dupont de L'Ain, late puberty and the suppression of menstruation could bring on chlorosis – the early nineteenth-century female malady par excellence (and which modern analyses suggest was a kind of socially-heightened form of anaemia).³⁸ The symptoms included paleness, sullen eyes, whitish lips, dry skin, feelings of sadness, loss of appetite, moroseness and desire for solitude. In rare cases, it could lead to inertia and death. As with precocious puberty, the late arrival of the menses was attributed to a wide range of social, physiological and psychological factors, including over-exertion of the mental faculties, a sedentary life-style, or an excessively abstemious diet. The solutions included fresh air, gentle exercise, healthy food, but also in some cases – bleeding, iron treatments, or the placing of leaches on the upper thighs. For some doctors, it was only marriage which would finally resolve the problem of chlorosis.³⁹

According to the scientific literature, then, the timing of the revolution of puberty was thus critical. Much medical attention was devoted to determining what was the right time for the menses to begin. Once that had happened, the next concern was 'la régularité'. In the words of Dr Guyetant, writing in the 1830s but whose ideas were echoed in many later texts: young women needed particular care during their pubescent years, especially until 'a function whose regularity is the best guarantee of a woman's health' – menstruation – was fully established. This concern with regularity, and the notion that it was an essential component of female health, was widespread.⁴⁰ Indeed, the importance of regularity was enshrined in the very language of menstruation, where the most common term for 'the periodical haemorrhage' was *les règles*.⁴¹ Accordingly doctors particularly enjoined mothers

to take note of the rhythm and flow of their daughter's periods, with Fonssagrives going so far as to include a table for recording menstruation in the pre-printed notebooks he produced for mothers to use in supervising the health of their children (significantly although nineteen of the twenty-one categories for the observation of male and female children were identical, in the section where mothers were enjoined to record periods and 'puberty' for their daughters, they were asked to note 'intellectual activity' and 'physical activity for their sons').⁴² It was only when puberty had been successfully weathered, and a girl's periods had become regular that the danger was passed.

If, on the other hand, a girls' periods were irregular, it was almost always attributed to over-excitement, and always considered dangerous. Thus in the 1850s Dr Reinwillier noted that 'the young woman who was affected by this indisposition, almost always succumbed to reading erotica, or fixed her desires on a real or imaginary being'.⁴³ As with many of the problems associated with early or late puberty, the danger of irregularity was sexual as much as physiological – in this case an excess of sexual imagination, and a spirit of insurrection. In this, the scientific literature reflected – perhaps despite the anti-clerical leanings of many medical men – the influence of a Catholic ideal of temporal regularity.⁴⁴ As Odile Arnold has suggested, in the convent, complete submission to the schedule and rhythms of life specified by the founders was considered the best route to spiritual equilibrium.⁴⁵ Regularity was not only a guarantee of physical health, it was a sign of moral virtue. In the medical discourse, then, time and rhythm were central to conceptions of puberty. Increasingly, puberty was seen as a distinct phase in a young woman's life, a time of storms and revolutions, which might come early or late, but which must at all costs become regular.

Puberty and Health at School

Given the sense of puberty as a time of crisis when young women were especially vulnerable, it is perhaps not surprising that the medical experts expressed particular concerns about the dangers of school life for young women. In doing so, doctors and medical experts were reinforcing and extending well-established critiques of convent

schooling and female education, against which schoolmistresses, lay and religious had long had to defend themselves. For many conservative commentators, schools and schoolmistresses could never substitute for the care of a mother.⁴⁶ And yet, it is clear that, these concerns aside, doctors and parents were right to be worried about the impact of school life on young girls. As Lougee's work on death at school reveals, despite the emphasis placed on 'good air' and provisions for medical care in eighteenth-century girls' schools, female pupils had higher than average mortality rates for girls of their class. The process of contagion was not yet properly understood and contemporary sanitation was simply inadequate.⁴⁷ Unfortunately, comparable figures for nineteenth-century establishments are not readily available, but what is clear is that throughout the first part of the century, doctors expressed growing anxiety about the impact of schooling on the physiology, health, and emotional development of the pubescent girl, and that to a certain extent at least, their concerns were reflected in the measures adopted by those regulating and heading schools for girls.

The anxieties expressed by medical men about schooling for girls were multiple and varied, but two themes, both relating to contemporary understandings of puberty, came up with particular frequency and seem to have generated particular responses. The first was a concern about the delayed puberty of girls at school, and all the dangers that that entailed. The second, rather in contradiction to this, was an anxiety about the over-stimulating features of school education, a theme which in most medical texts was related to precocious puberty and irregular menstruation.

As noted above, contemporary medical treatises expressed considerable concern about the timing of puberty and for many experts it was self-evident that girls at school would experience delayed puberty. For instance in the 1840s, Raciborski, who emphasized the influence of environmental factors – climate, air, diet - on puberty, argued that schoolgirls would inevitably suffer from late onset of the menses because of the poor food and the bad air that characterized Parisian pensionnats.⁴⁸ Lougee's research suggests that Raciborski's assessment of the sanitary conditions of French schools may well have been correct, and it is also clear from recent studies that nutrition has a significant impact on age at first menstruation, so that he may have been right that girls at school were more likely to reach puberty later.⁴⁹ Other sources also confirm that the schoolgirl diet may have been

limited.⁵⁰ Piccioni, whose *Education Physique* was published in 1851, argued that this was the result of self-interest on the part of schoolmistresses – it was cheaper to feed girls thin soups and gruels than the more sustaining food which would have favoured the earlier onset of puberty.⁵¹ The accusation of mercenary attitudes may have been unfair, reflecting the generally critical view of women teachers, indeed some of those providing a restricted menu might have been seeking to emulate the austerity of the diet in Catholic convents or following the recommendations of much of the medical literature which warned against giving girls too rich a diet during puberty.⁵² Thus Bureaud-Riofrey advised that women should always confine themselves to dairy products, fruit and vegetables and avoid all but the 'lighter meats'.⁵³ Whatever the motivation, it is possible that, due to a nutritional deficit, girls at school in early nineteenth-century France experienced later than average puberty.

Another frequently recurring charge on the part of the medical establishment was that schoolgirls would experience delayed puberty because of the over-taxing of their mental faculties and its corollary, the over-sedentary life. Parisian doctor, Hector Chomet summed up the perceived dangers effectively in 1851: 'by the immobility and the concentration that over-long and excessively serious studies require, by the rigorous application of the intelligence, we wear out the brains of these young children and stand in the way of their physical development... adding yet another reason to the already too numerous reasons why women may suffer from the displacement of the womb'.⁵⁴ His conclusions echo those of Dr B, who argued in 1848 that convent education 'during which girls are deprived of the ability to exercise their lower limbs, delays the moment of the first evacuation'.⁵⁵ Such concerns clearly reinforced long-standing anxieties, dating back to the seventeenth century about the dangers of intellectual education for women. They also prefigured later debates about the physical effects of over-education on young men, and then on young women at the point at which higher education for women was being extended.⁵⁶ Early nineteenth-century doctors and scientists were responding to, as well as reinforcing, existing social and religious arguments about the dangers of removing girls from the home and about female intellectual activity.⁵⁷ However, their focus on the impact of school-life on the pubescent female body was new and prompted the proliferation of treatises on physical education for girls from about the 1820s. With titles like *Hygiène physiologique de la femme; ou de la femme considérée dans son système physique et moral*,

sous le rapport de son éducation et des soins que réclame sa santé à toutes les époques de sa vie published by Dr Lachaise in 1825 or *Gymnastique appliquée à l'éducation physique des jeunes filles* published by Dr Bienaimé in 1844, a growing number of medical experts were devising systems of physical education for girls which were specifically intended for the management of female puberty at school.⁵⁸

Some doctors paradoxically also held schools responsible also for the other chief danger of adolescence – precocious puberty. In the enervating and crowded environs of the city, and encouraged to read bad books by their fellow pupils, the nervous system would be over-stimulated and puberty would come on too early.⁵⁹ The dangers of girls' reading too widely had long been a subject for moralists, worried about young women being diverted from their domestic responsibilities, or becoming 'savantes'. In the nineteenth century, however, the scientific and medical discourses on female reading heightened long-standing anxieties about girls and books.⁶⁰ Thus Dr Bureaud-Riofrey warned of the dangers of books which exalted certain passions, just at the point at which a girls' brain required calm.⁶¹ Schoolgirls' reading was particularly suspect. For many of the medical authors, like Dr Lachaise, reading lascivious books was the inevitable consequence of school education and would be both a cause and a consequence of precocious puberty.⁶² Relatedly, in the eyes of many medical experts working with a sexualized conception of female puberty, the shared sociability and intimacy of school-life, had dangerous consequences. Although rarely expressly named, masturbation and sexual activities between pupils were evoked in dark tones. For Lachaise, writing in 1826, what he termed 'habitudes funestes' were almost inevitable in the context of the *pension*. He argued that, however careful and worthy a schoolmistress was, she could never entirely avoid the danger: 'a dangerous intimacy, but one which one could never openly name, establishes itself between a few girls of the same age, they confide their most secret thoughts to one another'. Under the circumstances, and with no physical exertion to distract them, their imaginations would be over-stimulated, and 'over intimate friendships would be formed and sinister habits would quickly be established'.⁶³ Dr Piccioni similarly warned of the dangers of schooling in promoting habits that would compromise a girls' health for ever, and seven other medical texts in the sample spoke darkly about the dangers of schoolgirl intimacy and the closeness of contacts

between pupils.⁶⁴ Such habits would bring on precocious puberty or contribute to the dangerous deregulation of the menstrual function.

For Raciborski, the solution to the dangers of school life for pubescent girls was clear: if girls must be sent to school, then doctors must supervise them. In 1844, he wrote that 'if doctors were charged with the inspection of hygiene in girls schools, by looking over their domestic arrangements, and the provision for ensuring the health of each and every pupil, they would be able to provoke important reforms and to snatch a number of victims away from inevitable death'.⁶⁵ Such arguments were clearly self-interested, and again reflect the extent to which the medicalization of female puberty formed part of the process of constructing medical expertise and professional authority in this period. There is no evidence that any such system of medical inspection was established in the period before 1870. There are suggestions, however, that many of the ideas articulated in the medical texts did filter through to schoolmistresses and the authorities regulating them.

First, the permeation of medical themes and medical discourse in nineteenth-century French culture and society would suggest that some of the contemporary scientific theories on puberty would have been known to ordinary schoolmistresses.⁶⁶ Secondly, and more concretely, there are hints that at least some teachers could have been consulting these and similar medical texts. At the Normal School of Dohem in the Pas de Calais, one of the books listed among new purchases for the library in 1851 was Dr Guyetant's *Guide Médical des curés, des dames de charité, des gardes-malades, des chefs d'établissement, des maîtres et maitresses de pension* (1838).⁶⁷ Significantly, moreover, the second edition of this text, published in 1842, came out under a changed sub-title, which put the *Maitres and Maitresses de Pensions* above the other categories suggesting a ready audience amongst teachers for such ideas. Setting out the dominant theories of menstruation, Guyetant's text recommended that teachers watch over their pupils very closely during puberty, seeking above all the establishment of regular periods from an appropriate age.⁶⁸ It provided advice on preventative measures and how to treat chlorosis that closely echoed the recommendations of the most specialised medical treatises, although it is significant that this purchase was being made for the Normal School ten years after the first publication of Guyetant's guide, indicating the relatively slow rate of transmission of medical knowledge.

General concerns about the health of girls at school were being taken on board by the administrative authorities in Paris and elsewhere, and by schoolmistresses themselves. From the 1810s, prefects in the Seine and other departments were setting up mechanisms for the regulation and inspection of girls schools which included provisions intended to promote hygiene.⁶⁹ The health of girls at school was of central concern for the administrative authorities. This reflected in part the growing influence of hygienic theories, but may also have reflected more particular concerns about female puberty.⁷⁰ Thus, from 1810 school inspectors in Paris were reporting on whether or not Parisian schools had a separate infirmary, and whether there were particular doctors associated with the school.⁷¹ Many establishments clearly did have these facilities. In the First arrondissement in 1841, of 14 schools, eleven had separate infirmaries, and – while he complained that there was no specialised system of medical inspection for girls' schools – Raciborski acknowledged that many *pensions* did have doctors attached to them.⁷²

From the 1820s, the influence of discourses of hygiene and physical education was also apparent. Parisian inspectors were required to provide information on hygiene from 1845, and increasingly, in their prospectuses, schools advertised their washing facilities, and clean air. At Mme Bazin's school, the school ruling, sent out to prospective parents in the 1840s specified that girls would go immediately to the 'lavoir' on rising, and then 'brush their teeth, brush their nails, comb their hair twice a week and take footbaths on Saturdays'.⁷³ At the same time, as Dr Bienaimé commented in his 1844 treatise on physical education, 'the value of gymnastics is increasingly recognised. One hardly comes across any school which does not have the relevant equipment'.⁷⁴ Thus, of 77 schools for girls inspected in the period 1810-1860 in Paris, 28% declared themselves as offering instruction in gymnastics or callisthenics, the proportion rising among the *pensions* established after 1830. From the 1850s, the Loi Falloux specified that women seeking the diploma required to establish a school must have some knowledge of gymnastics.⁷⁵

Further evidence of the influence of medical texts on school practice are the ways in which concerns were expressed about reading, and the anxiety perennially expressed about 'lits pressés', (beds being too close together). Thus, departmental regulations frequently stipulated that the books on offer in girls' schools were to be carefully scrutinised, with some establishments coming in for criticism for the inappropriate character of the reading

material they offered to their pupils. In 1846, for example, the inspectors reported that in too many Parisian schools, the books used for literary studies were poorly chosen and as a result 'the imagination and sensibility of the pupils is imprudently heightened', a view which carries echoes of concerns about the particular liveliness of the female imagination and the medical discourse emphasising the psychological and physiological dangers of reading for pubescent girls.⁷⁶ Inspectors worried even more about the impact of 'lits pressés'. Especially in the early part of the century, having beds close to one another or even sharing beds seems to have been relatively common. As the sexualised ideas of female puberty being developed by doctors gained influence, the idea that this was inappropriate seems to come up increasingly often in the administrative records, and any school where the beds were too close was criticised. In 1815, the Parisian inspectors of the 1st arrondissement complained about four of the nine schools they had visited having 'lits pressés', and from the 1820s, Parisian inspectors were particularly enjoined to watch out for beds being too close together.⁷⁷ As time went on, the regulations became more precise about what was appropriate: in 1850, a national ruling on girls' schools established by the Minister of Public Instruction stipulated that there must be at least 1m of space between each bed. This was partly to ensure the sufficient circulation of air (15m³ of air were required for each pupil), but also reflected increasing anxieties about proximity and intimacy.⁷⁸ Significantly, there was a clear correlation in inspection reports between schools where the beds were too close together, and schools where the teachers or atmosphere were otherwise considered morally dubious.

Such attitudes do seem to suggest at least a correlation between what was happening in schools and the sexualised conception of puberty being articulated in the medical literature. Scientific concerns about the dangers of inactivity and a sedentary life for pubescent girls were not, it seems, falling on deaf ears. The evidence from inspection reports implies that medical discourses highlighting puberty as a time of revolutions, when girls needed to be carefully watched over were having an impact on the practices of school life. Furthermore, while there is no direct evidence of teachers recording the regularity of their pupils' menstrual periods, in the way that Fonssagrives hoped mothers would, one could perhaps speculate that the medical obsession with regularity dovetailed neatly with the *règlements* implemented in most schools and which the administrative authorities

required. These elaborate rulings, inherited from the convent schools of the *Ancien Régime*, set out in great detail the daily regimen of schools and their pupils.⁷⁹ Perhaps such regimes represent one way in which schoolmistresses sought to respond to the importance placed on regularity in the medical literature.

The Storms of Puberty: Solange Dudevant

In the case of Solange Dudevant, at least, it is clear that the regularity and regime provided by the boarding-school was a deciding factor in what motivated George Sand to send her daughter to school. The decision was made shortly after Solange's first period, which Sand quickly defined as precocious. Examining the case of Solange offers a rare insight into the ways in which a bourgeois schoolgirl's puberty might have been understood, managed, and experienced in the early nineteenth century.

As suggested above a growing number of girls were spending increasingly long periods at school. To many of these pupils, the time they spent at school was acquiring a particular resonance, and was associated with growth, development and growing autonomy. For Adèle Riobé, writing in her diary a few years after leaving the school in le Mans where she had been a pupil from 1850 to 1857, it was a special time, which she would remember for ever: 'Why are these memories of school life so powerful as to fill me with deep emotion?' she asked her diary. 'It is because they remind me of my first steps in life, my first impressions'⁸⁰. Her school life corresponded to a moment of self-discovery. Statements like Adèle's are relatively common in the diaries and memoirs of French schoolgirls in this period. Moreover, many pupils seem to have experienced this moment of transition physically. For many French girls, the beginning of school time was marked by the casting off of their own clothes and the assumption of the uniform.⁸¹ Arriving at Saint Denis in the 1820s, Marie Capelle vividly remembered having to give up her pretty light dresses of

the day before and take on the lugubrious black uniform of school. Juliette Adam, on going to school in Picardy in 1839 was similarly affected by the symbolic assumption of the school's uniform when told to put on the 'terrible black apron'.⁸² As they looked back, these women remembered the important moment of arriving at school, and the beginning of this significant phase in their lives as a bodily experience.

It is more difficult to detect, however, to detect how girls experienced the physiological transformations they would go through whilst at school (though it may be significant that the language of 'revolutions' and 'storms' is notably absent from most memoirs of school life, which instead emphasise either the new found autonomy of life at school, or its monotony).⁸³ Particularly for those attending convent schools, as Arnold has shown, the body was to be dismissed, unobserved, if not mortified. Girls were forbidden to bathe naked and reprimanded for any sign of vanity or even interest in their own appearance beyond the minimum needed for modesty and tidiness.⁸⁴ Even beyond the convent, young women remained silent about their bodies. Lejeune finds that even in their most private writing, young French women did not discuss their bodies other than to comment on the ways in which their visible limbs might or might not conform to contemporary ideas of beauty.⁸⁵ In this context, the case of Solange Dudevant, whose puberty is relatively well-documented, is particularly valuable.

Solange Dudevant was born in 1828, the second – and less favoured child - of George Sand, who not long after her daughter's birth formally separated from her husband Casimir Dudevant.⁸⁶ George Sand's letters are full of references of the difficulties of looking after Solange, with whom she had a generally difficult relationship, whilst trying to keep up with a heavy burden of writing commitments but things came to a head in 1840 when Solange was twelve, and they were spending the summer at Sand's country property of Nohant.⁸⁷ Solange, she wrote in letters to her many friends, was capricious and difficult, and not keeping up with her studies. Then in August, Sand wrote to her doctor Paul Gaubert as follows :

Dear doctor, could you come to visit me tomorrow morning, or in the evening. My daughter has just undergone a small, very natural, crisis, but one which I fear may be precocious, although she is in good health. I would like you to see her, because it may be that there are precautions to take in caring for her.⁸⁸

The same day, she discussed the situation in more detail in a letter to another doctor, this time also a friend:

I think she is going through a physical crisis which is influencing her morale.

Yesterday I noticed that she had become a woman. It worries me a little, since she is only twelve and I fear that this precious puberty might impede her growth.

She concluded the letter by asking whether her correspondent thought she should prevent Solange from riding her horse, in case that activity 'accelerates that particular function', and worried that Solange's daily visits to the riding school had brought on the menses.⁸⁹ Sand's letters suggest considerable familiarity with contemporary theories of puberty. Her letters refer to the changes as a time of 'crisis' and also mention the concept of precocious puberty, and raise the issue of over-stimulation and over-exertion. Unfortunately we do not know exactly what Dr Gaubert prescribed, but it would seem that – in conformity with much of the contemporary medical advice – Solange was not banned from riding or physical activities because her mother's letters continued to record excursions on horseback.

A few months after this 'crisis', Solange was still being difficult in the eyes of her mother, and after 'another tempest of ferocity', Sand concluded that the only solution was the regularity and system of boarding school.⁹⁰ Thus in October 1840, Solange entered the school run by Mme Hereau in Paris. It had clearly been carefully chosen with Solange's physical needs in mind. Inspection reports reveal that there was a gymnasium, an infirmary, and that every floor had basins for regular washing.⁹¹ Moreover, health was a key concern at the school - in her time there, as Sand commented rather sourly, the only prize Solange won was the prize for health.⁹² In Sand's estimation, the school was exactly what her daughter needed. Thus, shortly after Solange arrived, she wrote to her son Maurice that his sister was doing very well at school, and was 'conducting herself like a reasonable person' whilst thoroughly enjoying gymnastics and 'climbing up ropes like a cabin-boy'.⁹³

Unfortunately it would seem that Sand's optimism was premature, because in late December 1840, Solange was experiencing palpitations, that Sand seems to have connected with another episode of 'ferocity'. In she wrote again to her doctor telling him that Mme Héreau had reported that Solange was 'continually languishing without being exactly unwell' and asked 'could this extended state of discomfort lead to a more serious deregulation'.⁹⁴ Once more, we have a sense of Sand interpreting Solange's symptom

through the lens of the contemporary medical discourses of puberty.

Again, it's not clear what the doctor prescribed, but it would seem that Sand had concluded that more regularity and more regime was needed, because in May 1841, Solange was moved to another school, run by Ferdinand Bascans and his wife, with instructions that she needed a particularly firm regime.⁹⁵ As before, the school was well furnished with provisions for her daughter's health – a large garden, a gymnasium, an infirmary, basins on every floor, spacious and well-heated dormitories.⁹⁶ Once Solange was installed, despite multiple pleas from her daughter – which included many references to her failing health, an interesting example of the way girls might seek to mobilise the discourse of puberty to their own advantage – Sand refused to allow Solange to come home for the summer in 1841.⁹⁷ As Mme Bascans agreed – what she needed above all was regularity and regular occupation.⁹⁸

At the end of 1841, however, it was clear that Solange was again suffering, and again Sand connected her daughter's ailments with the storms of puberty: In February 1842, Sand wrote to a friend that Solange was ill, though sleeping and eating well. She had been diagnosed with a kind of enlargement of the heart, but – Sand emphasised 'It doesn't worry me, because with girls the cause of this is well known and nature will restore things to order. However, she does need care and attention so that her system does not deteriorate during these crises'.⁹⁹ From this and later letters, we learn that the treatments Solange had been subject to at school included being bled, baths, taking digitalis, keeping her feet warm, abstaining from wine and forcing her to exercise during recreation time. Clearly, the Bascans were as well-versed as Sand in current thinking on the management of female puberty and disorders arising from it, since these treatments correspond closely to what Dr Guyetant and other recommended for chlorosis.¹⁰⁰ For Sand and for Mme Bascans, Solange was clearly going through the crisis of puberty and suffering chlorosis as a result of its early onset.

Solange remained at the Bascans' school for another two years, though her schooling was interrupted by two quite extended stays at home which Sand described in later letters as a response to her chlorosis.¹⁰¹ Finally, in May 1844, she left the school for good, however the indications that can be gleaned from Sand's letters suggest that the *régularité* of school life had not, after all, cured Solange of the ills of puberty. In the summer

of 1846, Solange seems to have experienced her worst bout of chlorosis, which Sand again connected directly to the irregularity of her menstrual period. The first mention of it came when Sand wrote to warn a female friend that she and Solange would not be able to go as planned to Bourges. Solange was expecting '*quelquechose*' [literally 'something'] which lays her low for several days' and would make her difficult on the journey. They would then be further delayed because 'in five or six days, the same will happen to me'.¹⁰² Clearly Sand took careful note of both her own and her daughter's menstrual periods and modified her behaviour accordingly. However, at the end of July, Solange was still unwell and by now, Sand had concluded that it might be a return of the chlorosis she had had before. They consulted Dr Papet, who assured her it was not.¹⁰³ However, on this occasion, Sand seemed at a loss. On the 21st August 1846, when Solange had been ill for six weeks, she wrote to her friend Charles Poncy that:

We don't know what to do, and we are still here [at Nohant] waiting for this disorder which seemed to appear for no obvious reason, to disappear in the same way. The very gentle remedies which we have tried have little or no effect. I don't dare try anything more energetic.¹⁰⁴

Throughout her life, Sand frequently consulted doctors on her own account (one biographer notes that she was 'somewhat hypochondriachal', and counted several doctors amongst her most intimate and frequent correspondents.¹⁰⁵ As a young woman, she had accompanied her tutor Deschartres, who had some medical training, on visits to support the local poor, and continued to provide medical services to those on her estate as an adult, sometimes paying for visits from Doctors based in nearby towns.¹⁰⁶ Moreover, as Goldstein has noted, in the literary circles frequented by Sand in this period, medical texts were widely read. Flaubert, one of Sand's chief correspondents in the 1840s, frequently consulted the *Dictionnaire des Sciences Médicales* and referred to it in letters to her discussing the relationship between gender and hysteria.¹⁰⁷ Given all this, and the wider dissemination of and respect for new medical theories more generally in French culture, Sand's trust in contemporary medicine, and the advice of professional doctors in the management of Solange's puberty was not unexpected.

By 1846, however, six years after Solange's first period, Sand's faith in professional medicine seems to have been wavering. She continued her letter to Charles Poncy by

contentending that 'Medicine is empirical, and destroys the health of many more than natural illnesses'.¹⁰⁸ Instead, as Sand related in letters to other friends, they tried 'an old wives remedy' along with lots of activity in the open air.¹⁰⁹ Unfortunately, we do not know precisely what this 'remedy' consisted of, that a few years later, however, we know that Sand obtained for herself - and recommended to Solange - a powder made of dried plants, mixed by a local wise woman who was being pursued by the police for practicing medicine without authorisation.¹¹⁰ Whether or not the remedy Solange took in 1846 was of the same ilk, Sand attributed to it the expulsion 'of a mass of black bile which had resisted official medical remedies', so it seems to have generated a kind of purging, and characterised this as reflecting 'the great art of the witch and happening as if by magic'.¹¹¹ As a result of this treatment, and fresh air and activity – 'the only regime in which I fully believe' – she wrote exultantly to Charles Poncy on September 23rd 1846, 'she is cured'.¹¹² Significantly, writing to a female friend – Charlotte Marliani - a few days later, she confided that Solange was now 'really' cured, citing the fact that 'a certain era has passed without incident for the first time in a long while'.¹¹³ Consequently, Sand went on, she could now start to think again about arranging a marriage for her daughter. Sadly, Solange's troubles would recur in 1847 when she wrote bitterly to Chopin that 'As to my daughter, her illness is no worse than that of last year, but my zeal, nor my care, nor my commands, nor my prayers, have been enough to convince her not to suppress her periods, or to stop conducting herself like someone who likes to make themselves ill'.¹¹⁴ As this suggests, Sand's management of Solange's puberty and health, and Solange's response to it, were integral to the wider dramas of their relationship: menstruation, health, and professional and popular treatments were elements deployed in the negotiation of power and agency between mother and daughter in ways which should be the subject of further investigation. What the Solange Dudevant case as discussed here does reveal, however, is the ways in which Sand drew on both contemporary scientific and popular knowledge in her understanding of female puberty and menstruation. The confiding tone and details of her letters on the subject to female friends suggest that she also retained a sense of a particular feminine knowledge and experience of these conditions.

Sand, as several scholars have noted, was particularly intrigued by and interested in childhood and adolescence, pioneering fictional explorations of female adolescence in *La*

Petite Fadette, written in 1848, not long after Solange had married and left home.¹¹⁵ The novel's core is the story of the transformation of wild unsupervised tomboy Fadette into the model of respectable, regulated, adult femininity.¹¹⁶ However Sand's ambivalence about this transformation is apparent and despite the apparent conformism of the conclusion, the action of the novel is driven by Fadette, not by the passive male characters.¹¹⁷ Sand was also – as frequently noted – an observant chronicler and consumer of local peasant and folk culture.¹¹⁸ Significantly, Fadette's grandmother is the local wise-woman, and Fadette herself is considered to have particular knowledge of folk-remedies and powers of divination. The process of transformation to adult femininity also signals Fadette's move away from this folk world to that of bourgeois medicine. Yet here again, Sand's position is ambivalent. The authorial voice insists that the use of plants in healing is not magic, but based on real knowledge, and attributes Fadette's powers to her observant mind, rather than to sorcery.¹¹⁹ Given Sand's recent experiences in managing Solange's puberty, it seems reasonable to assume that in *La Petite Fadette*, she was drawing on her own knowledge of popular and professional medicine and exploring the different ways of knowing and managing female adolescence. In emphasising Fadette's agency, and her skills as a healer, she may have been reflecting her own ambivalence about the response of professionalised medicine to the female body.

The case of Solange Dudevant sheds some light on the ways in which the disorders of female puberty were managed in girls' schools, and on the interaction between professional and popular medicine, and different forms of knowledge about the pubescent and menstruating female body. Sand's interest in adolescence was exceptional, as was her particular engagement with both contemporary medical theory and folk medicine. However, as other studies have shown, French society in the nineteenth century was highly medicalised and in using both professional and popular medicine, Sand's practice echoed that of many of her contemporaries.¹²⁰ Solange Dudevant's experiences, and the evidence from inspection reports and school regulations highlight how – partly in response to the proliferating scientific literature on the subject – female puberty was becoming the subject of specialised care in the first half of the nineteenth-century. This underlines the ways in which the extension of school life and the elaboration of a medical discourse of puberty contributed to constructing a notion of female puberty as a distinctive phase in a young

woman's life which required special attention. That specialised care, provided by doctors and specialists in physical education, was predicated on a medical discourse which increasingly conceptualised female puberty as a time of revolutions, a time of storms, requiring careful management. Such care was necessary because it was during puberty that the special function of the woman's body was established, a transition which also involved the young woman in a process of psychological transformation as she 'became aware of her destiny'. The principle concern of those appointing themselves to manage and supervise girls' puberty was to ensure the successful achievement of this 'revolution', and the establishment of regular periods. And yet, despite the volume and noise of the medical discourse, and the evidence from schools and the letters of George Sand that doctors like Fournet, Bureaud-Riofrey and Raciborski did have a real impact on the ways in which girls' puberty was managed, the experience of Solange Sand also provides a tantalising glimpse of an alternative understanding of puberty and menstruation. This was the half-secret world of the 'somethings', the 'old wives' and the 'witches', which perhaps resisted the 'regularity' demanded by the contemporary medical discourse.

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² A.-M. Bureaud-Riofrey (1835) *Education Physique des Jeunes Filles* (Paris: Librairie des Sciences Médicales), pp.21-2. All translations from the French are my own, except where a translator is named. I have sought to convey the meaning of the French as closely as possible, rather than to translate elegantly.

³ G. Sand (hereafter GS) to Gustave Papet, 28 Aug 1840, No.2101; GS to Paul Gaubert, 28 Aug 1840, No.2100; G. Sand, Ed. G. Lubin (1964-1995), *George Sand: correspondance* (Paris: Garnier). All references to the Sand correspondence from this edition, identified by letter number, unless otherwise indicated.

⁴ J. Gillis (1981) *Youth and History: tradition and change in European age relations, 1770 to the present* (London: Academic Press), Ch. 3; J. Modell & M. Goodman (1990) 'Historical

perspectives' in S.D. Feldman & G. R. Elliott (Eds.) *At the Threshold: the developing adolescent* (Cambridge, MA: Harvard University Press) p. 102.

⁵ A. Thiercé (1999) *Histoire de l'Adolescence* (Paris: Belin), pp. 10-16. For England, Carol Dyhouse (1981) *Girls Growing up in in Late Victorian and Edwardian England* (London: Routledge & Kegan Paul) identifies a similar pattern and chronology.

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⁷ R. Rogers (2005) *From the Salon to the Schoolroom. Educating bourgeois girls in nineteenth-century France*, (Pennsylvania: Pennsylvania State University Press Pennsylvania), pp.46-8; C. de Bellaigue (2007) *Educating Women: schooling and identity in England and France, 1800-1867* (Cambridge: Cambridge University Press) p. 29.

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¹¹ C. Plumauzille (2010) Elaborer un Savoir sur la Sexualité: le *Dictionnaire des Sciences Médicales* (1812-1822), *Clio: Femmes, Genre, Histoire*, 31, pp. 111-133; S.S. Pyenson (1985) 'Popular Science Periodicals in Paris and London: the emergence of a low scientific culture, 1820-1875' *Annals of Science*, 42, p. 555.

¹² G. Houbre (1997) *La Discipline de l'Amour* (Paris: Plon, 1997), p. 154-159.

¹³ B. Gale, *A World Apart. Female Adolescence in the French novel* (Lewisburg, Bucknell University Press, 2010); P.M. Spacks (1981) *The Adolescent Idea*, (New York: Basic Books), pp.191-227 uncovers a similar process of exploration of female adolescence in English fiction; Thiercé, *Adolescence*, pp. 10-16.

¹⁴ E. & E. Showalter (1970) Victorian Women and Menstruation, *Victorian Studies*, 14, pp. 83-89; A. Digby (1989) Women's Biological Straitjacket in S. Mendus & J. Rendall (Eds.) *Sexuality and Subordination* (London: Routledge), pp. 192-221; M. Poovey (1986) Scenes of an Indelicate Character: the medical 'treatment' of Victorian women, *Representations*, 14, pp. 137-68; Edelman, *Maladie des femmes*; J-C. Caron, *Jeune Fille, Jeune Corps*; J.-Y. Le Naour, (2001), *Du Sang et Des Femmes: histoire médicale de la menstruation à la Belle Epoque*, *Clio: Histoire. Femmes. Société*, 14, pp. 207-29; M. L. Stewart (2001) *For Health and Beauty. Physical culture for French women 1880s-1930s* (Baltimore: Johns Hopkins University Press) Ch.4; J. Arveiller (2006) Adolescence, Médecine et Psychiatrie au XIXe siècle, *L'Evolution psychiatrique*, 71, pp. 195-221;

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¹⁹ See also G. d'Heylli (1900) *La Fille de George Sand* (private publication) and B. Chovelon (1994) *George Sand et Solange* (Saint-Cyr-sur-Loire: Christian Pirot).

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²⁸ Dr Guyetant (1838) *Guide Médical des Curés, des Dames de Charité, des Gardes-Malades, des Chefs d'Etablissement, des Maîtres et Maitresses de Pension* (Paris: Gauthier Frères), p. 186.

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- ⁷⁴ Bienaimé, *Gymnastique*, p. 10.
- ⁷⁵ Figures based on inspection reports across all arrondissements for the whole period collected in AD Seine VD6.
- ⁷⁶ Rapport d'inspection sur la pension de Mme Coudier, 1838, AD Seine, VD6 158/3.
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- ⁷⁹ Bellaigue, *Educating Women*, pp. 36-7.
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- ⁹⁴ GS to Paul Gaubert, Jan 1841 [2376]
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- ⁹⁶ Plan de la pension de Mme Bascans. AD Seine, DT Supplément 13.
- ⁹⁷ Similarly Brumberg, in 'Chlorotic girls' notes how young women might use the idea of chlorosis to their advantage, p. 1472.
- ⁹⁸ Mme Bascans to GS, 21 July 1841, quoted in Chovelon, *George Sand*, p. 199.
- ⁹⁹ GS to Hippolyte Chatiron, mid Feb 1842 [2403]
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- ¹⁰² GS to Eugénie Duvernet, 20 Jul 1846 [3457]
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