

**‘The Revolution is to the human mind what the African sun is to vegetation’:  
Revolution, Heat, and the Normal School project.**

**Abstract:**

This paper focuses on a slightly earlier period in its investigation of the meanings and associations with the term ‘normal’ than Cryle and Stephens have done in their recent book. It looks at the establishment and rapid demise of the Ecole normale [Normal School] in Paris in 1794-95, founded on the same model as a School for the manufacture of arms which had operated in Spring 1794, and suggests that this model was responsible not only for some of the problems the Ecole normale experienced, setting up unachievable expectations of rapid efficacy, but also had an impact on what its name was assumed to mean. Moving between, on the one hand, an analysis of explicit (and opposing) definitions of what the term ‘normal’ meant, and an account of how the Ecole normale was set up and what it was set up to do, and, this paper agrees with Cryle and Stephens that the term was ‘formed in controversy’, and fills in the intellectual and philosophical context from which the notion of the statistical norm will emerge.

**Keywords: Ecole normale de l’an III/Normal School of 1795; French Revolution; Education; Garat; Cabanis.**

**Article:**

What Peter Cryle and Elizabeth Stephens have said in their typically modest way is that a great deal ‘remains to be done’ to establish a critical genealogy of the normal,

and that many questions are yet to be ‘addressed to [their] satisfaction.’ This is despite the existence of an important and illuminating book on this very subject, one which they themselves have written. In the article that follows, I hope to add some detail to an early yet intense episode in the wide-spread usage of the term *normal*: the establishment (and rapid demise) of the Ecole normale in the Revolutionary Paris of 1795. Our account will seek to test the view that Cryle and Stephens express here:

It was not, as it happened, the notion of the normal school that served during the early decades of the nineteenth century as a locus of complicated and contested thinking about normality, but rather that of the ‘normal state’ (or condition). That term emerged in medical discourse around 1820. (Cryle and Stephens, 2017: 25)

Of course, as those who are familiar with the history of the establishment of the Ecole normale will be aware, Cryle and Stephens are probably referring to two quite separate historical moments: the Revolutionary Ecole normale, which lasted four months, and of which there was only one, in Paris, and the Napoleonic creation of 1810 whereby two schools were simultaneously set up in Paris and Pisa, both of which still exist. This article will only consider the first of those schools, and the role the Napoleonic Ecoles normales play in this critical genealogy therefore remains to be investigated.

Before presenting a chronological overview of the establishment and demise of the school, we start with the different instances in which we find the term ‘normal’. Intriguingly, given our interest in the concept, it receives almost no attention on its own account but is instead – it seems from the sources – simply used very frequently, and as it were all of a sudden, and always in connection with ‘Ecole’. This usage is an importation from German, whose model schools, or Normalschulen, provide the name

if little else (François, 2016 : 31-49), these French schools modelling themselves explicitly on a very specific Revolutionary military model of teaching, as we shall see. Prior to this period, in French, ‘normal’ had generally been used as a synonym for the perpendicular line (Cryle and Stephens, 2017 : 25; Warman, 2010 : 203). ‘Normal’ in connection with ‘school’ is therefore a novel concept in French, as we can tell from the fact that the *Décade philosophique*, a journal close to the educational thinkers of the Comité d’instruction publique [Committee of public education], the body tasked with setting it up, publishes an explanatory definition in November 1794. The article explains what ‘normales’ means in connection to ‘Ecoles’: ‘normales, de *norma*, règle, modèle; écoles qui servent de règle, de modèle’ [normal, from *norma*, rule, model; schools which set the standard, are model schools] (Julia (a), 2016a: 25 n<sup>1</sup>). According to the *Décade philosophique*, then, while a definition is required to communicate what this new sort of school aims to do, there is no difficulty in understanding it. We will see in the course of this article whether it’s quite so clear as they consider, bearing in mind Cryle and Stephen’s eloquent characterisation of the fraughtness around the concept:

At each point in the genealogy we have traced, the normal emerges not as an undisputed force of dominance or compulsory homogeneity but rather as a locus of debate and contradictory assumptions. The normal was formed in controversy and was everywhere nourished by debate. It continues to be surrounded by conceptual clutter and built on contradiction. (Cryle and Stephens, 2017: 353)

This way of describing the tension and mess of emerging concepts and institutions is as helpful for understanding the establishment of the Ecole normale in 1795, I will argue, as it is for the later date span they analyse. As we will see, the aims and role of the Ecole normale were as disputed as the meanings of its name, despite the concise certainty of the *Décade philosophique*’s gloss. And perhaps indeed there may be a case

for arguing that these difficulties were in some way related to the development and tensions of the concept itself.

The writer and extraordinary resource for cultural history, Louis-Sébastien Mercier, author of multi-chaptered descriptions of Paris before the Revolution which he then updated and transformed post-Revolution, also wrote a helpful dictionary of neologisms. It came out in 1801, six years after the *Décade philosophique*'s definition, and five years after the Normal School had both opened and closed. The adjective 'normal' features in it, specifically in connection with the *Ecole*: this tells us how new a word it was, and how unfixed its usage. Mercier repeats the *Décade philosophique*'s definition with its emphasis on the Latin etymology and its meaning as something which rules or directs, although he does not acknowledge his source. He then swiftly moves into critical mode. Here is what he says:

NORMAL – which rules, directs; from the Latin *norma*, rule, model. The Normal Schools: there was a vast and beautiful idea in this establishment; but there is a vice inherent to the professoriat, which is that it almost always degenerates into a sort of priesthood with pretensions to supremacy. [NORMAL – Qui règle, qui dirige; du latin *norma*, règle, modèle. Les écoles normales: il y avait une vaste et belle idée dans cet établissement; mais il y a un vice inhérent au professorat, c'est qu'il dégénère presque toujours en une sorte de sacerdoce affectant la suprématie.] (Mercier, 2009: 336; Julia (i), 2016a: 15)

It is both a vast and beautiful idea and also something that suffers from the *immediate degeneration of the lecturers* who see themselves as a sort of priesthood, as superior to others, and who claim leadership. Mercier, in sum, dislikes what he sees as a self-proclaimed élite group of leader teachers, with exclusive access to influence or even to the truth.

‘Normal’ in this Latin sense as *what rules or directs* was perhaps always potentially problematic in a government with a founding principle of equality and representation for all – and it certainly doesn’t have anything explicitly to do with the earlier standard meaning as a synonym for ‘perpendicular.’ It also has nothing in common with our modern understanding of normal as some form of average. But it does have an interestingly tense and unstable connection to behaviour as model, as an aspiration, and to its opposite, degeneration.

We see a sense of high expectations in the letters sent back by the students to the districts which had selected them: the students from the district of Bernay write of hoping to enter ‘la carrière normale’ [the normal career] as soon as they arrived in Paris: this tells us that to be ‘normal’ is a career, a path (Julia, 2016b: 211; Julia (iii), 2016a: 139). In an (even) more exalted tone, we read the letter of student Etienne Marcel to the president of his district of Delémont (Mont-Terrible) to express his overwhelming sense of gratitude on being sent to the Ecole normale:

I mean that nothing that is in my power will be omitted to make sure that the rays of light which I will be receiving at the Ecole normale, and of which it is the principal source, will be reflected in the most efficient way possible over all your constituents. This is doubtless a sweet feeling of satisfaction, and I will be happy if I can accomplish it. [Je veux dire que rien de ce qui sera en mon pouvoir ne sera omis pour faire réfléchir le plus efficacement possible sur tous vos administrés tous les rayons de lumière que j’aurai reçus à l’Ecole normale qui en est le foyer principal, cette satisfaction est douce sans doute, heureux si je puis l’accomplir.] (Julia (d), 2016a: 346.)

Here the Ecole normale is the main hearth [foyer], source, or sun of light whose rays he hopes he will be able to reflect onwards to all those administered by the district. This

projection of the Ecole normale as the main source of light, as emitting rays of light which the students receive or are given, is a powerful one, possibly at least in part reflected propaganda, but in any case with a powerful onward mission, again with this slightly difficult relationship between its own prime position and its role as facilitating the onward transmission of its rays at equal strength, that is, the notion of a superlative unrepeatable first as opposed to being the first in a series. The finance committee of the Convention put it more imperatively: ‘The Ecole normale must be the head-quarters of education, the metropolis of human knowledge in France’ [L’Ecole normale doit être le chef-lieu de l’instruction, la métropole des connaissances humaines en France] (Baciocchi and Julia, 2016: 442). Does this statement also contain a problem? There is in any case an unworked-out relationship between its role to teach teaching, and its role as a centre of knowledge, unworked out in the sense that these two meanings are overlapping but slightly different, and not synonymous as the syntax presents them.

The man who drew up the plans for the Ecole normale and also lectured at it, the Dominique-Joseph Garat (1749-1833), addressed this double role directly in the debate following his second ‘Leçon’ [lesson] (all lessons were set up with a subsequent discussion in mind). He spoke with an eye to his words being reported to ‘the nation’:

It is good for the nation to hear without delay just how many pupils the Normal Schools contain who will soon be worthy of teaching human knowledge in these Central Schools which the Convention has just decreed. [Il est bon que la nation apprenne, dès ce moment, combien les Ecoles normales renferment d’élèves dignes de professer bientôt les connaissances humaines dans ces Ecoles centrales que la Convention vient de décréter.] (Garat, 2008: 100)

Garat wants the nation to know that the *normal schools* (given here in the plural although in fact there was only one) contain many pupils worthy of teaching human

knowledge in the *central schools* that the Convention had just decreed. So here we get another sense of normal, in that it isn't *central*; in the hierarchy it is above central schools in that its *pupils* are the *teachers* at the central schools.

Thus far we have seen instances where 'normale' has only ever qualified 'école' or in one case 'carrière,' and, apart from Mercier's Neologism dictionary definition, these texts are all by those who legislated to set it up or who financed it, who attended it, or who lectured at it. In sum, they were all part of it.

There are voices outside and even within the system that criticised it, specifically in relation to its interpretation of the notion of *normal*. One external voice, in fact someone who wanted to attract some of its business, is the grammarian François-Urbain Domergue (1745-1810). His understanding of its role was that it should *normalise* teaching across France, which for his area of expertise and interest, pronunciation, meant making it *the same* everywhere. Thus he advertised his own rival course as being:

a normal course, a course which will truly regularise both the principles that need to be taught and also the method of teaching [un cours normal, un cours vraiment régulateur des principes qu'il faut enseigner et du mode d'enseignement.] (Julia (c), 2016a: 142).

The qualification of *un cours normal* with *un cours vraiment régulateur* is very helpful for us. It tells us that Domergue is making an opportunity out of a dispute of some sort, that the Ecole normale is not perceived as being *truly regularising*, although some think it should be. His course will be properly regulatory, and what he means by that is this: that it should produce teachers who will make sure that their students sound the same, just as they feel the same, in and out: 'All the children of the same family must have the same pronunciation just as they have the same feelings' [Tous les enfants de la

même famille doivent avoir la même prononciation comme les mêmes sentiments] (Julia (c), 2016a: 141). This is a powerful statement of the drive to establish (and possibly enforce) uniformity: feelings and speech, in and out, must be the same. The question of uniformity is an important aspect of this debate and we will return to it.

These disputes about what the *Ecole normale* should teach were real, and were felt by its pupils very intensely. One of them, Pierre-François-Sébastien Delattre, wrote to the Convention in April 1795 to ask permission for anyone who so desired to go home. For only the second time, five months after the definition in the *Décade philosophique*, we find a text in which the word is explicitly considered, even if by now we already know that its definition is disputed:

What did [the students] come to do in Paris? To look, they say, for teaching methods which are clear, easy, reliable, likely to smooth away difficulties and to hasten the progress of every branch of knowledge. That is what the very word *normal* signifies. [Que sont-ils venus faire à Paris? Chercher, disent-ils, des modes d'enseignement clairs, faciles, sûrs, propres à aplanir les difficultés et à hâter les progrès de chaque science. C'est ce qu'indique le mot même *normal*.] (Julia, 2016b: 166; Baciocchi and Julia, 2016: 447).

'Normal', for Delattre, has an obvious meaning, which is to teach teaching in the clearest, easiest, most reliable manner, and most likely to allow students to overcome their difficulties and to speed the progress of each branch of knowledge. And for him, the *Ecole normale* has not done this, however obvious it should have been that it should have done. The disputes intensified as it looked more and more likely that it would be closed down: politician Pierre Daunou implored the Convention to allow it to continue operating until 30 prairial (18 June), which, he said was a 'a strictly necessary amount of time' [un délai strictement nécessaire] to complete the lessons, even if they 'hadn't



always had a character that was truly normal enough' [n'aient pas toujours eu un caractère assez véritablement normal] (Julia, 2016b: 65; Baciocchi and Julia, 2016: 444). And what specifically he was aiming to complete was the training of its pupils to be teachers either in primary schools or central schools. His request was turned down. What can it mean that the lessons to that point had not had a character that as not 'truly' (*véritablement*) or 'sufficiently' (*assez*) *normal*? It's not perfectly clear, and yet it's clearly a concession and an admission of fault that the completion of teaching training may be able to go some way towards making up for.

We should also look beyond the apologists and the critics to the satirists. The satires tend to indicate that there was something prodigious about the Ecole normale and that that prodigiousness was the speed of its accelerated operation; this acceleration is what is then particularly focused on for ridicule. In this satirical text, the title evokes a fictional author, supposedly a pupil of the Ecole normale, who boasts about 'the staggering progress that he has made in normal knowledge [*la science normale*]' during the first eight sessions' (Julia, 2016b: 313; Baciocchi and Julia, 2016: 443).

The comical *Fugue normale*, written by one of the pupils, a certain Waré, from Lesparre, mocks the ambitions of the normal school (Waré, 1795; Dupuy, 1994: 193-94).

Dans quatre mois de séance,	[In four months of sittings]
Les plus grands maîtres de France	[The greatest masters in France]
Vous diront	[Will tell you]
Et sauront	[And know how]
Vous apprendre	[To teach you]
Comme on doit en général,	[How in general one must,]
Pour faire un cours normal,	[Go about]

S'y prendre.

[Teaching a normal lesson.]

What's behind this satirical ridiculing of unachievable speed is partly illuminated by Pierre-Marie-Augustin Guyomar, député des Côtes-du-Nord and cloth merchant from Guingamp, who is recorded as having contributed to the debate in the Convention about the continuation or otherwise of the Ecole normale, and saying:

When the Ecole normale was set up, the mania of the old rulers still held sway; it was then thought that it was possible to make scholars in four months; they wanted to *revolutionise* everything, even knowledge [...] In my view, to want to make scholars out of farmers is a brilliant chimera; as long as they can read, write, and count, that's all they need. [Lorsque l'Ecole normale fut établie, la manie des anciens gouvernants régnait encore; on croyait alors qu'on pouvait faire des savants en quatre mois; on voulait *révolutionner* jusqu'à la science [...]] J'observerai que vouloir des cultivateurs faire des savants, c'est une brillante chimère; pourvu qu'ils sachent lire, écrire et compter, c'est tout ce qui leur est nécessaire.] (Julia, 2016b: 67; Baciocchi and Julia, 2016: 445; original emphasis.)

'La manie des anciens gouvernants' refers to the Jacobins; their supposed wish to *revolutionise* everything at speed is here shown to unachievable and ridiculous. Guyomar derides the aspiration to make high-level education universally accessible as *une brillante chimère*: all the farmers need to do is learn to read, write, and count. They're no longer 'esprits égaux' [equal minds]; they're farmers. Whatever *normal* in *normal school* therefore means, it's unnecessary, it's superfluous, dreamed up by maniacs, who wanted to turn everything around, and revolutionise everything *even* knowledge. They were mad, deluded, producing misshapen albeit beautiful creatures.

This cursory survey of the instances in which we find the adjective ‘normal’, almost always in connection with ‘Ecole’ and certainly related to something pedagogical (course, career), tells us how disputed it already it was, even at the beginning of its widespread use in the French language. Even its defenders will concede that the Ecole normale did not have ‘a sufficiently truly normal character,’ and its critics will set up rival courses or deride its accelerated ambitions directly. Once it closed, commentators immediately saw it as a form of idealism that was so disconnected from the real and the necessary as to be crazy.

The rest of this article will explore the associations with the term *normal* and the *normal* school in greater detail, as well as to give more orientation within the historical context.

The project to establish a *cours normal* in order to teach teachers to teach was formalised by the *Comité d’instruction publique* [Committee of Public Education] on 1 Prairial an II (20 May 1794) in 13 articles (‘cours normal’ appears in article 13) (Julia, 2016b: 41-42). Article 11 mentions *citoyens* [male citizens] and *citoyennes* [female citizens] as these future educators. On the 20 September 1794 the Convention nationale instructs the Comité d’instruction publique to produce a report within 2 ‘decades,’ that is, 20 days.

The National Convention, wishing to accelerate that time when it will be able to spread education uniformly [de manière uniforme] across the Republic, charges its Committee of Public Education to present to it, within 20 days, a project to establish normal schools [...]. [La Convention nationale, voulant accélérer l’époque où elle pourra faire répandre dans toute la République l’instruction d’une manière uniforme, charge son Comité d’instruction publique

de lui présenter, dans deux décades, un projet d'écoles normales [...].] (Julia (b), 2016a: 94).

Here again we meet the notion of uniformity, although in this case it refers to equal (uniform) access to education, rather than specifically to any aspiration to produce students who are both internally and externally uniform, as we saw earlier in the grammarian Domergue's view about making sure that families had the same pronunciation and the same feelings.

On 3 Brumaire an III (24 Oct 1794), government minister Joseph Lakanal read to the Convention the *Rapport sur l'établissement des écoles normales* which Garat had drafted (Julia, 2016b: 43-49). On 9 Brumaire (30 Oct 1794), it was adopted and decreed. One citizen for every 20,000 population was to be sent by each district to Paris by the end of 'Frimaire' (December). All mention of 'citoyennes' [women citizens] had disappeared. Each future 'élève' or pupil of the Ecole normale would be reimbursed for their travel expenses and paid an allowance. 1500-1600 new pupils duly arrived in Paris. No accommodation had been arranged for them, their allowances would not commence until the beginning of the actual lessons, and as it happened it was one of the coldest winters in the century. Supplies of firewood ran out and no new stocks could get into Paris, because the Seine was frozen, so costs went up exponentially. The lessons were due to start at the beginning of Pluviôse, but in fact didn't start for weeks. Then there was the question of where to teach these students, all 1500-1600 of them. Initially the Sorbonne was chosen, and works undertaken. These were expensive, highly disputed, and came to nothing. The second option was the Salle des Jacobins. This, it was agreed, would be perfect. It was big enough and needed no works. However, it too was abandoned as a location, the suggestion being that it was symbolically too powerful and too fraught to use,

particularly given that these students were already making their presence felt in the capital, partly as exalted enthusiasts for their future educational mission, partly in their repeated requests for their allowance. The third option, always inevitably unsatisfactory, was the lecture room of the Muséum d'histoire naturelle, which could take maximum 780 students, and was therefore too small. This however is where the lessons did finally take place (Julia (iii) and (iv), 2016a; Baciocchi and Julia, 2016).

The official opening session was on 1er pluviôse an III (20 January 1795), where high levels of enthusiasm and repeated applause were reported (Julia (iv), 2016a: 344). The subjects taught were to be Maths, Geometry, Chemistry, Physics, Natural History, Agriculture, Literature, The Analysis of the [human] Understanding, Morals, The Art of Speaking, Geography, and Political Economics. The idea was that each lesson would be followed at a distance of a few days by a debate; in the lesson the professor would speak, but in the debate, the pupils would be allowed to intervene. The lecturers were not allowed to read out their work but had to speak them, supposedly improvised. Stenographers would take down what was said, and present proofs of the lessons to the lecturers 3 days later, which the lecturers would have 3 hours to correct, and which would then be printed in corrected form and distributed to the students, who would be able to use them to prepare the debates. The debates were also taken down by the stenographers, and given to the lecturers to correct – this time they had 3 weeks to do it. The student speakers however were not given proofs, and were unable to participate in the corrections, as more than one bitterly complained (Joseph Fourier in Julia (iv), 2016a: 337; Louis de St Martin in Garat, 2008: 117-118). In fact the debates stopped occurring relatively quickly – around the end of the month of ventôse (20 March 1795), or about 2 months before the Ecole itself closed (Julia (v), 2016a: 388). After increasing debate about the Ecole normale and its functioning, some of which has

already been mentioned, but some of which was also to do with the practical living conditions of the students and the sheer expense of it all, the École normale was closed down on 30 floréal an IV (19 May 1795), with most of the lessons still incomplete (Baciocchi and Julia, 2016: 440). The students had one final practical success, in a petition with 392 signatures, requesting travel expenses to return home, and clarity from the Convention about their role on returning to their districts. This was granted (Julia, 2016b : 145-148 ; Baciocchi and Julia, 2016: 449). The stenographed corrected versions of lessons and debates would be publicly published, as it were, only a few months later, in the autumn of 1795 (l'an IV de la République). They were republished in an extended edition in 1800-1801 and then again in 1808, and are now the subject of a critical edition (1992-2008) (Julia (f), 2016a: 463-481; 616-617).

The school had been a mixed success. It was supposed to have been 4 months long and not longer but it had started later and none of the lessons were completed. Whether it would repeat each year or not were questions that had not been addressed. But in any case it was supposed to operate rapidly and efficiently, and it was relatively obvious that this had not happened, and that it had attracted all sorts of bad publicity. The question for the next part of this paper however is to return to its initial conceptualisation and explore what that might reveal about the term 'normal'.

Thus, while the idea and indeed the name of the Normal School as a training academy for teachers was imported from Germany (François, 2016: 31-49), its conceptualisation as a rapid revolutioniser of teaching across the new republic was directly borrowed from a highly successful *military* model for rearmament. This was the project to bring citizen students from across the country to learn to make canons and the saltpetre and gunpowder to go with them, the idea being that not only would they learn to do this but that they'd return to their districts and then run foundries, and

that the military production line would be vastly increased: this was an urgent national need in 1794, when France was engaged in fighting Spain, Portugal, Austria, Prussia, Hanover, and Britain. It worked, and it also functioned as a way of spreading Revolutionary fervour, as the students returned to their districts with official governmental bulletins in hand (Julia (b), 2016a: 86). The decree setting it up and requiring each district to send 2 citizens aged between 25 and 30 within 5 days, was announced on 14 pluviôse an II (2 Feb 1794), and the lessons, lasting three ‘decades’ ie 30 days, were due to start on the 1er ventôse; this duly happened, and the first graduates of this school were returning to set up or revolutionise their local foundries by the 2 germinal (22 March 1794), just after a grand ‘fête civique’ [civic celebration] to mark the end of the lessons, in which the pupils ceremonially presented the saltpetre, gunpowder and one bronze canon that they had made to the Convention nationale (Julia (b), 2016a: 85). Jacobin politician Bertrand Barère (1755-1841), whose remark about the accelerating effect of the African sun features in the title of this article, is loud in his acclamation:

The old régime would have required three years to open schools, train students, and complete lessons in chemistry or armoury. The new régime has accelerated everything. [...] This is the influence of freedom, it makes all fruit ripen early, it makes institutions easy. [L’ancien régime aurait demandé trois ans pour ouvrir des écoles, pour former des élèves, pour faire des cours de chimie ou d’armurerie. Le nouveau régime a tout accéléré. [...] C’est ainsi que l’influence de la liberté rend tous les fruits précoces et les institutions faciles.] (Barère, 1964: 208-9, quoted Julia (b), 2016a: 85.)

It was the speed, efficiency, and replicability of this military model which directly inspired and fed into the thinking about the founding of the Ecole normale in

Spring/summer 1794. On 29 floréal an II (18 mai 1794) the Comité d'instruction publique announced that it was commissioning a project 'to propagate public education across the entire territory of the Republic by those revolutionary means already employed for weaponry, powder and saltpetre' [à propager l'instruction publique sur le territoire entier de la République par des moyens révolutionnaires semblables à ceux qui ont été déjà employés pour les armes, la poudre et le salpêtre] (Guillaume, ed., 1901: vol.4, 451, quoted in Julia (b), 2016a: 86). The Ecole normale was not the only educational progeny of this 30-day foundry workshop: a new army school, L'École de Mars, was also set up, due to replace the previous military system, associated with the old feudal nobility which was henceforth called a 'hermaphrodite et efféminée' [[hermaphrodite and effeminate] cast (Barère, 1796: 214, quoted Julia (b), 2016a: 89).

A remark on gender: it is perhaps not surprising, given this militarised model of industrial efficiency underpinned by an aesthetic of severe Republican virtue presented as the opposite of the now-replaced effeminate or half female soldiers of yore, that the initial idea of inviting *citoyennes* as well as *citoyens* to come to Paris to this nursery for teachers should have fallen away. So the French *École normale* in its original 1795 version must be understood in this context: it is conceptualised on the basis of a military model (and military need) which, it is thought, can be replicated in the domain of education; its accelerated effectiveness is accounted for in terms of the Revolution but is also about the urgent needs of a country at war which thinks of citizens in relation to their strength, a strength which is understood as an absence of femaleness. As an extension of this, one wonders whether what is being envisaged is a different form of state-sponsored self-replication, one that in fact avoids variation, and which is therefore understood as more reliable and less like female self-replication, as in childbirth. This is of course just a speculative digression but perhaps it helps us see something of the



sort of expectations of and associations with a school that has the title *normal*, and therefore what *normal* might be understood to mean.

Bertrand Barère's colourful speeches are helpful in this respect. In his report to the Convention nationale about the Ecole des armes et des poudres of Ventôse an II, and the successful accomplishment of its mission, he said:

The place you hold your sittings is the electric plate: the districts are the links in the chain, and the jolt has passed all the way through. [Le lieu de vos séances est le plateau électrique: les districts sont les anneaux de la chaîne, et la commotion a été faite jusqu'au bout.] (Barère in Guillaume, 1901: 829; Julia (c), 2016a: 115).

Here – on 26 messidor an II (14 July 1794) he is addressing the Convention nationale: in calling it the electric plate, he is at least in part simply flattering it. But whether it's flattery and a delusion or not, the electrical analogy is one of immediacy, efficiency, and reach. It chimes with what he had already said only just more than a month earlier when talking in favour of setting up an Ecole normale, as quoted in the title:

The Revolution also has its principles: they are to hasten everything to meet our needs. The Revolution is to the human mind what the African sun is to vegetation. [La Révolution a aussi ses principes: c'est de tout hâter pour les besoins. La Révolution est à l'esprit humain ce que le soleil d'Afrique est à la végétation.] (Barère, 1976: 213; Julia (b), 2016a: 83.)

Perhaps Barère should not be the only measure of the sort of super-charged speed and heat or energy that the Ecole normale seems to be connected to, at least at its conception. Barère after all was a politician deeply bound up with the Terror, and the only member of the Committee of Public Safety to have served throughout its duration; the date of his address to the Convention nationale about its electrifying effect is only

two weeks before the fall of Robespierre, and the inflammability of the political atmosphere at that time needs no commentary here. The following April, the mathematician Laplace will paint for his students a less excitable picture of the ‘slow but irresistible spread of the empire of reason’ [l’empire lent, mais irrésistible, de la raison] – and this is specifically in connection with the adoption of the decimal system, described as ‘a system of measures whose uniform divisions lend themselves most easily to calculation’ [un système de mesures dont les divisions uniformes se prêtent le plus facilement aux calculs], replacing the ‘bizarre and awkward’ [bizarres et incommodes] divisions of the old system. Thus, the ‘the slow but irresistible spread of the empire of reason will in the long term overcome national jealousies and indeed all obstacles which set themselves against the good that can be done by something which is generally felt to be useful’ [l’empire lent, mais irrésistible, de la raison, l’emporte à la longue sur les jalousies nationales, et sur tous les obstacles qui s’opposent au bien d’une utilité généralement sentie] (Laplace, 1992: 117; Julia (d), 2016a: 352). Uniformity in this instance refers specifically to calculable units and to the facility of calculation. Perhaps here we begin to see the context from which the notion of the statistical norm will emerge. In any case, this idea of *uniform divisions* ironing out old difficulties (which might include the difficulties of the old system, national jealousies or other forms of resistance), moving irresistibly to extend the domain of reason, is a variation on this theme of efficacy and reach, in which the *Ecole normale* is presented as a key mover. Perhaps Laplace calls it *reason* and sees it as moving slowly, where Barrère called it *Revolution* and saw it as almost instantaneous, but it’s a parallel process of unstoppable spread, it is *reasonable* (decimal measurements), it is *natural* (the heat of the sun), it is *scientific* (the electrical charge).

We have already touched on how the *Ecole normale* was set up tried to replicate this efficient dissemination internally, with its system of improvised lessons, allowing the speakers to connect more directly with their listeners, its stenographers (Julia (iv), 2016a: 333) recording them, and allotted a specific amount of time to write them up, correct them, and distribute them. Much thought also went into how to write (and also *who* would write) the corresponding school manuals for each subject. Sicard, teaching ‘l’art de la parole’ [the art of speech], stated that all the details of a given subject whether already known or unknown to his citizen students should nonetheless all be included in *un cours normal* because they would then be ‘faithfully transmitted into a volume which, becoming the depository of all useful knowledge, will become a classic’ [fidèlement transmis dans un ouvrage qui, devenant le dépôt de toutes les connaissances utiles, deviendra classique] – what Sicard says here reminds us of the origin of the word *classic*, that is, to be taught in a class (Sicard, 2008: 315; Julia (v), 2016a: 393). In fact there was considerable divergence of views about how what these textbooks should contain, and the textbook project never reached completion. But the point here is really to underline how essential the notion of a smooth process of onward transmission was to the conceptualisation of the *Ecole normale*.

We now turn to the lessons of the philosopher-politician Dominique-Joseph Garat, the author, as mentioned earlier, of the Report on the establishment of the normal schools that Lakanal had successfully presented to the Convention nationale. Garat continued to have a key role in the setting up of the *Ecole normale*, and himself gave the *Leçons d’analyse de l’entendement* [Lessons on the analysis of the (human) understanding]. It is to him therefore that we turn for a deeper understanding of what the *Ecole normale* was supposed to be. In some ways, there could be no worse vehicle for this investigation as not all the lessons he gave were finally printed and in any case

he curtailed the course, for reasons which are not directly relevant to this enquiry.<sup>ii</sup> So there's a limited amount of printed material at our disposal, but nonetheless some quite illuminating lines of research.

Garat is a dogmatist. 'There is only true way to think properly' [Il n'y a qu'une seule manière de bien penser] (Garat, 2008: 85), and this way is to adopt the method of Condillacean analysis<sup>iii</sup>:

We can be assured in advance that there does not and cannot exist any other means of seeing well and observing well, thinking well and speaking well, than to speak, think, observe, and see analytically. [Nous serons assurés à l'avance qu'il n'existe et ne peut exister d'autre moyen de bien voir et de bien observer, de bien penser et de bien s'énoncer, que de s'énoncer, de penser, d'observer et de voir analytiquement.] (Garat, 2008: 89)

This *one way* of seeing and observing, thinking and speaking – an analytical way – is the path that all must learn – and here we hover around the paradox of having to learn something which is presented nonetheless as natural and innate. This presents no problem to Garat though. The way he gets around it is via the notion of *improvement* or in his more intense version, *perfectionnement*, the *perfecting* of the senses and human understanding. But how? Coffee is one option: he mentions it twice; it speeds things up (Garat, 2008: 80). It's not so much that coffee acts on the passive body, but that man can manipulate the 'instrument de [...] sensibilité' by the judicious use of coffee and other food and drink, by the air and the sun (we remember the African sun that Barère mentioned). And this is what the students should learn to do, and learn to teach others to do. They must borrow the techniques of improvability and progress, manifested by great men such as Galileo in his invention of the telescope, and in fact learn to extend their senses, such that they have internal telescopes. This can be done, simply by

learning to use our eyes better, and practicing more. Thus he offers us a model by which one can learn to overcome natural variation in sensory perception (l'instrument de la sensibilité) by dealing with it through external and environmental factors (such as drinking coffee), and also extend the capacities of our senses through practice.

Galileo hugely extended the reach of the organ of sight with the help of an instrument, but are there no means by which we might extend the sphere of all our sensory organs without recourse to an instrument, and simply by learning a better or more skilful way of using them? [ Galilée a prodigieusement étendu, par le secours d'un instrument, la portée de l'organe de la vue; mais ne peut-il pas exister pour tous les organes de tous nos sens des moyens d'étendre leur sphère sans le secours d'aucun instrument, et seulement par une manière plus heureuse ou plus habile de s'en servir?] (Garat, 2008: 79)

So, for Garat, an Ecole normale will teach *the true and the only* way to think and it is also a mode that suggests we can internally modify and improve ourselves.

One of Garat's close friends and collaborators, the doctor philosopher, Pierre-Jean-Georges Cabanis (1757-1808), picks up where Garat left off – and explicitly so – he and fellow Ideologue Destutt de Tracy (1754-1836) credit Garat's lessons as being the founding text of 'Ideology', that is to say, in Destutt de Tracy's 1796 neologism, the *study of ideas*. But Cabanis and Destutt de Tracy didn't lecture in the Ecole normale, by that time closed down. They, like Garat, were members of the newly founded Institut national. Cabanis, picking up Garat's principles of not just ironing out variation in the senses but also improving and extending them, writes about 'the best temperament, that which may be regarded as the type, or general exemplum of human nature' [le meilleur tempérament, celui qu'on peut regarder comme le type, ou l'exemplaire général de la nature humaine] (Cabanis, 2005: vol.1, 474). Having then

considered how rare this is, he concludes that ‘observation alone makes us see that the most perfect temperament is the one which gets closest to it’ [l’observation nous fait voir seulement que le plus parfait tempérament est celui s’en rapproche le plus] (Cabanis, 2005: vol.1, 475); this is in fact a process, and an injunction: it should be possible, via physical education, to get to ‘a perfect type’ [un type parfait] that is unimaginable in contrast with his ‘primitive state’ [état primitif], and thus that ‘hygiene aspires to perfect human nature’ [l’hygiène aspire à perfectionner la nature humaine générale] (Cabanis, 2005: vol.1, 480). It is time, in this era of regeneration, says Cabanis, ‘to dare to do to ourselves what we have so successfully done to many of our companions in existence; to dare to review and correct the work of nature. Bold undertaking!’ [d’oser faire sur nous-mêmes, ce que nous avons fait si heureusement sur plusieurs de nos compagnons d’existence; d’oser revoir et corriger l’œuvre de la nature. Entreprise hardie!] (Cabanis, 2005: vol.1, 481). As with Garat, this is improbability turned inwards. But who are these ‘compagnons d’existence’? Is he referring to women? To animals? To those peoples who have been brought out of the ‘état primitif’ [primitive state] whom he had been discussing only a few pages earlier? He does not specify, and we cannot tell. The vagueness and conviviality of ‘companions of existence’, along with his exalted tone partly submerge the meaning, but it is not invisible: this is a project of big-scale improbability. In any case, Cabanis pushes this the next logical stage onwards, that ‘in the long term, and for collections of men en masse, [one could] produce a sort of equality of resources which is not at all to be found in their primitive organisation, and which, similar to the equality of rights, would then be a creation of Enlightenment and of perfected reason’ [à la longue, et pour des collections d’hommes prises en masse, [on pourroit] produire une espèce d’égalité de moyens qui n’est point dans l’organisation primitive, et qui, semblable à

l'égalité des droits, seroit alors une création des lumières et de la raison perfectionnée] (Cabanis, 2005: vol.1, 481-82). And indeed he understands that equality means that differentiability will be harder, although 'doubtless' 'particular traits' would mean that it would still be possible to tell individuals apart:

In the same way, in the human race as perfected by long physical and moral development, particular features would no doubt still make it possible to tell individuals apart. [De même, dans la race humaine perfectionnée par une longue culture physique et morale, des traits particuliers distingueroient encore, sans doute, les individus.] (Cabanis, 2005: vol.1, 483.)

This, it seems, is where Garat was tending, towards what one might unthinkingly and ahistorically call a process of *normalisation*, a term which, however, the work of Cryle and Stephens show us can never be taken for granted. Perhaps in this specific context, pre-dating the coining of that concept, the terms *uniformity* and *equality* are more exact. What I would wish to do instead therefore is to offer Cabanis's extension of Garat's model as a way of understanding what Revolutionary politicians and philosophers hoped the Ecole normale would do, that is, equalise people and also perfect them. And the way the perfecting was supposed to happen was in ironing out variation and in extending human capacity. Within that movement towards equality, however, there are some limits. As we have also seen, 'people' here really refers primarily to men; they are closer to the stronger human specimen which is the 'type parfait' in Cabanis's abstract terminology, they are naturally further away from that which is 'effeminate' or 'hermaphrodite', as we heard in Barrère's more gendered and insulting language. It is curious to note that the 'companions of existence,' this unspecified but already improved group, also feature in this push towards equality, and it is also curious to see

that it is not easy to discern whether this conceptualization is or is not a hierarchical one.

Of course, as will have been clear, the Ecole normale was not the highly effective motor for the improvement and standardisation of education across France that it had been set up to be. It was too cold in Paris that winter for the unfinanced students to cope; they got ill; they weren't able to provide for their families left unresourced at home; they clamoured to return. The Muséum d'histoire naturelle was not big enough to take them all, and the stenographers could not get the lessons transcribed quickly enough; they also fell ill because of the cold. The transparency and the accelerated efficacy failed; Garat was accused by a student of being an atheist and materialist; a student demonstrator, Fourier, was accused of being a drunkard; the districts, caught up in the fervour that followed Robespierre's fall, called for an 'épuration générale' [general purification] of the Ecole normale. It was at once too utopian and too military in its deluded plans for accelerated teaching and efficacy to work; the material conditions were awful; and the subjects and the individuals involved were highly polemicised and politicised. But we can nonetheless get a sense of what 'normal' was supposed to mean in connection to education, and we can also see, I suggest, how fraught and subject to pressure it already was.

In conclusion, it seems appropriate to ask whether the aims of the military rearmament model school that was behind the conceptualisation of the Ecole normale, that is to say, aims related explicitly to increasing the fighting power of the embattled French nation, cast any sort of shadow over the Ecole normale, the thinking that underpinned it and also developed from it.

Accelerated and powerful like an electrical charge or intense and powerful like the African sun, an improved form of nature that is improved both because it has



internalised artificial inventions like the telescope but also because it has learnt to copy ‘primitive’ peoples, this form of hyper-effective education as well as the hyper-effective reason of the person educated does seem modeled on a notion of unstoppable energy and power that appears itself to derive from a certain sort of militaristic and industrialised thinking. And its techniques for improving natural capacity seem not just paradoxical and incompatible but also quite simply unachievable, based on a fiction of generalised improvability that itself derives from a model which thinks about people as maximisable units of power.

And so I wonder, to come back to the history of the concept of the normal and the norm, whether the thinking behind the *Ecole normale* and the debates around it were more indirectly influential in the development of the notion of a statistical medical norm than Peter Cryle and Elizabeth Stephens have thought, and that the missing links are to be found in the *mêlée* of notions around rules and standard-setting, improvability, reproduceability, efficiency, uniformity, and equalisation, all of which were projected onto or associated with the *Ecole normale*, and subsequently continued by the medical philosopher Cabanis with his speculations about *le type, ou l'exemplaire général de la nature humaine* [the type, or general exemplum of human nature].<sup>iv</sup> If, however, we have been able to add some new detail to what Cryle and Stephens laid out, it is only because we have followed in their path.

## BIBLIOGRAPHY

Baciocchi, S. and D. Julia (2016) ‘La Dissolution de l’École’ [The Dissolution of the School], in *L’École normale de l’an III* [The Normal School of Year 3], ed. Julia, pp.425-462. See Julia 2016a for full reference.

- Barère, B. (1976 [1794]). ‘Rapport fait à la Convention nationale sur l’éducation révolutionnaire, républicaine et militaire’ [Report delivered to the National Convention on Revolutionary, Republican, and Military Education], in *Archives parlementaires, 1ere série, 1787-1799* [Parliamentary Archives, 1st series, 1787-1799], t. 91, Paris: Editions du CNRS.
- Barère, B. (1901 [1794]). ‘Rapport fait au nom du Comité de salut public, sur l’état de la fabrication révolutionnaire du salpêtre et de la poudre, et sur la nécessité de supprimer l’agence nationale, ci-devant la Régie des poudres et des salpêtres, Convention nationale, séance du 26 messidor an II (24 juillet 1794)’ [Report delivered to the Committee of Public Safety, on the state of revolutionary production of saltpetre and gunpowder, and on the necessity of closing down the national agency previously known as the Department of powders and saltpetres, National Convention, session of the 26 messidor Year 2 (24 July 1794)], in J. Guillaume, (ed.), *Procès-verbaux du Comité d’instruction publique de la Convention nationale* [Minutes of the National Convention’s Committee of National Education]. Paris : Imprimerie nationale. Volume 4.
- Cabanis, P.-J.-G. (2005 [1802]). *Rapports du physique et du moral de l’homme* [The Connections between the Physical and the Moral in Man], ed. S. Nicolas. Paris, L’Harmattan. 2 vols.
- Cryle, P. and E. Stephens (2017). *Normality: A Critical Genealogy*. Chicago and London, Chicago University Press.

Dupuy, P. (1994 [1895]) *Le centenaire de l'école normale, édition du Bicentenaire* [The Normal School's Centenary, a Bicentenary Edition]. Paris, Presses de l'École normale supérieure.

Foucault, M. (1977) *Discipline and punish: The Birth of the Prison*, trans. A. Sheridan. London, Allen Lane.

François, E. (2016) 'L'École normale : une création allemande ?' [The Normal School : a German creation?], in *L'École normale de l'an III* [The Normal School of Year 3], ed. Julia, pp.31-49. See Julia 2016a for full reference.

Garat, D.-J. (2008 [1795]). *Leçons d'analyse et d'entendement* [Lessons on analysis and understanding], ed. G. Gengembre et al, *L'École normale de l'an III* [The Normal School of Year 3], ed. J. Dhombres. Paris, Editions ENS. Vol. 4, pp. 43-160.

Julia, D. ed. (2016a) *L'École normale de l'an III : L'Institution et ses élèves, Introduction historique à l'édition des Leçons* [The Normal School of Year 3 : The Institution and its pupils, a historical introduction to the edition of the Lessons]. Paris, ENS Editions.

See also under Bacciocchi and François. Including :

Julia (a): 'Préface' [Preface] in *L'École normale de l'an III* [The Normal School of Year 3], ed. Julia, pp.15-27.

Julia (b): 'La fondation de l'Ecole normale de l'an III' [The Foundation of the Normal School of Year 3], in *L'École normale de l'an III*, ed. Julia, pp.83-104.

Julia (c): 'La mise en œuvre du décret du 9 brumaire' [The Enactment of the Decree of 9 brumaire], in *L'École normale de l'an III*, ed. Julia, pp.115-169.

- Julia (d): ‘Le déroulement des Leçons dans l’amphithéâtre du Muséum’ [The Running of the Lessons in the Lecture Theatre of the Museum of Natural History] in *L’École normale de l’an III*, ed. Julia, pp.333-370.
- Julia (e): ‘Les ‘conférences’ de l’Ecole normale: typologie des débats’ [The ‘conferences’ at the Normal School : classification of the debates], in *L’École normale de l’an III*, ed. Julia, pp.371-421.
- Julia (f): ‘Le destin ultérieur des Leçons : les éditions des *Séances des écoles normales*’ [The subsequent destiny of the Lessons : the editions of the *Sessions of the Normal School*] in *L’École normale de l’an III*, ed. Julia, pp.463-481.
- , ed. (2016b). *L’École normale de l’an III. Une Institution révolutionnaire et ses élèves : Textes fondateurs, pétitions, correspondances et autres documents* [The Normal School of Year 3. A Revolutionary Institution and its Pupils: Founding Texts, Petitions, Letters, and other documents]. Paris, ENS Editions.
- Laplace, P.S. (1992 [1795]). *Leçons de mathématiques* [Lessons of Mathematics], ed. B. Belhoste et al, *L’École normale*, ed. J. Dhombres. Paris : Dunod. Vol.1, pp.9-167.
- Mercier, L.-S. (2009 [1801]). *Néologie* [Neologisms], ed. J.C. Bonnet. Paris, Belin.
- Sicard, R.A. (2008 [1795]). *Leçons d’Art de la parole* [Lessons in the art of speech], ed. G. Gengembre et al, *L’École normale de l’an III*, ed. J. Dhombres. Paris, Editions ENS. Vol. 4, pp.161-520.
- Waré (1795). *La Fugue normale, pot-pourri national, en vaudevilles* [The Normal Fugue, a national pot-pourri, a series of comic sketches]. Paris, chez les marchands de nouveautés.

Warman, C. (2010). 'From pre-normal to abnormal: the emergence of a concept in late eighteenth-century France', in *The Natural and the Normal in the History of Sexuality*, ed. P. Cryle and L. Downing, Special Issue of *Psychology and Sexuality*, 1(3): 200-213.

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<sup>i</sup> Dominique Julia's edited volume *L'Ecole normale de l'an III* (Julia, 2016a) is the most extraordinary resource for study of the Ecole, and I have mined it heavily. It has a supporting volume of source texts and appendices (Julia, 2016b): when the sources appear in both, I give the page reference to the source text first. Multiple authors including Julia himself wrote chapters in this volume; for proper acknowledgement I give the author as well as the editor, but for reasons of space I have unfortunately been obliged to take out the details of the source reference. In the case of Julia's own chapters, I number them for clarity. I should add that neither of these volumes make the term 'normal' the object of analysis.

<sup>ii</sup> These are related to accusations of complicity with the September massacres of 1792, when Garat was Minister for Justice, but also to severe, vocal, public criticism from one of his students, Louis-Claude de St-Martin (1743-1803), author and reactionary philosopher, who accused him of being a materialist (Garat, 2008: 134).

<sup>iii</sup> 'Analysis' in this context is a term specifically related to the philosophe Condillac whose posthumously published work *La Logique* (1780) preached that all subjects should be studied by breaking them down into their smallest parts – this is known as decomposition - and that it is only then that they can be really understood, and progress made.

<sup>iv</sup> In this sense, our work here confirms Foucault's conclusions: 'In a sense, the power of normalization imposes homogeneity; but it individualizes by making it

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possible to measure gaps, to determine levels, to fix specialities and to render the differences useful by fitting them to one another. It is easy to understand how the power of the norm functions within a system of formal equality, since within a homogeneity that is the rule, the norm introduces, as a useful imperative and as a result of measurement, all the shading of individual differences.’ (Foucault, 1977: 184, quoted Cryle and Stephens, 2017: 8).