

Phrenologists on Sex Crime: Recalling Early Neurodevelopmental Anticipations of "Paraphilia"

Diederik F. Janssen

Independent Researcher, Nijmegen, The Netherlands

[Sexual Offender Treatment, Volume 10 (2015), Issue 2]

Abstract

Early to mid-nineteenth century phrenological texts advanced primitive neurodevelopmental theories of sex crime and of what would later be called sexual perversion. Sporadic phrenological observations on "pedophilia" (avant la lettre), specifically, long preceded its nomination as a distinct perversion in the early 1890s. Systematic studies on the neurological characteristics of sex offenders were not undertaken until the early 1980s, however. These historical facts raise the question of what was driving the will to understand "the libertine" and eventually "the pervert" (later to be rechristened as "paraphile") in terms of not only "mental disorder" but even of organic disease. Was it transpiring fact or the durable prescientific imago of a metaphoric beast whose very material core - its constitution, its design, its blood - would prove different from, and inferior to, that of a morally sane human being? The sex offender's brain, genes, and hormones seem to be objects of fascination for reasons that remain as extra-scientific as they were long called "pseudo-scientific". The question of what to make of neurology in this context warrants historical as well as anthropological answers not to be expected of neurologists and quite regardless of their findings.

Keywords: phrenology, paraphilia, pedophilia, history of psychiatry, history of the neurosciences, history of sexuality

Recent studies suggest a neurodevelopmental basis for pedophilia, linking minor physical anomalies to indicators of a sexual preference to children (Dyshniku et al., 2015; Tenbergen et al., 2015). It is not my intention to provide a critique of this research paradigm, but as a preface to the attempt to explore its prehistory presented below, it seems worthwhile to cite its authors' acknowledgment of enduring methodological limitations, including the near unavailability of research interested, where defining the explained variable, in teasing apart (a) an ICD or DSM diagnosis of "mental disorder" from (b) a despised or pathologized erotic inclination, and (c) a status of having criminal antecedents taken to evidence or prompting the diagnosis of (a) and/or "ascertainment" of (b).

One might argue that the nuance between (a) and (b) was only nominally acknowledged by the APA in its 2013 *DSM-5*, and that this token sensibility (which seems to have honored an idiosyncratic gesture by Sexual and Gender Identity Disorders Work Group member Ray Blanchard) had as little science to it as the inclusion of "sexual deviations" (including Homosexuality) in the "sixth" (1948) *ICD* and first (1952) *DSM*. Going forward from the *DSM-5*, in any case, assent by mental health workers to the stipulated distinction between "paraphilic disorders" and "paraphilias" will do little to the sampling issue haunting neurological correlates signaled above. On the whole neurological research largely works within, and consequently is in a bad position to disconfirm, the psychiatric categories retained from the bygone eras in which their neurological basis was postulated.

Whence the Will to Neurologize Unpalatable Sex?

To empiricists, the issue may seem strictly one of controlled and replicable research set-ups with suitable populations and adequate sample sizes. Looked at from a more interpretive cultural historical position, the modern interest to neurologize sex offenders may appear more driven and sustained by millennia-old cultural intuitions, namely those that pronounce illicit modes of comportment as *contra naturam* (Boswell, 1980, pp. 303-332; Williams, 2009, pp. 269-279), than by the tendentious empirical probes these intuitions have ended up commissioning since the nineteenth, and especially late twentieth, century. The scramble for recognizing "minor physical anomalies" and ultimately "biomarkers", in this light, may seem close to a search for new, "real" stigmata that would somehow confirm, reassert or reinforce the increasingly monitored stigma of "mental illness" offered by psychiatrists.

Historically, postulations of a "psychopathological" status of erotic orientations have long anticipated the earliest systematic studies of neurological markers or correlates, and these postulates had in turn long been anticipated both by specific laws barring their indulgence and by metaphoric invocations of "morbidity" apropos such indulgence. Most of the earliest "sexual neuropathy" and "sexual psychopathy" theorists were degenerationists and most of the subsequent ones were psychoanalysts. Their science - their speculative neurology, psychology and even most of their terminology - is barely remembered by most professionals working in the area today. And yet the latter's work is set up so as to recite and entrench the same Western trope of sexual "pathos".

Neurological profiling seems intended to confirm the prescientific metaphor of illness, but it is hardly indicated by psychiatric definitions or research. Insofar as such profiling might clarify etiological questions it is irrelevant both to legal and psychiatric proceedings. Today's neuro-imaging studies discuss "paraphilic" subgroups of incarcerated or paroled law transgressors, rarely "paraphiles" per se. The sex deviant is thus known mostly to the extent he is also a sex criminal. Psychiatry's stance here is ambiguous. *DSM-5* criteria of some "paraphilic disorders" explicitly refer to involvement of "nonconsenting persons" though in no case the criterion is made necessary. The U.S. example of *voyeurism* demonstrates that cultural associations between crimes and consent-based "paraphilias" may be so intimate as to have them carry the same name (NCPCA/NDAA, 2009). This homonymic slippage in the first instance pins "mental disorder" to laws, not neurological profiles. What no doubt caters to universalistic, including neurological and virtually all clinical, approaches to mentioned "paraphilias", in fact, is the circumstance that the crimes their satisfaction would entail (public display of nudity, breach of privacy, child seduction, "rubbing against a nonconsenting person") are universally criminalized within, perhaps even near-universally beyond, the modern Western world. But this points in the first instance to jurisdictional convergence (especially convergent assumptions on sexual agency and justice in post-WWII codification of human rights and coeval multilateral constructions, for instance, over what should by definition constitute "child sexual abuse"), not any biological law.

It may be ventured that today's tandem gesture of psychiatric enumeration and neurological clarification is still a frontispiece - hardly the moderator - of distinctly modern forms of "caring" for sex offenders. Historically, related ministrations (diagnostic, psychodynamic, therapeutic) have been transparently transcribed from one criminal, neurotic and child-endangering scapegoat ("the recruiting homosexual") to the next ("the grooming pedophile"). Consider whether it was ultimately a cultural, or a scientific, accomplishment that homosexuality and masturbation have been excused from neuropsychiatric belaboring. Their contemporary indulgence is still harassed by psychiatric discourses at times (masturbation by those of "compulsion" and "addiction", for instance), but their otherwise robust dissociation from neuropsychiatry in the global North today is broadly celebrated as the cultural achievement that it ultimately is: the accommodation of former moral transgressions

within the self-congratulatory fold of bourgeois "normality".[1] How champions of the neurobiological turn in sex offender research frame this situation, illustratively, is to coin a scientific-sounding and culture-free term for it that would refer everything back to neurophysiology once again: *euphilia* (Cantor, 2012, p. 237). A standup comedian would have harvested no few laughs with that one; but its conceptual implications are earnest.

Historicizing the Neurology of Perversion

Perusal of the sickness metaphor around sex crime appears to precede forensic research in a motivational sense but also antedate it in an historical sense. This at least was the case for both "homosexuality" and "pedophilia", that is, before any elementary distinction between these categories was made and before they made their split entry into psychiatric nomenclature by the mid-nineteenth century (Janssen, 2015). Below I briefly chronicle the early nineteenth century phrenological literature based on neuro-anatomist Franz Josef Gall's (1758-1828) "organology" that importantly both anticipated and ignored this split entry, as it pioneered neurological ideas about sexuality including sex crime. If one might aim for an elucidation of how offenders are treated, and if the neurocognitive sciences have articulated a cardinal modern mode of doing so ("recognizing" nervous-mental stigmata by representing offenders as "degenerate", "psychopathic", "cognitively disordered", and so on), taking a look at the earliest proponents of such treatment might be a place where one might start teasing apart the will to such a treatment and the science that came to back it up.

The onset of a specific neurophysiological turn in modern research is particular: it arose in, and catered to, neoliberal America of the 1980s, a concomitant punitive turn (Lancaster, 2011) in morals legislation, a coeval turn away from psychodynamic theory, and a coalitional focus away from an untenable anti-homosexuality, to a new anti-pedophilia, paradigm of middle-class anxieties. Most of research before the 1980s depended on psychodynamic theory, interested in understanding the person, not the brain, of the offender. Psychoanalysis referred sex offences back to infantile traumas, but not to fetal neurochemistry. Until well into the 1980s virtually all suggestions for a cerebral theory of "sexual deviation" came from incidental case reports on unusual sexual tastes as apparent accompaniments of brain disease (tumor, dementia, epilepsy, trauma) or as successfully mitigated by elective stereotactic neurosurgery (e.g. Green, 1972). Hardly any article dedicated to brain research on sex offenders, or "paraphiles", *per se* was published before the early 1980s, when results from EEGs and CT scans performed on forensic subjects began to be reported (by Fred Berlin among others). We see here the shift of research focus from deviate sexual acts as rare symptoms of organic disease to deviate sexual orientation as a class of organic syndromes onto itself.

These ideas were far from new. Indecent behavior involving children became recognized as a generic symptom of a variety of organic neurological and neurodegenerative conditions in the German forensic medical literature of the early 1880s. Even early twentieth century authorities including Freud, Bleuler and Kraepelin, discuss pedophilia strictly in these neurosymptomatological terms. From 1890 onward "pedophilia" also became described as a distinct neuropsychiatric condition (Janssen, 2015). Of note, already in the late eighteenth century one encounters German-language medical forensic characterizations of "boy love" (*Knabenliebe*) as a "morbidity of the soul" (*Krankheit der Seele*). Yet empirically speaking the term morbidity was to remain pure metaphor until well after Albert Moll advanced the hypothesis that erotic age preference, just as erotic gender preference, was the outcome of psychosexual differentiation (1898, pp. 160-194, 478-481).

Of further note, throughout the nineteenth century and even into the twentieth the psychiatricization

of "violation of boys" (*Knabenschändung*) remained tied to notions of gender deviance (eventually as "contrary sexual feeling" or "sexual inversion"), not to the age or indices of physical maturity of preferred or involved partners. Only from 1890 onward, European and American authors independently begin to speak (briefly and generally) of the existence of a group of preferential "child lovers" (*amoureux des enfants*, in the words of French criminal anthropologist Émile Laurent) or child sex offenders, and to read "erotic age preference" as indicative of an idiopathic disturbance, distinct from "sexual inversion" (homosexuality) as well as from mere "vice" and libertinism (Janssen, 2015). One encounters early classificatory allusions to pedophilia, for instance, in work by Laurent, Moll, Italian sexologist Guglielmo Cantarano, Chicago urologist George Frank Lydston, Spanish professor of general pathology José de Letamendi, and French writer Marc-André Raffalovich. It becomes tentatively named *Pädophilie erotica* by forensic psychiatrist Richard von Krafft-Ebing in an 1896 article, which is conventionally regarded the onset of the forensic psychiatric literature on the subject. As argued, a neurodevelopmental theory of erotic age preferences would already be advanced two years later, by Moll. Krafft-Ebing rather construed pedophilia (and "gerontophilia": Janssen, 2014) as fetishistic, that is, based on chance associations of arousal with idiosyncratic stimuli in early life.

However, the pathologization of "erotic age preference" had a small but interesting prelude in the Anglophone phrenological literature of the early through mid-nineteenth century. This seems of historical note in the light of phrenologists' never clear distinction of the problem of exclusive same-sex intimacy and that of the sexual perversions, a taxonomical gesture to be consolidated first in the "sexual pathology" of the concluding three decades of the nineteenth century. The gesture was of course to be reaffirmed across the global North and eventually worldwide in the twentieth century distinction between depsychiatrized "sexual minorities" and enduringly psychiatricized and neurologized "paraphilias" (whether "ascertained" or "diagnosed" as "disorder" in the *DSM-5* context). Recalling the prehistory of this distinction, in other words, is recalling a scientific gesture foundational to contemporary Western sexual culture, law, and science.

The phrenological take on pedophilia, *avant la lettre*, deserves specific recalling given that it featured (1) many of the first isolated instances where the existence of pedophilic preferences were at all attested, (2) the first attempts to read and explain the phenomenon neurologically, and (3) the first attempts to have these neurological conjectures do the bidding of extant moral and legal ramifications. Illuminating the phrenological prehistory of the current neurodevelopmental turn in paraphilia research is all the more interesting given the fact that it preceded *all* of the "diagnoses" of the later "sexual pathology" scene, and that it has a long (even a long nineteenth century) history of being regarded as a scientifically arguable movement tending to moral philosophy. Where this leaves the current neurological take on paraphilia will be briefly appreciated by way of coda.

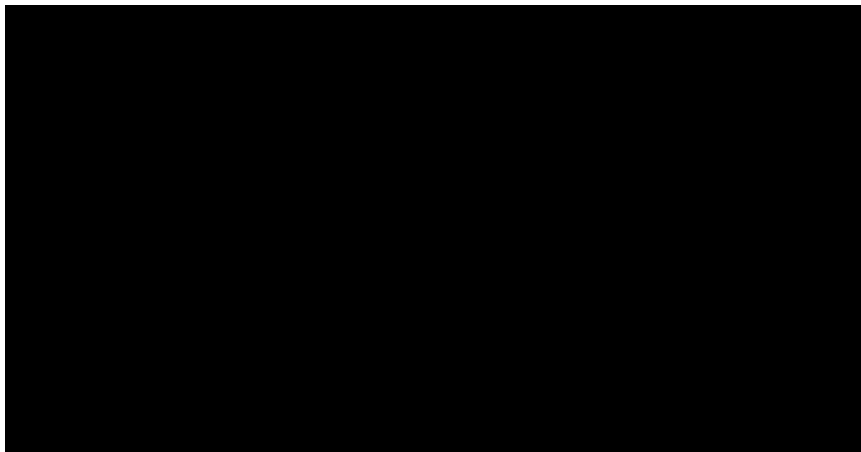
"Perverted Amativeness"

Phrenology refers to a range of nineteenth century attempts to localize the cerebral seat of morality (Verplaetse, 2009), more specifically to identify supposed "organs" thought to express circumscribed character traits and moral dispositions. Phrenologists were among the first to supply an empirical and quantitative basis to the conjecture that non-normative sexual orientations were somehow disturbances, or "perversions", of otherwise "normal" cerebral functions. They also assumed, or thought to have verified, a number of gender differences in brain function, including those pertinent to eroticism. Working on an eclectic basis of craniology, tentative forms of craniometry, physiognomy, forensic psychiatry, autopsy, character analysis, and Christian ethics, phrenologists might thus be considered pioneering forensic sexologists. Although the theme of sexual perversion animates phrenological debate only marginally, some later popularizers did write lengthy chapters on "Abnormal Love, Or, Its Averted, Perverted, Deadened, and Other Like States:

Their Causes and Cures" (Fowler, 1870, pp. 297-361; cf. Fowler, 1859, pp. 175-179; 1883, pp. 171-191) in an age before much of what was to become clinical sexology.

In many phrenological publications the corpus of empirical findings originally and tentatively advanced by Gall soon degenerated into tracts on moral hygiene and moral theology. Virtually all of it is today regarded as fully conjectural. Neither Gall nor popular phrenologists writing diatribes about "vice" and "sin" juxtaposed to Christian "virtue" needed, and they consequently never advanced, a differentiated system of sexual nosology. Still they purported that God showed His intentions in the natural laws governing the moral animal, and published (often self-published) their sermons under the selling title of "Sexual Science". To many of the later authors phrenological concepts offered very little but a conveniently scientific-sounding vocabulary for Christian character building, the championing of "conjugal talent" and fidelity, and of a domestic gender order summed up by the phrase "Man the Commander, Woman the Obedient" (Fowler, 1870). Much of the commentary about sexuality in American (especially Fowlerian) "practical phrenology" entailed little more than Christian courtship etiquette and marriage counseling. Already by the late 1830s, moreover, a large spectrum of clinical, ornithological, and veterinarian observations was available for an increasingly critical assessment of phrenological and other neurological claims on sexuality (e.g. Ryan, 1839, pp. 358-400).

The core idea was that moral faculties corresponded to the size and health of cerebral "organs". Faulty indulgence and concomitant enlargement of the organ of *amateness*, the supposed cerebellar seat of "the amative impulse" (Spurzheim, 1815, pp. 277-285; 1825a, pp. 128-135; see also Macklis & Macklis, 1992; Shortland, 1987), were etiologically associated with rape involving women and girls, indeed generically with "perversion" of the heterosexual or procreative function understood to be the proper deployment of said propensity. It would generally predispose to "erotic mania" (Gall, 1818, p. 125; Boardman, 1847, p. 210), "libidinousness" (Clarke, 1835, p. 5), or "incontinence". This would include early onset, excessive or compulsive onanism, and childhood "nymphomania". It was further believed that "In most criminals the organ of Amateness is largely developed, and [that] abuse of the sexual feeling is generally one of the causes of their dissipation, and of their incentives to crime" (Anon., 1837, p. 397). A small amative organ, conversely, would translate to hyposexuality, asexuality or sexual aversion. In vivo the organ's size was estimated by the distance between the retro-auricular mastoid process and the external occipital protuberance, as well as by skin temperature and general thickness of this region (see Figure 1). The lateral part was considered "more animal", the medial side "more platonic".



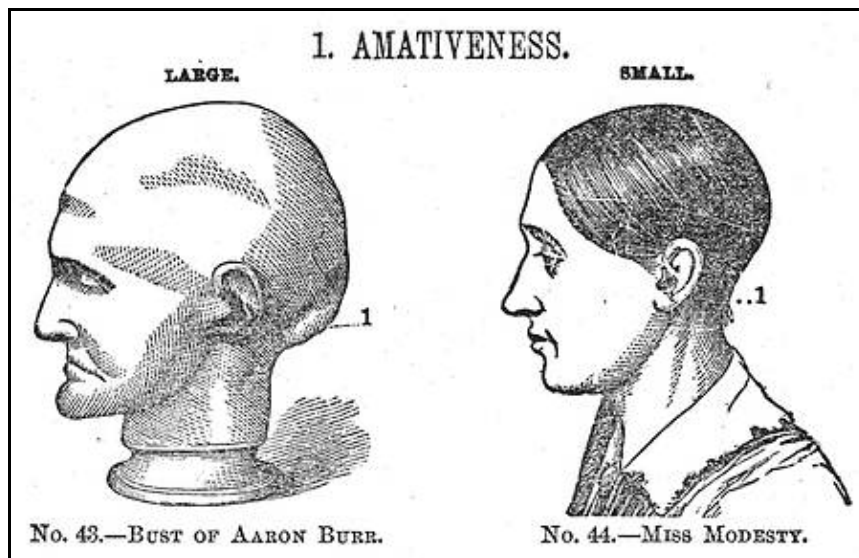


Figure 1: Amativeness. Taken from O.S. Fowler and L.N. Fowler (1859, p.75).

Gall's disciple Johann Spurzheim and later authority George Combe agreed that of all phrenological conjectures, those pertaining to amativeness were the most robust. The organ was in fact subject to large scale quantitative studies. One study found that when comparing 574 "idiots" (specifically studied as to whether they were "given to masturbation, or not") to controls of average intelligence, the former's "manifestation of amative feelings" scored 16.5 to 10, and the size of their cerebellar "amative" region 14 to 10 (Howe, 1848, p. 98, and appendix, pp. 41, 42, 44).

While the naming and description of distinct sexual perversions only occurred from around 1850 onward and in other than phrenological contexts (Foucault, 1976; Lantéri-Laura, 1979), "amativeness" gave rise to three nuances in conceptualizing sexual aberrations. In Gall and many proponents the organ was connected to and named after the "reproductive" ("sexual", "conjugal", "connubial") instinct.[2] That instinct's development, precocity, or derailment was thought to be effectively that of a supposedly discrete cerebral locus. Others, following Spurzheim, distinguished "amativeness" from reproduction, and considered the latter merely the proper focus and outcome (the "destination") of the former. "Perversion" here lay more in the improper control or lack of proper education - ultimately, in unrestrained "indulgence" or "abuse" - of a character trait, or innate impulse, topically represented in the brain. This pathophysiological concept of "abuse" aligned with earlier ideas about childhood "self-abuse" (Spurzheim, 1821, pp. 223-224). A third and later yet scientifically regressive idea, that of "the amative" as a distinct physiognomic type (e.g. Mortimer [Gallichan], 1898, pp. 171-173), allowed for sexual desire to inform a continuum from merely notable to fully maladaptive personality types. The latter nuance is rarely elaborated in English sources (in any case before mid-1890s writings on "sexual inversion" by Havelock Ellis) and more often than not expresses the pre-nineteenth century sense of "the libertine", not the nineteenth century nuance of "the pervert" or that of "the invert".

In defending his cerebellar theory of sexuality Gall himself found little occasion for making nosological distinctions such as between non-heterosexuals and the detained rapists he encountered in houses of correction. Early on he briefly comments that "nur aus einer widernatürlichen Entwicklung dieses Organs, läßt sich der widernatürliche Trieb der Päderasten, Tribaden und Sodomiten erklären [it is only from a counternatural development of this organ

{cerebellum} that the counternatural {sex} drive of pederasts, lesbians and sodomites may be explained]" (1806, p. 345). Men with an "aversion to women", "men whom nature devotes to celibacy" and "ladies' men" showed underdevelopment of the organ (Gall, 1818, pp. 96-98), prostitutes and women with "masculine constitution" an overdevelopment. Recidivist inmates of a Dutch House of Correction "addicted to similar disorders" and having large cerebella would beg to remain imprisoned out of fear of relapsing (Gall in Gall et al., 1838, p. 26). Here Gall does not specify sexual "disorders" but does seem to compare, and thus distinguish, them from same-sex eroticism:

When motives of a higher order, and great moral and intellectual qualities, do not sustain individuals thus organized [excessive cerebellar development], that extent of sexual enjoyment which nature intends, does not suffice to satisfy their desires: it appears to them insipid; and they burn with a fire resembling that which consumes individuals in large societies of the same sex secluded from the other. (Ibid., p. 26)

To later phrenologists including Robert Macnish and Orson Squire Fowler, by contrast, excessive homosociality (implicitly taken to signify or prefigure homoeroticism) was considered the corollary of a faulty use of the faculty and supposed cerebral "organ" of *Anhänglichkeit* or *adhesiveness* (Lynch, 1985).[3] Walt Whitman famously appropriated the latter term in an age without much of a concept of, or nomenclature for, homosexuality (Sarracino, 1990).

A combination of pronounced activity of three supposed cerebral organ-based "animal propensities", especially, would explain a spectrum of sex crimes, if not sexual impropriety in general:

...Amativeness, which, singly, leads to rape; combined with Destructiveness, to rape and murder, and also, at times, to murder from jealousy; and with Secretiveness, to immoral intrigues between the sexes. (Caldwell, 1832, p. 402)

Or, as a much later text confirms, "It is by the faculties in *combination* with Amativeness that we decide as to its method of action and its power of control, - whether it be normal in action, or exaggerated to an immoral degree" (Olmsted Stanton, 1890, p. 823, italics in original). Most phrenologists, however, imagined a less differentiated intrapsychic battle between improper impulse and proper control. Accordingly: if "not controlled by decency and politeness, this feeling ["faculty" in the 1871 edition] [i.e. amativeness] may lead to libertinism and licentiousness" (Vago, 1866, p. 5/1871, p. 21). Or again: "When its development [i.e. of amativeness] is very large [sic], it leads to libertinism and conjugal infidelity; but when under the guidance of the moral and reflecting faculties, it excites to mutual kindness, and the exercise of all the milder amenities between the sexes" (Smart, 1835, p. 335/1839, p. 298). Or lastly: "When found in combination with the other propensities altogether large, and the sentiments and reflecting faculties small, it leads to many unpleasant occurrences. Many of the casts of criminals in the [author's] collection are striking illustrations of such organization" (de Ville, 1828, p. 21/1835, p. 45).

For popular phrenologists such as Lorenzo Niles Fowler (Orson Squire Fowler's brother), what could "pervert" amativeness was whatever misrepresents "human nature" - or rather: chaste living. It included such factors as "[r]eading works of romance written by persons of morbid feelings, sickly sentiments, and extravagant hopes - all containing highly wrought scenes of amatory happiness and

earthly felicity - thus exciting the animal feelings and weakening the judgment, creating a distaste for commonplace transactions, and giving false and imperfect ideas of human nature" (1853, p. 83). Another factor is "[a]ttending theatres and other similar places of amusement, whose principal attractions are, unnatural and far-fetched representations of scenes overloaded with "love," in sentiment and in action, the most absurd, because unreal" (*ibid.*).

For Spurzheim,

Amativeness, whilst it is the basis of every amorous character, is modified in its mode of seeking satisfaction by its combination with different other powers. Amativeness, in union with strong moral and religious feelings, will dispose to early marriage; the individual thus endowed may see one wife after another sink into the grave, but after the loss of each he will soon take another, and always comport himself according to the laws of propriety. But amativeness, without much of the former feelings, will be apt to lead to libertinage ["libertinism", in the 2nd American edition of 1833]. (Spurzheim, 1826, p. 180)

Although this hint was lost on many followers, by the mid-1820s Spurzheim thus already substantially qualified the relation between organ size and abuse of its noble functions, and significantly complicated the relation between psychic functioning on the one hand and criminal or immoral behavior on the other (see especially the section entitled "On the difficulty of judging others" in Spurzheim, 1825b, pp. 164-168).

Most phrenologists explained crimes as actions symptomatic of faulty indulgence of the canon of "affective faculties", not as reflecting inborn preferential tastes. Accordingly, "[a]dultery and incest are not peculiar faculties, they are abuses of the amative propensity" (Spurzheim, 1825a, p. 170). "Disorders" of amativeness included "[f]ornication, adultery, incest, and other illegitimate modes of satisfaction" (Spurzheim, 1832, p. 49/1833, p. 55). Some phrenologists greatly simplified matters, however: "Libertinism is the consequence of over activity of Amativeness, and theft of Acquisitiveness" (Combe, 1830, p. 268). Fowler later ventured that "[t]he incestuous propensity seems to be hereditary" (1843, p. 526), but his one case study of multi-generational incest did not allow a connection to the organ of amativeness. (Of note here, "incestuous propensity" seems never to have been considered a perversion of the putative organ and other "animal propensity" of *philoprogenitiveness*, or love of offspring.)

Observations on both adult sex offenders and children presenting with what in today's parlance would be "sexual behavior problems" were taken to confirm phrenological theory. In 1831, the writer of a letter to the editor of *The Lancet* discusses a man committed to jail on the charge of rape of two children. He hanged himself while in jail. Dissection of his brain "à la Gall and Spurzheim" showed that "the vessels of the cerebellum were injected with florid blood, and which I [the author] had no doubt had existed prior to his death, and might be deemed some proof of the diseased and over-excited state of the amative organ" (Levison, 1831, p. 50). Levison also reports finding an adult-sized cerebellum in a four-year-old girl "who exhibited strong symptoms of the amative propensity" (p. 50). These and other observations would confirm that the seat of the amative organ was the cerebellum. Other pediatric case reports reinforced this reading:

At Paris, I have seen the boy of a mulatto, under three years of age, who assaulted not only little girls but women, and attacked them with audacity and determination to

satisfy his desires. He experienced in his external organs, which were not prematurely developed, but which presented only the dimensions proportionate to his age, more than momentary erections. As he was surrounded by girls who permitted him to satisfy his desires as an amusement to themselves, he died of consumption before having attained the end of his fourth year. His cerebellum was developed in an extraordinary degree, while the remaining parts of his head were not larger than is usual at his age. (Gall in Gall et al., 1838, p. 22. The original source is Gall, 1818, pp. 95-96, cf. p. 132)

During the 1830s, some more forensically oriented American phrenologists begin to speak of Amativeness as the organic crux of not only sex crimes but also of the specific compulsive sexual tastes (especially for girls) considered to be their motive. American phrenologist W. Byrd Powell mentioned a man, George Kennedy, hanged for rape of a 10-year-old girl, whose skull he examined in May 1837. According to a memorandum Kennedy, while standing on the drop with the rope about his neck, confessed that "his greatest desire through life was such an intercourse with female children" (1840, p. 164). Powell returned to the case in an 1864 article discussing craniological similarities of at least five men (three executed, "several" incarcerated) said to have had "an intemperate desire for commerce with female children" (1864, p. 6). This empirical basis confirmed Powell's earlier impression that just as "inveterate masturbators", though in contrast to nymphomaniacs, such men turned out to have underdeveloped "organs of animal sensibility" and overdeveloped "amatory organs" - the latter conventionally located at the center of the cerebellum.

Half a dozen of cases of aberrant "erotic age preference" was seemingly the most phrenologists ever managed to get together for comparison. Although "indulgence" or "abuse" of an "animal" propensity would seem to be determined by mitigating factors such as faulty upbringing or (eventually) genetics, implications of phrenological consultancy for criminal capacity were considered as minimal as phrenologists' differentiations between sex offenders or between sex crimes. To many phrenologists, despite Spurzheim's caution in judging "others", the sex offender was still a libertine fully guilty of his libertinism. This is in agreement with late nineteenth century, and even today's, forensic attitudes toward flagship "paraphilias" such as pedophilia. Fowler's widely read phrenological texts spell out a damning logic:

The strength of the depraved propensities is in proportion to their indulgence. His [the offender's] guilt is also in proportion to the same indulgence.... It follows then, that very large [organs of] Destructiveness, Acquisitiveness, Secretiveness, Amativeness, &c. so far from excusing the murderer, the thief, the hypocrite, the libertine, &c. are only *physical witnesses of their guilt*. (Fowler, 1835, p. 42, italics in original; cf. Fowler, 1840, p. 388)

The "perversion" of mentioned faculties, authors explain, depends entirely on their faulty education, training, and exercise (Fowler & Fowler, 1836, pp. 60-61; Fowler's incest heritability argument postdates these texts). Where claims of innateness are cited to have catalyzed emancipation of "the invert" (the "Urning", the "homosexual"), neurology has never exculpated the pervert; if anything it was used to consolidate, indeed confirm, his guilt.

In virtually no author's work the crude phrenological idea of what today is colloquially called *sexual development* (namely the growth of the cerebellum from "inconsiderable" up until puberty to voluminous at age 25) allowed a more substantial theorizing of the etiology of perversions than

eighteenth century pathogenic theories of onanism (which emphasized habitual "abuse"). At times, authors refrain from discussing "unnatural" stimuli altogether, which frequently leads to conflation of hypersexuality or sexual obsession with illicit modes of satisfaction. According to Combe, for instance, all "faculties may be excited to activity, independently of the will, by the presentiment of the external objects fitted by nature to excite them. When an obscene object is presented, the faculty of amateness starts into spontaneous activity, and produces the feeling dependent on its constitution" (1822, p. 280). Any "obscenity", furthermore, would naturally interest those marked with robust amateness (p. 294). Insanity could arise from overdeveloped organs, including that of amateness (p. 424). Being one of the most active powers of the mind and the largest organ, amateness would in fact be the most apt to produce insanity (a point stressed by Spurzheim), particularly in youth "at which age derangements from this propensity usually occur" (p. 430). But what Spurzheim and Combe seemed to have had in mind here was any morally questionable indulgence of the sexual impulse *per se*, not the well-known "anomalous activity preferences" or "anomalous target preferences" listed in the *DSM-5*.

Discussion

Phrenology was called a "pseudo-science" already in the 1820s (famously by French physiologist François Magendie: 1829, p. 113n). Two centuries after its earliest texts, it seems less interesting to judge the scientific merits of phrenology (discerning "localized functions") than to interpret its place in the cultural history of sexuality. I will indulge this intuition below at the risk of alienating professionals whose preferred approach to sex offending and to "paraphilia" is one informed by narrowly empirical and, shall I say, phalloskeptic ("phalloplesmographic") vantage points.

Phrenology must be read against the wider nineteenth century, circum-Atlantic tendency to medicalize morality, which entailed the transfiguration of sinners and libertines into degenerates and cases of moral insanity (Rimke & Hunt, 2002). Interpreting this tendency requires locating it in wider (if local) debates about moral regulation and anxieties over moral decline (Nye, 1984). Gall's concepts of gender were marked by how he "used his idea of science to make apparently divine principles comprehensible in a physiological language" (Cornel, 2014, p. 390). The phrenological concept of amateness, comparably, has been duly characterized as giving a scientific face to distinctly American and still importantly God-sanctioned middle-class arbitrations between chaste living and all the "excessive" and "perverted" forms its erosion could take, especially masturbation and infidelity (Connolly, 2014, pp. 124-136). Christian virtues thus became cerebral "propensities" subjected to a diagnostic tropology of inheritance, perversion, deficiency, abuse, and excess (Fowler, 1858, pp. 148-152). Their "recognition" resulted in a modern neurological theory of the moral faculties, including an early pathophysiological discourse on "sexual development" hardly more sophisticated than eighteenth century moral pathologies of onanism. Amateness ("sexuality") thus became figured as a developmental physiological function at risk of *underdevelopment*, *overdevelopment* and *perversion*: purportedly naturalistic conditions that remain at all times suspended between pure conjecture and compelling metaphor, and only ever indicative of moral failing. The concept's applications to sex offending remained rare but virtually always condemnatory. They were superseded by various theories about "acquired pederasty" (advanced by Johann Ludwig Casper in the 1850s), the "third sex" theory of homosexuality espoused by Karl Heinrich Ulrichs in the early 1860s (see Kennedy, 1997), as well as late nineteenth century "neuropathic" and degenerationist theories of sexual inversion and perversion. Here, unchangingly, legal prohibition and moral denouncement dictated neurological speculation.

Where any empiricist today will claim to have advanced well beyond phrenology, the conclusion of a cultural historical appreciation of primary sources cannot be that simple. It may be ventured that today's concept of "paraphilic disorder" extends an ancient tendency of imagining criminal diathesis

as a defect - a rupture in the natural order of things - and of locating the origin of moral transgression in the brain of the (potential) offender. It is a conclusion begging to be confirmed. Yet even though in the end all things psychological can be shown to be neurologically mediated (whether or not by definition), evidence for the "paraphilia" case remains fundamentally problematic given that nonclinical or nonreferred groups are not being studied due to factors that are essentially cultural (stigmatization, mandatory reporting laws, and so on).

Regardless, if after homosexuality's depsychediatricization today's sex criminal is still cited to be "sick in the head" this is still primarily by way of definition and cultural commonplace. The "paraphile" is sick precisely in the sense that a sex offence victim is "maimed", "scarred", "damaged", "traumatized", "dead inside", "murdered", and so on, *irrespective* of her or his actual coping status, or opinions, or neurology. The neurologist is just one of many professionals who rarely refrain from confirming this cultural intuition, certainly when confronted by alarming cases, or cameras, or both. Invocation of the neurologist at the occasion, or in the anticipation, of sex crime continues to be cued by essentially one factor that has little to do with the psyche, or with the brain, or with scientific rigor: the law that *defines* the crime and coerces offenders into the position of a research subject. Sex offenders' purported neurology has never exculpated them in the courtroom, nor so-called paraphiles' in the public eye. He (I am using gender advisedly here) who does, or *would*, transgress against decency, in other words, is a beast to its material core - but certainly not one who therefore avoids punishment. It seems that society, after two centuries, is still having it both ways in looking past the person of the offender for their surely broken brains ("white matter deficiencies", reportedly) - while returning to them with full force when there is punishment to inflict. With a sex offence, something is *deeply wrong* in a way that psychiatrists and neurologists can only hope to reconfirm again and again.

In keeping with this culture of reconfirmation, "sex offender treatment" in the U.S. translates rather easily to indefinite incarceration (a state of affairs recently ruled unconstitutional in the state of Minnesota: Davey, 2015). What can history tell one about this translation? Historians point out that "The status of homosexuality is a political question, representing a historically rooted, socially determined choice regarding the ends of human sexuality. It requires a political analysis" (Bayer, 1981, p. 5). This analysis has shown that when sex laws become untenable, the idea of the correspondingly rehabilitated criminal's sickness quickly becomes embarrassing. Going forward from such an occasion, a newly calibrated sense of tolerance and pride can be seen inspiring new laws outlawing or boycotting any remaining psychiatric insinuations. Recent U.S. bans on "conversion therapy" for "homosexuals" are a case in point. Culture here can be seen patting itself on the back both for advancing beyond the homophobic backwardness of the (even today, many) countries still criminalizing and psychiatricizing an inborn disposition, and for being *scientifically* accurate in doing so. If the case of homosexuality has a story to tell to contemporary forensic sexologists it is this: science is only ever the lingua franca of a moral commonplace. Where conditions undergirding popular opinion turn 180 degrees, scientists can be seen turning 180 degrees the same day and convert a sick abnormality into a healthy ("euphilic") variant. (To suggest that scientists are the major architects of such conditions of change does not invalidate the thesis that science, *in sexualibus*, is only ever the lingua franca of a moral commonplace.)

Observing an acute agreement of moral climate and science is not difficult in contexts where nosology does not reflect the needs, interest and identities of patients but societal ones deeply hostile to those of people who only become patients as a corollary of that hostility. In phrenology, especially American phrenology, one finds science securely and transparently on the side of a Victorian and Christian morality. That today we find science securely on the side of a neo-Victorian punitive legal culture is an outcome of cultural history, not science. This history stipulates a methodological, as part of a much wider, confusion of criminals on the one hand and on the other,

those whose very existence is taken to be an offence against governing ideas of sexual decency. Whatever "relevant" findings will be reported by neurologists in this context, society has already been projecting them for millennia. That this would be a case of hypothesis confirmed by data is always truer than reflected in neurologists' life time achievement awards.

Conclusion

How then to understand today's neurology of paraphilia in the light of the phrenological trope of perverted amateness? Considered historically, nineteenth century's phrenology may have been easing a new liberal consciousness the dawning of which was coeval with a still far from complete weaning from scriptural guidance on what is natural, and what unnatural, to Man. Communal disparagement of erotic investments judged incompatible with the nuclear family and with the modern bourgeois constructions of the society of self-governing individuals that family was to nurture, always seemed more dignified and more effective when construed as, if not a divine Law, a science-dictated caring for the neurologically or neuro-cognitively alienated. It was to the liberal, nineteenth century, inquiring mind that sins increasingly occurred as distinct departures from nature (however still largely a nature as God intended). And it was in the nineteenth century that "sexual perversions" were first specified, classified, and theorized.

This had distinct, regulatory implications (Foucault, 1976). In any case, the more neurological a sex offence could be made to seem, the less it would have to appear as a disloyalty to arguable social conventions. *Treatment* sounds more civil, sophisticated, and necessary than *punishment* - which becomes all the more relevant where punishment has come to risk being widely considered as grossly disproportionate. Modern sex-forensic sciences may have been uniquely instrumental in the disavowal of guilt arising from the barely concealed (and thus unstable) scapegoat dynamic informing the social status of any offender against naturalized sexual mores (Janssen, 2013). Neurological etiologies have had the concomitant capacity to rekindle ancient but increasingly arguable taboos (such as incest taboos: see e.g. Connolly, 2014), to preempt ethical discussions, naturalize legal conventions, honor psychiatric categories, and locate "disorder" deeply inside the opaque mind of non-conformists in one factual sweep. Whatever their empirical status, the work of these etiologies is ultimately and irreducibly regulatory. It invites a kind of cultural or anthropological introspection precisely evaded when looking at brains - or bumps on skulls.

Notes

[1] For what they are worth, today's attempts to embellish the normality of homosexuality with a neurological accreditation are said to be "quite tentative" (Cantor, 2012, p. 244).

[2] When discussing concepts of sexual perversion, of obvious medical historical interest is how sexual reproduction is figured in relation to notions of the sexual drive. The earliest German sources used the near-synonyms *Organ des Geschlechtstriebes* (Walther, 1802a, p. 133), *Organ des Begattungstriebes* (Walther, 1802b, p. 52), *Organ des Zeugungskraft* or *Zeugungstriebes* ("A student of Gall", 1803, p. 47; Gall, 1829, pp. 147-183), *Organ des Geschlechtsliebe* (Gall, 1806, p. 309), and *Organ des Fortpflanzungstriebes* (Blöde, 1806, pp. 62-67) interchangeably. An 1804 Dutch source calls it *werktuig voor de teeldrift* or "instrument for the reproductive drive" (Vrolik, 1804, p. 24). In French, Gall's preferred term was *organe de l'instinct de la propagation* (Gall, 1818, pp. 85-138). Amateness is Spurzheim's term, attested first in an 1814 reference to his 1815 book. Illustrative of the later American appropriation of that term, O.S. Fowler claimed that "love, gender, amateness, sexuality, parental capacity, manhood, womanhood, interblending, &c., all emanate from one primal faculty of the mind, and are virtually synonymous terms; each proportionate to all,

and all to each; and all admeasured by the relative size and other conditions of the phrenological organ of Amativeness" (1870, p. 75).

[3] As Lynch notes, a biography of Macnish provides a clue that he himself might have had boy-loving tendencies.

References

1. A Student of Gall. (1803). *Dr. Galls Darstellung des Gehirns als Organs der Seelenfähigkeiten und Gemüthseigenschaften*. Vienna & Liepzig, Germany: J.B. Schiegg.
2. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
3. Anon. (1837). Sketch of the character and cerebral development of the French criminals Lacenaire and Avril, recently executed in Paris. *The Phrenological Journal and Miscellany*, 10(LI), 393-400.
4. Bayer, R. (1981). *Homosexuality and American psychiatry*. New York, NY: Basic Books.
5. Blöde, K.A. (1806). *D. F.J. Gall's Lehre über die Verrichtungen des Gehirns*. 2nd ed. Dresden, Germany: Arnold.
6. Boardman, A. (1847). *A defence of phrenology*. New York, NY: E. Kearny.
7. Boswell, J. (1980). *Christianity, Social Tolerance, and Homosexuality: Gay People in Western Europe from the Beginning of the Christian Era to the Fourteenth Century*. Chicago, IL: University of Chicago Press.
8. Byrd Powell, W. (1840). Organ of muscular motion. *The American Phrenological Journal and Miscellany*, 2, 163-166.
9. Byrd Powell, W. (1864). The organs of sensation and motion discovered. *The Chicago Medical Examiner*, 5(1), 1-14.
10. Caldwell, C. (1832). New views of penitentiary discipline and moral education and reformation of criminals. *The Phrenological Journal*, 7(31), 385-410.
11. Cantor, J.M. (2012). Is homosexuality a paraphilia? The evidence for and against. *Archives of Sexual Behavior*, 41(1), 237-247. doi:10.1007/s10508-012-9900-3
12. Clarke, H. (1835). *Christian phrenology*. Dundee, UK: Advertiser Office.
13. Combe, G. (1822). *Essays on phrenology*. Philadelphia: H.C. Carey & I. Lea.
14. Combe, G. (1830). *Essays on phrenology*. 3rd ed. Edinburgh: John Anderson.
15. Connolly, B. (2014). *Domestic intimacies: Incest and the liberal subject in nineteenth-century America*. Philadelphia, PA: University of Pennsylvania Press.
16. Cornel, T. (2014). Matters of sex and gender in F.J. Gall's Organology: A primary approach. *Journal of the History of the Neurosciences*, 23(4), 377-394. doi: 10.1080/0964704X.2014.885097
17. Davey, M. (2015, June 17). Minnesota's holding of sex offenders after prison is ruled unconstitutional. *The New York Times*. Retrieved from www.nytimes.com
18. De Ville, J. (1828). *Outlines of phrenology, as an accompaniment to the phrenological bust*. London, England: Author. (New ed.: 1835)
19. Dyshniku, F., Murray, M.E. Fazio, R.L., Lykins, A.D., & Cantor, J.M. (2015). Minor physical anomalies as a window into the prenatal origins of pedophilia *Archives of Sexual Behavior*. doi:10.1007/s10508-015-0564-7
20. Foucault, M. (1976). *Histoire de la sexualité. Vol.1: La volonté de savoir*. Paris, France: Gallimard.
21. Fowler, L.N. (1853). *Marriage: Its history and ceremonies*. 22nd ed. New York, NY: Fowlers & Wells.
22. Fowler, O.S. (1835). *Phrenological controversy. Answer to Vindex, etc*. Baltimore, MD: John W. Woods.

23. Fowler, O.S. (1840). *Fowler's practical phrenology*. New York, NY: Author.
24. Fowler, O.S. (1843). *The American Phrenological Journal and Miscellany*, Vol. 5. New York, NY: Fowler's Phrenological Press.
25. Fowler, O.S. (1850). *Amativeness, or, Evils and remedies of excessive and perverted sexuality*. 13th ed. New York, NY: Fowlers & Wells.
26. Fowler, O.S. (1852). *Hereditary descent: Its laws and facts applied to human improvement*. New York, NY: Fowlers and Wells.
27. Fowler, O.S. (1859). *Matrimony: As taught by phrenology and physiology*. New York, NY: Author.
28. Fowler, O.S. (1870). *Sexual science; Or manhood, womanhood, and their mutual interrelations; Love, its laws, power, etc. ... as taught by phrenology*. Philadelphia, PA [etc.]: National Publishing Company.
29. Fowler, O.S. (1883). *Private lectures on perfect men, women and children, in happy families*. New York, NY: Author.
30. Fowler, O.S., & Fowler, L.N. (1836). *Phrenology proved, illustrated and applied*. New York, NY: W.H. Colyer.
31. Fowler, O.S., & Fowler, L.N. (1859). *New Illustrated Self-Instructor in Phrenology and Physiology*. New York, NY: Fowler and Wells.
32. Gall, F.J. (1806). *Beantwortung der Ackermannschen Beurtheilung der Gall'schen Hirn-Schedel- und Organen-Lehre vom Gesichtspuncte der Erfahrung: Herausgegeben von einigen Schülern des Hrn. Dr. Gall, und von ihm selbst berichtet*. Halle, Germany: Neue Societäts- und Buch- und Kunsthandlung.
33. Gall, F.J. (1818). *Anatomie et physiologie du système nerveux en général, et du cerveau en particulier: Avec des observations sur la possibilité de reconnoître plusieurs dispositions intellectuelles et morales de l'homme et des animaux par la configuration de leurs têtes*. Vol. 3. Paris, France: Librairie Grecque-Latine-Allemande.
34. Gall, F.J. (1829). *Neue Physiologie des Gehirns und Psychologie des menschlichen Geistes*. Nuremburg, Germany: Leuchs & Co.
35. Gall, F.J., Vimont, J., & Broussais, F.J.V.; Combe, A. (trans.). (1838). *On the functions of the cerebellum*. London, England: Maclachlan & Stewart.
36. Green, R. (1972). Neuroendocrine and neuroanatomic correlates of atypical sexuality. *The Chemistry of Mood, Motivation, and Memory Advances in Behavioral Biology*, 4, 27-40. doi:10.1007/978-1-4684-3060-8_2
37. Howe, S.G. (1848). *Report made to the Legislature of Massachusetts, upon idiocy*. Boston, MA: Coolidge & Wiley.
38. Janssen, D.F. (2013). The stakes of post-oedipal child-loving. *Humanicus*, 8, 1-30.
39. Janssen, D.F. (2014). "Gerontophilia": A forensic archaism. *Sexual Offender Treatment*, 9(1). Retrieved from www.sexual-offender-treatment.org/130.html
40. Janssen, D.F. (2015). "Chronophilia": Entries of erotic age preference into descriptive psychopathology. *Medical History*, 59(4), 575-598.
41. Kennedy, H. (1997). Karl Heinrich Ulrichs: First theorist of homosexuality. In V. Rosario (Ed.), *Science and homosexualities* (pp. 26-45). New York, NY: Routledge.
42. Lancaster, R.N. (2011). *Sex panic and the punitive state*. Berkeley, CA: University of California Press.
43. Lantéri-Laura, G. (1979). *Lecture des perversions. Histoire de leur appropriation médicale*. Paris, France: Masson.
44. Levison, J.L. (1831). The sexual function of the cerebellum. *The Lancet* (London), 1(Oct. 8), 49-50.
45. Lynch, M. (1985). "Here is adhesiveness": From friendship to homosexuality. *Victorian Studies*, 29(1), 67-96.

46. Macklis, R.M., & Macklis, J.D. (1992). Historical and phrenologic reflections on the nonmotor functions of the cerebellum: Love under the tent? *Neurology*, 42, 928-932.
47. Magendie, F. (1829). *An elementary compendium of physiology*. 3rd ed. Trans. E. Milligan. Edinburgh: John Carfrae & Son.
48. Moll, A. (1898). *Untersuchungen über die Libido sexualis*. Berlin, Germany: Kornfeld.
49. Mortimer, G. (pseud. of W.M. Gallichan). (1898). *Chapters on human love*. London, England: The University Press.
50. National Center for Prosecution of Child Abuse/National District Attorneys Association (NCPCA/NDAA). (2009, March). *Voyeurism statutes 2009*. Retrieved from www.ndaa.org/pdf/voyeurism_statutes_mar_09.pdf
51. Nye, R.A. (1984). *Crime, madness, and politics in modern France: The medical concept of national decline*. Princeton, NJ: Princeton University Press.
52. Olmsted Stanton, M. (1890). *A system of practical and scientific physiognomy*. Philadelphia, PA: F.A. Davis.
53. Rimke, H., & Hunt, A. (2002). From sinners to degenerates: The medicalization of morality in the 19th century. *History of the Human Sciences*, 15(1), 59-88. doi:10.1177/0952695102015001073
54. Ryan, M. (1839). *Prostitution in London, with a comparative view of that of Paris and New York, with an account of the nature and treatment of the various diseases, caused by the abuses of the reproductive function*. London, England: H. Bailliere.
55. Sarracino, C. (1990). Dyspeptic amours, petty adhesiveness, and Whitman's ideal of personal relations. *Walt Whitman Quarterly Review*, 8(Fall), 76-91.
56. Shortland, M. (1987). Courting the cerebellum: Early organological and phrenological views of sexuality. *The British Journal for the History of Science*, 20(2), 173-199. doi: 10.1017/S0007087400023736
57. Smart, A. (1835). On the application of phrenology in the formation of marriages. *Annals of Phrenology*, 2(3), 335-349. (Reprinted in *The American Phrenological Journal and Miscellany*, 2(7) [1839], 298-309.)
58. Spurzheim, J.G. (1815). *The physiognomical system of drs. Gall and Spurzheim*. London, England: Baldwin, Cradock, and Joy.
59. Spurzheim, J.G. (1821). *A view of the elementary principles of education: Founded on the study of the nature of man*. Edinburgh: Archd. Constable & Company.
60. Spurzheim, J.G. (1825a). *Phrenology: Or, the doctrine of the mind*. 3rd ed. London, England: Treuttel, Wurtz & Richter.
61. Spurzheim, J.G. (1825b). *A view of the philosophical principles of phrenology*. 3rd ed. London, England: Charles Knight.
62. Spurzheim, J.G. (1826). *Phrenology, in connection with the study of physiognomy. Part I. Characters*. London, England: Truettel, Wurtz & Richter. (2nd American ed: 1833)
63. Spurzheim, J.G. (1832/1833). *Phrenology: Or, the doctrine of the mind. Vol. II: Philosophical part. 1st/2nd American ed*. Boston, MA: Marsh, Capen & Lyon.
64. Tenbergen, G., Wittfoth, M., Frieling, H., Ponseti, J., Walter, M. & Kruger, T.H.C. (2015). The neurobiology and psychology of pedophilia: Recent advances and challenges. *Frontiers in Human Neuroscience*, 9, 344. doi:10.3389/fnhum.2015.00344
65. Vago, A.L. (1866). *Orthodox phrenology*. London, England: Author. (2nd ed. published 1871. London, England: Simpkin, Marshall & Co.)
66. Verplaetse, J. (2009). *Localising the moral sense: Neuroscience and the search for the cerebral seat of morality, 1800-1930*. New York, NY: Springer.
67. Vrolik, G. (1804). *Het leerstelsel van Joseph Gall, geschest [sic] en met eigene waarnemingen opgehelderd*. Amsterdam, The Netherlands: Holtrop.
68. Walther, J.A. (1802a). *Critische Darstellung der Gallschen anatomisch-physiologischen Untersuchungen des Gehirn- und Schädelbaues*. Zürich, Switzerland: Ziegler.

69. Walther, J.A. (1802b). Darstellung der neuen, auf Untersuchungen der Verrichtungen des Gehirns gegründeten, Theorie der Physiognomik des Hn. Dr. Gall in Wien. 3rd ed. Vienna, Austria: Verlag des Landes-Industrie-Comptoirs.
70. Williams, C.A. (2009). Roman homosexuality. 2nd ed. Oxford: Oxford University Press.

Author address

Diederik F. Janssen, MD
Independent Researcher
Nijmegen, The Netherlands