The Traffic in Medical Ideas: Popular Medical Texts as German Imports and American Imprints

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There was a good-sized audience for medical self-help texts in the German communities in North America during the eighteenth century.[1] Translations of English-language texts into German were the exception rather than the rule: a translation of John Tennent's *Everyman His Own Doctor* competed with a plentiful supply of German and Swiss almanacs containing medical advice. Almanacs were a substantial component of the output of the press of both father and son Christopher Sauer and probably took the German slice of the market from Benjamin Franklin's *Poor Richard's Almanac*.[2] The popularity and continuous publication of those almanacs have tended to obscure the demand for more learned texts among a German population that grew considerably in size, wealth, and geographic dispersion in the three decades between 1745 and the Revolution.[3]

The Upper End of the Medical Market

Of particular interest is Christian Friedrich Richter's *Höchst-nöthige Erkenntnis des Menschen, sonderlich nach dem Leibe und natürlichen Leben*.[4] Famous in Protestant Europe as a product of the highly respected Francke Foundations Orphanage at Halle, the book reached North America in a number of ways. Some came in the baggage of German practitioners, and some came through the general distribution network of the *Hallesche Medikamenten-Expedition* attached to the Orphanage Foundations. The flyleaf of a 1737 edition bears the name of a German physician in South Carolina.[5] The administrative correspondence of the Halle Orphanage pharmaceutical business refers throughout the eighteenth century to trade through Holland with the West Indies, which in colonial trading terms included North America. Finally, a well-documented source of imports was through Pietist Lutheran clergy and their associates—Reformed and Anglican clergy practicing medicine and other medical practitioners—who assumed guidance of many German Lutheran congregations in Georgia, Pennsylvania, New Jersey, Virginia, Maryland, and New York. The text was shipped to and used in the Georgia Salzburger settlement and its neighboring communities from 1735 onwards.[6] A legacy destined for the Georgia settlement by a European donor was paid off in the early 1800s in part by Halle medicines and texts, both of which seem to have enjoyed particular favor by housewives and others attending women in labor.[7] In Pennsylvania and

New Jersey, direct imports of books and medications from Halle began in the 1740s through the head of the German Lutheran community in North America, Heinrich Melchior Mühlenberg, and his wife Anna Maria, a daughter of the famous Indian scout and influential Pennsylvania political figure Conrad Weiser. The trade continued through the network of Lutheran ministers until the early 1800s.[8]

Orders for the original C. F. Richter text declined after the 1750s but were replaced by the more compact revision by one of his successors, the physician David Samuel von Madai. The condensed edition reduced the original by more than half and, reflecting the geographic range of the pharmaceutical trade of the Orphanage, made the text more widely accessible by translations into Latin and many European languages, including French and Dutch.[9] American orders after 1750 were mainly for the shorter volume, in Latin and French as well as in German, indicating demand outside German-language communities. Orders for the texts by central European medical practitioners seem to have peaked at about the time of the Revolution, which interrupted the flow of European imports and ended the partial customs exemption enjoyed by the Halle Pietists as a missionary and charitable enterprise.[10] Approximately three hundred copies of the Richter and the Madai texts had been sold separately and as part of a set of physic chests through that network by the 1770s. Even after the War of Independence, book imports from Halle did not cease. The more affluent settlers began to acquire natural history and related works, and the shorter medical text continued to be sold until well into the nineteenth century.

The original Richter work combined a traditional instructional approach with appeals to the Christian reader and promotions for the many medications produced at the Halle Orphanage. It began with a treatise on anatomy and physiology, body and mental functions, and states and causes of disease, leading to a large therapeutic section that served mainly as a vehicle to provide indications and dosages for the use of the orphanage medications. All sections, however, were prefaced by lengthy addresses to the Christian reader that invoked the goals of Halle Pietism and its work of universal reform. The author explained that he and his associates had written the text primarily to impress upon their audience, in the familiar terms of biblical reference, that while God reigned over health and illness, both physicians and patients had the divinely-inspired duty to preserve, maintain, and restore health.

> [S]uch are the body and its members, being equipped with such form and structure as enable the soul to fulfill [His] final purpose. . . . But what shall I tell you, oh Reader, of your own body and of how it and your material nature is abused. . . . For it is abundantly clear that *reason* [emphasis in original] is much used against the spirit of the Lord, and while your reason is designed to understand His Being from His works, you perversely deny Him.[11]

That invocation of the soul as the prime mover of the body bears a distinctly Stahlian imprint and was far from inviting a passive acceptance of illness. In many ways, therefore, the *Höchst-nöthige Erkenntnis des Menschen* (The Most Necessary Knowledge of Man) was the perfect vernacular text for the circle of evangelical and other clergy and educated

lay people who brought with them to North America some acquaintance with European medical knowledge and its academic and still partly Latin vocabulary. Richter's nosology and other nomenclature were given both in the traditional Latin and in the German vernacular, providing access to the lay reader while remaining in an accepted professional framework. That the work was fully recognized by the contemporary academic community is shown by its inclusion in the *Deutsche Acta Eruditorum* of 1713.[12]

The intended audience was addressed as "*ungelehrt*" (i.e., without scholarly knowledge) in the rhetorical tradition of Pietist and Puritan reform. That, and the sophisticated and carefully reasoned rationale for the development of the physic chests accompanying the text make it clear that the *Höchst-nöthige Erkenntnis* was an early and enduring part of the instructional genre—the *Populärmedizin*—of the eighteenth century. That genre underwent many permutations in style and level of discourse but changed relatively little in emphasis on specific disease patterns and patient groups defined by age and gender. The *Populärmedizin* provided not only a full course on the nature of the body in its normal and its pathological state but also a therapeutic framework and specific counsel on remedies and cures. The Richter text was still largely oriented to the early modern period and its framework of the humors and their balance, but it belongs to the same genre as William Buchan's *Domestic Medicine* (first published in America in 1772), Samuel Auguste Tissot's *Advice to the People in General* (first published in America in 1771), and subsequent nineteenth-century texts directed at a lay audience by physicians.[13] Those texts were generally shorn of religious content and were usually not constrained by insistence on a set of proprietary medications. An exception was John Wesley's *Primitive Physick,* which belongs almost entirely to the anti-academic evangelical tradition.[14]

The Richter text (and its successor, the Madai manual), therefore, was neither a religious treatise on health directed at the uneducated poor nor a *Pharmacopoeia pauperum,* despite its origin in an eighteenth-century charitable setting.[15] Its relative popularity among segments of the North American colonial German population indicates that assumptions as to the generally humble status of that group may bear some revision. Several recent studies have pointed out considerable and increasing social stratification,[16] which our evidence suggests extended to the use of medical resources.

Even less does it belong among the collections of recipes, secreta, and magic in the folk tradition that had come down in myriad form from the Late Middle Ages through the early modern period. In fact, one of the major objectives of the religious reform movements of seventeenth- and eighteenth-century Europe—of which the German Pietism of Philipp Jacob Spener and Gotthilf August Francke (founder of the Orphanage Foundations) is a major example—was the suppression, once and for all it was hoped, of magic, superstition, and all the traditional remnants of a folk culture that had proved resistant to the efforts of both the Reformation and Counter-Reformation.[17] Despite recent work pointing out the lack of a firm boundary between academic and folk medical texts and practice,[18] the distinction is an important one.

As argued by Wolf-Dieter Müller-

Jahncke, the tradition of astrological and magical medicine eventually moved from the learned elite and their philosophies to populations who felt little need for a cosmological framework for their medicine.[19] In North America, an entirely new print market was created through the lack of church and secular censorship after the Revolution and the lack of enforceable copyright. The common man—and many of the common women—were literate but not learned, and their need was for a range of practical guides that offered various types of traditional folk medicine and secret household recipes. The advantage lay with the printer of books in German type (Gothic or Fraktur), which was the one familiar to North American Germans who carried on the tradition of literacy that "was regarded as normal among artisans" in the early modern period.[20] The Sauer printers had a monopoly in part due to the possession of a full set of Gothic type presented by a Frankfurt printer early in the eighteenth century. The American market opened up to German printers during the 1780s and proved remarkably viable, although complete sets of Gothic type remained scarce until well beyond the end of the century. German texts increasingly appeared from American presses in Pennsylvania and Maryland.[21]

By contrast, Richter's *Höchst-nöthige Erkenntnis* and Madai's translations were never reprinted in the colonies, despite a plethora of German-American imprints after 1790 that indicated an interest in medical guides (see Table). Apparently, the wide range of early modern as well as contemporary medical and veterinarian reprints was more appealing to both the settled and new German immigrants.[22] Those traditions—and the wider and more popular spectrum of advice offered by the other texts—won out over the highly structured and specifically medical perspective of the Richter guides.

Why was the Richter not reprinted? Plagiarizing was clearly not a deterrent to Pennsylvania printers and authors, nor were copyright restrictions of significance: the Pennsylvania printers published works that had appeared in Germany even after Richter's work first appeared.[23] Mühlenberg had requested permission to set up a printing shop on the Halle model in the 1750s, but the Orphanage guarded its property jealously.[24] More important, the deliberate and almost exclusive focus of Richter and Madai on their own medications was bound to limit their appeal despite the persistence even in North America of at least some loyal customers. When American prices rose and European supplies became limited during the political and economic shifts of the Napoleonic era, the availability of the Halle medications through general trading channels decreased.[25]

The Transmission of European Folk and Lay Medicine

Thus, the majority of German-language domestic and veterinary guides printed in the Pennsylvania area after the Revolutionary War were of the folk medicine variety. One of the most popular of those, reprinted frequently from 1555 until 1699, contained the medical recipes of Alessio Piemontese's *Secreti*; a German translation was made by Johann Jacob Wecker in 1573.[26] According to William Eamon, such books belonged to the "alternative pharmaceutical tradition that bore almost no relation whatsoever to classical pharmacology."[27] The Richter recipes, although likewise "secret," were more in keeping with official pharmacopoeias and

German-Language Domestic and Veterinary Medical Imprints Published in the British North American Colonies and the United States, 1749–1820

(Not including almanacs, broadsides, and promotional literature)

Category	1730–1769	1770–1789	1790–1799	1800–1810	1810–1820
Domestic Medicine	1		3	1	
Veterinary Medicine		3	1	7	3
Combined Domestic and Veterinary Medicine			11	1	5
Female Guides			5	5	3
Handbooks			3		3
TOTALS	1	3	23	14	14

SOURCES: Karl J. R. Arndt and Reimer C. Eck, eds., *The First Century of German Language Printing in the United States of America: A Bibliography Based on the Studies of Oswald Seidensticker and Wilbur H. Oda*, 2 vols. (Göttingen: Niedersächsische Staats- und Universitätsbibliothek, 1989); David L. Cowen, "'Zum Dienst des Gemeinen Mannes, insonderheit für die Landleute': The Domestic and Veterinary Medical Books Printed in Colonial North America and the United States in the German Language," in *Orbis Pictus: Kultur-und pharmaziehistorische Studien: Festschrift für Wolfgang-Hagen Hein zum 65. Geburstag*, ed. Werner Dressendörfer and Wolf-Dieter Müller-Jahncke (Frankfurt am Main: Govi-Verlag, 1985), 60–66.

the medications traditionally to be found in pharmacies.

The output of the Pennsylvania German printers was a resurrection of the *Kunstbüchlein* and "books of secrets" of sixteenth-century Europe. Medically outstanding in that era had been Walther Hermann Ryff, author and plagiarist of forty-three books between 1538 and 1558, among them such works as *Prakticir Büchlein der Leibartzeney* (1541) and *Der ander theyl der kleynern teutschen Apoteck* (1542).[28] His *Confect Buch und Hauss Apotheck* was published no fewer than ten times between 1543 and 1610.[29] Ryff's "vulgarization" drew bitter criticism from academic medicine, but in 1569 a bookdealer at the Frankfurt Fair sold 227 copies of his *Das Handbüchlein Apollinarius*—the second most popular of the books he sold.[30] Thus, Pennsylvania Germans were reproducing and buying a type of literature that had a long tradition and popularity not only in Germany but in all of Europe. As noted, the Pennsylvania printers had little compunction about reprinting works that had appeared in the mother country.

Twenty years elapsed between the American publication of the German

translation of John Tennent's *Everyman His Own Doctor* in 1749 and the publication of the first of the domestic medical and veterinary books of German or German-American origin printed in America in the German language. Johannes Deigendesch's *Nachrichters: Oder Nützliches und aufrichtiges Ross-Arzney-Büchlein* was printed by Sauer in Germantown in 1770. A profusion of publications on veterinary medicine, domestic medicine, and female health followed, some of which—while bearing local imprints—might have been printed in Germany.[31] Altogether, at least twenty-nine different titles (in at least fifty-five issues) were published between 1770 and 1820 (see Table), and more than twenty-five new titles appeared between 1821 and 1865.[32] As Tobias Hirte pointed out in 1792, books by learned scientists and physicians were costly and difficult to come by.[33] Given the paucity and inaccessibility of trained physicians,[34] those publications were said to fill a pressing need. Each housewife became a "*Doctorin,*" lamented one anonymous author, "and everything superstitious that has occurred to God or man is sought out, used, and brings the patients more quickly to grief."[35]

Those publications represent an interesting facet of the transatlantic migration of European civilization. Like the great mass of immigrants, the Germans who settled in the mid-Atlantic region were commoners and rural folk—*gemeine Männer und Frauen* and *Bauern*—who had ventured from home as much for economic reasons as for religious ones. They brought with them traditions, superstitions, and credulities that went back several centuries.[36] Deigendesch's *Nachrichters,* for example, was published four times in Pennsylvania between 1770 and 1823. It had first appeared in Freiburg in 1716 and was printed in Germany and Switzerland at least seven times thereafter, the last in 1857.[37] *Der barmherzige Samariter* by Eliam Baynon (Beynon) was published in Hannover, Pennsylvania, in 1798; it was first published in Germany in 1670 and had no fewer than twelve issues in German, French, and Danish between 1670 and 1702.[38] The early issues of the *Kurzgefasstes Arzney-Büchlein*—published in Ephrata in 1791, 1792, and 1793—carried the imprint *"Wien gedruckt, in Ephrata nachgedruckt"*; it has been traced to one published in Dresden in 1687.[39] The oft-reprinted and oft-translated *Der lange verborgene Freund* by Johann Hohman (Hohmann), which first appeared in Reading in 1819, copied long sections from a *Romanusbüchlein* published in Graz in Styria thirty-one years earlier.[40]

The female guides, small works in gynecology and midwifery, also display a lengthy ancestry. They can probably be traced back to a work by Henricus de Saxonia, a student of the celebrated medieval philosopher and theologian Albertus Magnus of Cologne. Called *De secretis mulierum,* it appeared in print at the end of the fifteenth century, attributed to Albertus Magnus but containing commentary by Henricus.[41] A German version by Ryff appeared in 1549.[42] The American versions appeared under four titles: two specifically claimed on their title pages that they included the secrets of Aristotle and Albertus Magnus,[43] while the other two were obviously similar in text. Altogether, at least ten or twelve issues were published between 1796 and 1822.[44] A similar work, attributed only to Aristotle, with titles like *Aristotle's Master Piece,* appeared first in England at the end of the seventeenth century. It went through thirty-two American editions in English between

1766 and 1831.[45] A possibly English influence on the German-American publications is indicated by the fact that several issues of the *Kurzgefasstes Weiber-Büchlein,* which first appeared in 1798, included passages purportedly from Culpeper.[46]

As indicated earlier, the veterinary and domestic medicine publications were folk medicine and, unlike the Richter-Madai works, were specifically directed to the common man. Whereas the title page of a 1705 text by Richter suggested that even the unlearned could learn to recognize what good health is (*"auch Ungelehrter erkennen kann was die Gesundheit ist"*),[47] the Pennsylvania imprints indicated that they were "especially for the use of the countryman,"[48] "for the farm people,"[49] "for the young countryman,"[50] and for our "poor, forsaken and needy fellow creatures."[51]

Again, where Richter titled his book the "Necessary Understanding," Baynon's 1789 work was called "Compassionate Samaritan; or Friend and Brotherly Advice" (*Barmherzige Samariter),* Hirte called his 1793 book "Friend in Need" (*Der Freund in der Noth*), and Hohman called his 1819 book "Long-Hidden Friend, or True and Christian Instruction" (*Der lange verborgene Freund oder: Getreuer und Christlicher Unterricht).* The ad hominem character of the Pennsylvania imprints is apparent. Although they recognized the role of God and of nature, they showed little interest in etiology and frequently attributed disease to bewitchment, enchantment, or violation of taboos. Some authors advised that horehound, artemisia, red garlic, and asafetida bound together and buried under the doorsill could ward off an avenging witch or enchanter.[52] Others warned that sties could result from defecation along the roadside.[53]

Given the Old World origins of the Pennsylvania books, the replication of folk medicine is not unexpected. They were essentially how-to books, although a few later works would display a more professional and learned approach. Simple remedies, readily available in the home or on the farm, abounded. Those were largely herbal, and prescribed and administered in a "homey" fashion. When physician Sebastian Kunckler left for Philadelphia in 1794, for example, he advised his patients in the Mohawk Valley of New York to take a tea of camomile and honey for fevers and sweating and to make a "plaster of rotten apples, warmed and mashed, for a stitch in the side."[54] Johann Hohman recommended crushed garlic for corns.[55] Polypharmacy does not seem to have been common, although some of Baynon's recipes called for eleven to fourteen ingredients, and the Mithridate appeared there as well.[56]

The commonly used mineral substances of the early modern period (alum, antimony, mercury, and arsenic), as well as chemicals (sublimate of mercury, sal amoniac, vitriol, red lead, lye, and litharge of silver), as well as plant drugs were to be found in those books. But there was also a wide variety of medicaments from the animal world that was reminiscent of the *Dreckapotheke* that had virtually attained professional status in Germany by the work of that name by Christian Paullini in 1696.[57] Especially noticeable in veterinary uses, crude and inelegant to the twentieth-century observer, such materials were also found in domestic practice.[58]

Thus, like official compendia of the early modern period, the Pennsylvania books reflected the universal notion that everything and anything had a place in the materia medica. Hohman, on the same

page, gave remedies based on sublimated quicksilver, camomile flowers, and hareskin.[59] The more traditional pharmacy was not neglected, however. *Vollständiges Gäuls-Doctor-Buch* by the noted German veterinarian Johann Nicolaus Rohlwes contained a list of sixty *Arzneimittel* that could be found in almost any eighteenth-century pharmacopeia and dispensatory; later publications continued the practice.[60] Kunckler recommended that the householder provide himself (perhaps better, herself) with eleven basic medicines procured at the apothecary shop: rhubarb powder, senna leaves, manna, saltpeter, Peruvian bark, orange peels, camomile flowers, anise seeds, pink root, essence of mint, and court plaster.[61] A vast array of calendar and almanac literature also offered medical advice.[62] Outstanding among them was a series published by Christopher Sauer Jr. in Germantown between 1762 and 1778, in which he recommended 266 plants from Theodor Zwinger's 1696 *Theatrum Botanicum.*[63]

The Germans of Pennsylvania brought with them fears and credulities of very ancient origins. Occult practices developed alongside the more rational stream of domestic medicine. Again, a difference between the Richter approach and that of the later Pennsylvania German imprints is evident. The Richter approach reflected the clerical opposition to occult practices; in the eighteenth century those practices had become "lodged in the folk segment of the population."[64] Thus the early issues of the *Kurzgefasstes Arzney-Büchlein* carried a "Prognostical Table" on its title page found in the Royal Library and said to have come from Egypt.[65]

A related notion was that certain remedies could be given only on propitious days, particularly those related to the Zodiac or phases of the moon. Deigendesch's complicated directions for a bag of herbs to be hung on a horse with the wasting disease, for example, required actions on "St. John's Day when the clock strikes twelve," on three days before the new moon, and on the waning of the moon.[66] Hohman's remedy for a wasting fever required slaughtering an entirely black calf in the month of April "exactly at the hour in which the new moon rises."[67]

Superstition merged into magic. There appeared what the Pennsylvania Germans knew as *Bräuche* books, which provided remedies based largely on exorcisms and incantations. The *Bräuche* remedies found their way into the domestic remedy books as well, and the books were used as handbooks for the powwow, under the guidance of a powwow doctor, an indication that German immigrants were not adverse to absorbing some Native American practices.[68]

Another aspect was the persistence of the idea of sympathetic magic—the transference of an ailment or an evil to something else—an idea that had a basis in neo-Platonic and hermetic circles as well as folk medicine.[69] As the anonymous author of the *Neuer erfahrner, amerikanischer Haus- und Stallarzt* stated, it was one of the "many secrets under the sun that used correctly work magnificently."[70] Two forms of sympathetic magic are found in the Pennsylvania German literature. One is the use of sympathetic powder and sympathetic ointment, concoctions mainly (in Deigendesch) of calcined vitriol and tragacinth. The medicament was not to be applied to the wound but either to the instrument or weapon (thus "weapon salve") that had inflicted the wound or to a cloth dipped into the blood or fluid from the wound. Another sympathetic medica-

ment could be obtained by rolling up in paper hairs from various parts of a horse's body, then placing the roll in a hole drilled into a young tree (on the third day of the new moon, according to Deigendesch). As the hair rotted in the tree, the horse's condition would improve. Related to the notion of sympathy was the doctrine of signatures, wherein God indicated (or "signed") by coloration, shape, taste, or otherwise, certain natural products for the healing of analogous ailments. The doctrine was universal, and it received professional attention in Michael Bernhard Valentini's *Medicina Nov-Antiqua,* published in Frankfurt in 1698 and 1713.[71] Deigendesch's use of lungwort for lung disease in cattle, sheep, and horses, is an example of how the doctrine was applied.

Signs of modernization were discernible in the literature, however, and texts from more recent publications found their way to the American reader, especially in nineteenth-century veterinary literature. Henrich Neff's *Das durch viele Curen bestätigte und sicher befundene Pferdearzney-Büchlein* (1804) supports his claim to long knowledge and experience in veterinary medicine.[72] The apothecary-physician John Eberhard Freitag, in the preface to his *Der Deutsche Pferd-Arzt,* stated, in 1809: "Many people have asked me if I did not have certain remedies that one can place in the stall, or hang on the horse, that would always keep him healthy. The answer is always, and will always remain, take good care of your horse, that is the best means of preservation."[73] A new professional spirit can be recognized in Freitag's work and was even more discernible in the publication of Rohlwes's *Allgemeines Vieharzneibuch* in Reading in 1817.

Conclusion

The German medical texts used by German-speaking people in North America, particularly in Pennsylvania and adjoining areas, reflected a wide range of traditions and practices brought over from the homeland. During the colonial period, American imprints were relatively few and centered on the few publishers, like the Sauers, who had secured Gothic type. Much medical literature was imported, including medical journals and texts intended for the educated layman. Eventually, beginning with the expansion of local presses after the Revolution, there were lower-priced books of more practically oriented domestic medicine, homey medicine, and folk medicine that made a place for excremental pharmacy, superstition, charms and incantations, and sympathetic magic. All found their way into print. This article has not considered manuscript sources that had an even greater "predilection . . . for the curious and the occult."[74]

That the Richter did not find an American printer during the later part of the period under discussion may be due to a number of circumstances, including changes in the attitudes and practice of local physicians and a turn toward English and Scottish models after the founding of the College of Physicians in Philadelphia. But while the upper end of the German market remained dependent on imports from Europe, the local demand for traditional publications in German (printed in familiar Gothic type) is obvious both from their number and their frequent reprinting and from the plagiarism that was rampant. Of the many printings of the *Kurz gefasstes Arzney-Büchlein* that appeared between

1791 and 1803, "Thousands of them were sold in a short time, and are still agoing," boasted the publisher in a prefatory note to *The Cheap and Famous Farrier*, a quite different book he was issuing for English readers in 1795.[75] Appended to Hohman's *Land- und Haus-Apotheke* (1818) is a list of more than seven hundred subscribers in forty-six communities—an extraordinary feat of marketing. The popularity and demand for those books is also indicated by how often some were reprinted, albeit under different titles or authors, without the benefit of informing the public that they were re-issues of earlier works. In whole or in part, the *Kurzgefasstes Ross-Arzney Büchlein,* first printed in 1802 and twice reprinted, was appropriated three times thereafter.[76] *Neuer erfahrner, amerikanischer Haus- und Stall-Arzt* (1794) was also appropriated three times.[77] Neff's *Durch viele Curen* of 1804 was published under a very similar title but attributed to a different author two years later.[78] The same process prevailed among the *Weiberbüchlein,* as previously noted.

Lest it appear strange to the twentieth-century observer that a literate people—as the Germans in America were—would put credence in such a hodgepodge of remedies, it needs to be noted that in the 1650s the philosopher John Locke, then studying medicine at Oxford, copied a formula for sympathetic ointment into his commonplace book.[79] The official pharmacopoeias of the seventeenth century and well into the eighteenth century contained lists of *partes animalium* that were not too different from Deigendesch's cabinet of horrors. The Mithridate was not expunged from any pharmacopoeia until 1752, and vestiges of that hoary polypharmaceutical were still to be found in the nineteenth century.[80] Folk medicine makes use of the articles at hand in the search for health and comfort, relying heavily on tradition, experience, and faith. That is not an unreasonable approach when even trained physicians and their patients—including the audience of the Richter texts—had little else to rely on than laxatives, emetics, blisters, and the whole armamentarium of traditional medicines. To quote Johann Christian Friedrich Düffer, a student of Christian Wilhelm Hufeland's and a general practitioner and teacher at the Halle Medical School, from the 1808 edition of the Richter text:

> We do not deny that the widespread use of the Halle medications is in part based on a kind of innate feeling and a certain faith. . . . While this cannot be evidence of their worth in the eyes of a physician, in fact it does not differ from the often unconditional faith of the sick in a remedy proven by long experience, or in a well regarded general practitioner whose prescriptions one accepts without question.[81]

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Notes

1. Based on generally accepted estimates of German immigration into North America over the eighteenth century, an estimate of roughly ten thousand families is not unreasonable; see Hans Fenske, "International Migration: Germany in the 18th Century," *Central European History* 13 (1980): 332–47, and Marianne Wokeck, "The Flow and Composition of German Immigration to Philadelphia, 1727–1755," *Pennsylvania Magazine of History* 105 (1981): 244–78. Of those families, at least 60 percent would have had a literate male or female member either owning or sharing medical information in printed form.

2. German almanacs came both as imports and as American imprints. For American imprints, see Karl J. R. Arndt and Reimer C. Eck, eds., *The First Century of German Language Printing in the United States of America: A Bibliography Based*

on the Studies of Oswald Seidensticker and Wilbur H. Oda, 2 vols. (Göttingen: Niedersächsische Staats- und Universitätsbibliothek, 1989); for an American almanac published annually by a Swiss printer, see Johannes Tobler, *Alter und verbesserter Schreib-Kalender auf das G. Gnadenreiche Christ-Jahr MDCCLV . . .* (St. Gallen: Hans Jacob Hochreutiner, 1754).

3. For the wide range of topics in demand, see, most recently, Robert E. Cazden, *A Social History of the German Book Trade in America to the Civil War* (Columbia, S.C.: Camden House, 1984), Ch. 1, 10–12, 17 ff., and A. G. Roeber, "The German- and Dutch-language Book in North America to 1800," in *A History of the Book in America, Volume I,* ed. Hugh Amory and David D. Hall (forthcoming from Cambridge University Press).

4. Christian Friedrich Richter, *Seeligen Hn. D. Christian Friedrich Richters Höchst-nöthige Erkenntnis des Menschen, sonderlich nach dem Leibe und natürlichen Leben, oder ein deutlicher Unterricht, von der Gesundheit und deren Erhaltung; auch von deren Ursachen, Kennzeichen und Namen der Krankheiten, damit ein jeder, auch ungelehrter bei Ermangelung eines Medici, sonderlich durch XI hierzu hinlänglich erfundene, und Gebrauch dieses Traktats, vermöge bisheriger reicher Erfahrung die gewöhnlichen, auch schweren Krankheiten sicher und mit gutem Success kurieren könne, nun zum viertenmale gedruckt und herausgegeben von D. Christian Sigismund Richter und D. Johann Wolfgang Künstlin, Med. Prac. in Halle* (Leipzig: Johann Friedrich Gleditsch und Sohn, 1712) and many subsequent editions published in Halle by the Orphanage press. A shorter version had been published in 1705 as *Kurzer und deutlicher Unterricht vom Leibe und natürlichen Leben . . .* , republished by Hans Joachim Poeckern, *Die Halleschen Waisenhausartzeneyen* (Leipzig: Edition Leipzig, Bibliotheca Historico-naturalis Antiqua, 1984). A full listing of all editions is in Eckhard Altmann, *Christian Friedrich Richter (1676–1711): Arzt, Apotheker und Liederdichter der Halleschen Pietisten* (Witten: Luther Verlag, 1972).

5. The inscription, dated 1741 and by Dr. Christian Dürfeld of Saxe-Gotha, is in a copy at the National Library of Medicine; that library holds numerous editions of both the Richter and the Madai, five of which were acquired at the end of the nineteenth century from American private holdings.

6. Renate Wilson, "Die Halleschen Waisenhausmedikamente und die 'Höchst nöthige Erkenntnis' im Amerikanischen Kolonialstaat Georgia," *Schriftenreihe für Geschichte der Naturwissenschaft, Technik, und Medizin* 28 (1991): 108–28; Renate Wilson and Hans Joachim Poeckern, "A Continental System of Medical Care in Colonial Georgia," *Medizin, Gesellschaft und Geschichte: Jahrbuch des Instituts für Geschichte der Medizin der Robert Bosch Stiftung* 9 (1992): 99–126.

7. See Renate Wilson, "The Traffic in Halle Orphanage Medications: Medicinals, Philanthropy, and Colonial Mission," in this issue.

8. The 1740–1808 transactions are documented in the following two record sets of the Francke Foundations archives: IV, Pennsylvania, series G and F; and V, Georgia, series D and E, Missions-Archiv der Franckeschen Stiftungen, Halle.

9. E.g., David Samuel von Madai, *Kort bericht van de nuttigheid en 't gebruik van eenige beproefde geneesmiddelen* (Amsterdam: n.p., 1760). According to Belint Keserü, the only translation of Richter's original work and Madai's condensed text was into Latin, which remained the scientific lingua franca in Russia and throughout East and Southeast Europe until the nineteenth century; we thank Dr. Keserü for that information.

10. Wilson and Poeckern, "Continental System."

11. Richter, *Höchst-nöthige Erkenntnis,* 5, 7.

12. *Deutsche Acta Eruditorum,* 20 vols. (Leipzig: J. F. Gleditsch und Sohn, 1712–1739), 10:875, as cited in Altmann, *Christian Friedrich Richter,* 216.

13. Samuel Auguste Tissot, *Advice to the People in General, with Regard to Their Health . . .* (Philadelphia: Sparhawk, 1771); William Buchan, *Domestic Medicine* (Philadelphia: John Dunlop, 1772). For continuity into the nineteenth century, see Elizabeth Barnaby Keeney, "Unless Powerful Sick. Domestic Medicine in the Old South," in *Science and Medicine in the Old South,* ed. Ronald L. Numbers and Todd L. Savitt (Baton Rouge: Louisiana State University Press, 1989), 276–94.

14. John Wesley, *Primitive Physick: or, An Easy and Natural Method of Curing Most Diseases* (Philadelphia: Crukshank, 1770). On the traditional anti-academic stance of many radical Christian groups, see Charles Webster, *The Great Instauration: Science, Medicine and Reform, 1626–1660* (London: Duckworth, 1975).

15. The radical Pietist physician Johann Samuel

Carl did, however, publish a *Medicina pauperum oder Armen-Apotheck* (Büdingen: n.p., 1719).

16. A. G. Roeber, *Palatines, Liberty, and Property: German Lutherans in Colonial British America* (Baltimore: Johns Hopkins University Press, 1993), 243–82; A. G. Roeber, "J. H. C. Helmuth, Evangelical Charity, and the Public Sphere in Pennsylvania, 1793–1800," *Pennsylvania Magazine of History and Biography* 121, nos. 1–2 (1997): 77–100.

17. Jon Butler, *Awash in a Sea of Faith: Christianizing the American People* (Cambridge, Mass.: Harvard University Press, 1990).

18. Andrew Wear, "The Popularization of Medicine in Early Modern England," in *The Popularization of Medicine, 1650–1850,* ed. Roy Porter (London: Routledge, 1992), 17–41; John Scarborough, "Introduction," in *Folklore and Folk Medicines,* ed. Scarborough (Madison, Wis.: American Institute of the History of Pharmacy, 1987).

19. Wolf-Dieter Müller-Jahncke, *Astrologisch-magische Theorie und Praxis in der Heilkunde der frühen Neuzeit,* in Sudhoffs Archiv: Zeitschrift für Wissenschaftsgeschichte, vol. 25 (Stuttgart: Steiner Verlag Wiesbaden, 1985), 121–33.

20. William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton: Princeton University Press, 1994), esp. 122–24, offers a persuasive reassessment of literacy in the early modern urban artisanate. The continued preference for Gothic type in the eighteenth century was not limited to Germans whose reading experience was largely based on the Luther Bible but apparently included settlers of Dutch origin, mainly among the lower strata. According to Paul Hoftijzer at Leiden University, Dutch book production went over to Roman type only at the beginning of the nineteenth century and had coexisted with Gothic type in a large proportion of Dutch books, pamphlets, broadsheets, etc. We thank Professor Hoftijzer for that information, and Professor Harold Cook for information on the parallel use of Gothic and Roman type in Dutch seventeenth-century imprints in the vernacular.

21. For the Sauers and their German press, see Hans-Jürgen Schrader, *Literaturproduktion und Büchermarkt des radikalen Pietismus: Johann Henrich Reitz, "Historie Der Wiedergebohrnen" und ihr geschichtlicher Kontext* (Göttingen: Vandenhoeck and Ruprecht, 1989), 225–26. For German book trading practices and American presses, see Cazden, *Social History,* 8 ff., 16–17.

22. For recent work on the continuing if much smaller immigration streams from Germany from 1790 to 1820, see Hans-Jürgen Grabbe, "Besonderheiten der europäischen Einwanderung in die USA während der frühen nationalen Periode, 1783–1820," *American Studies* 33 (1988): 271–90. There is little information on the social and educational stratification of American groups of German extraction during that period, however, and we do not know to what extent the Richter texts had been fully replaced by works in the style of Buchan and Tissot.

23. E.g., Johannes Deigendesch's *Nachrichters: Oder Nützliches und aufrichtiges Ross-Artzney-Büchlein,* published in Freiburg in 1717, was printed in Germantown in 1770 and three times thereafter.

24. Kurt Aland, ed., *Die Korrespondenz Heinrich Melchior Mühlenbergs: Aus der Anfangszeit des Deutschen Luthertums in Nordamerika,* vol. 1 (Berlin: W. de Gruyter, 1986), 288–89, 303 ff.; Mühlenberg to Benjamin Franklin, Aug. 3, 1754, in *The Papers of Benjamin Franklin,* Vol. 5, ed. Leonard W. Labaree and Whitfield J. Bell Jr. (New Haven: Yale University Press, 1962), 419.

25. See Renate Wilson in this issue.

26. The *Secreti del reverendo donno Alessio Piemontese* was first published in Venice in 1555. Johann Jacob Wecker, *Kunstbüch des wolerfarner Herren Alexii Pedemontani von mancherley nützlichen undd bewerten Secreten oder Künsten* (n.p., 1573).

27. Eamon, *Science and the Secrets of Nature,* 144.

28. Ibid., 96–97, 444; John Neu, ed., *Chemical, Medical, and Pharmaceutical Books Printed Before 1800 in the Collections of the University of Wisconsin Libraries* (Madison: University of Wisconsin Press, 1965), 228.

29. *National Union Catalog: Pre-1965 Imprints,* 754 vols. (London: Mansell, 1968–), 512:423–24. His works were reprinted long after his death.

30. Eamon, *Science and the Secrets of Nature,* 124. The precise title of this *handbüchlein* has not been determined; a later issue was called *Handbüchlein, vnd Experiment vieler Arzneyen . . . durch den hochgelehrten Q Apollinaren selbs erfahren vnd bewert* (Strasburg: Erbern, 1579).

31. Cazden, *Social History,* 10–11.

32. Arndt and Eck, eds., *First Century of German Language Printing;* David L. Cowen, "'Zum Dienst des Gemeinen Mannes, insonderheit für die

Landleute': The Domestic and Veterinary Medical Books Printed in Colonial North America and the United States in the German Language," in *Orbis Pictus: Kultur-und pharmaziehistorische Studien: Festschrift für Wolfgang-Hagen Hein zum 65. Geburstag,* ed. Werner Dressendörfer and Wolf-Dieter Müller-Jahncke (Frankfurt am Main: Govi-Verlag, 1985), 60–66.

33. Tobias Hirte, "Vorrede," in *Ein neues, auserlesenes, gemeinnütziges Hand-Büchlein* (Germantown: Saur, 1792).

34. Sebastian Kunckler, "Vorbericht," in *Handbuch für meine Freunde in den Districten von Canajohary und Palatine an der Mohawk-River: zur Erhaltung und Wiederstellung der Gesundheit* (Philadelphia: Carl Cist, 1794). As Buchan expressed the idea in his ubiquitous *Domestic Medicine:* "It never was, and, in all probability, never will be in the power of one half of mankind to obtain the assistance of physicians" (vi).

35. "Vorrede," *Neuer erfahrner, Amerikanischer, Haus- und Stallarzt* (Fredericktown: Matthias Bärtgis, 1794). In one edition of *Domestic Medicine,* Buchan warned his readers "to guard themselves against the destructive influences of Ignorance, Superstition and Quackery" (Philadelphia: Richard Folwell, 1799), 16.

36. For example, more than two hundred issues of Ryff were published by European presses in the sixteenth and seventeenth centuries. Eamon, *Science and the Secrets of Nature,* 96; Müller-Jahncke, *Astrologisch-magische Theorie,* 129.

37. David L. Cowen, "Deigendesch's Nachrichters Arzneibüchlein," *Journal of the American Veterinary Medical Association* 139 (1961): 369.

38. *National Union Catalog: Pre-1956 Imprints,* 52:70–71.

39. *Kurzgefasstes Arzney-Büchlein für Mensch und Vieh* (Ephrata, Pa.: n.p., 1791); Robert B. Austin, *Early American Medical Imprints: A Guide to Works Printed in the United States, 1668–1820* (Washington: U.S. Department of Health, Education and Welfare, 1961), 120.

40. Don Yoder, "Hohman and Romanus: Origins and Diffusion of the Pennsylvania German Powwow Manual," in *American Folk Medicine: A Symposium,* ed. Wayland D. Hand (Berkeley: University of California Press, 1976), 238; Johann G. Hohman, *Der lange verborgene Freund oder: Getreuer und Christlicher Unterricht für Jederman* (Reading, Pa.: n.p., 1819).

41. Albertus Magnus, *Secreta mulierum et virorum (cum expositione Henrici de Saxonia)* (Venice: de Rottweil, 1478); Müller-Jahncke, *Astrologisch-magische Theorie,* 122.

42. Peter Krivatsy, *A Catalogue of Incunabula and Sixteenth Century Printed Books in the National Library of Medicine, First Supplement* (Bethesda, Md.: U.S. Department of Health, Education and Welfare, 1971), 6.

43. *Kurzgefasstes Weiber-Büchlein enthält Aristotles und Alberti Magni Hebammen-Kunst* was published at least five times between 1798 and 1818 by various publishers; *Nützliches und sehr bewährt befundenes Weiber-Büchlein enthält Aristoteles und Alberti Magni Hebammen Kunst* was published in Ephrata in 1822, probably by Baumann.

44. Cowen, "'Zum . . . Landleute,'" 51, 64–65.

45. Otho T. Beall Jr., "Aristotle's Masterpiece in America: A Landmark in the Folklore of Medicine," *William and Mary Quarterly,* ser. 3, 20 (1963): 220.

46. E.g., *Kurzgefasstes Weiber-Büchlein* (Ephrata, Pa.: n.p., 1798); Cowen, "'Zum . . . Landleute,'" 47.

47. Christian F. Richter, *Kurzer und deutlicher Unterricht von dem Leibe und natürlichen Leben des Menschen . . .* (Halle: Im Waisenhause, 1705), title page.

48. *Wohl-eingerichtes Arzney-Büchlein . . . zum Dienst des gemeinen Mannes, insonderheit die Landleute heraus gegeben* (Philadelphia: Henrich Miller, 1771).

49. *Noth und Hülfbüchlein für Bauerleute* (Philadelphia: Neal and Kammerer, 1796), as listed in Charles Evans, *American Bibliography* (Worcester, Mass.: American Antiquarian Society, 1903–), no. 30920. Evans indicates that there is no known extant copy.

50. Hirte, *Neues Hand-Büchlein,* 8.

51. Eliam Baynon, "Vorrede," *Der barmherzige Samariter oder Freund und brüderlicher Rath* (Hannover: Samuel Endredy Stettinius, 1798).

52. Thomas R. Brendle and Claude W. Unger, "Witchcraft in the Cow and Horse," *Pennsylvania Dutchman* 8, no. 1 (1956): 28–29.

53. Thomas R. Brendle and Claude W. Unger, *Folk Medicine of the Pennsylvania Germans: The Non-Occult Cures* (1935; rpt. New York: A. M. Kelley, 1970), 124.

54. Kunckler, *Handbuch für meine Freunde,* 7, 26.

55. Johann G. Hohman, *Die Land- und Haus-Apotheke* (Reading, Pa.: C. A. Bruckman, 1818), 43.

56. Baynon, *Barmherzige Samariter,* 6–7.

57. Franz Christian Paullini, *Heilsame Dreck-Apotheke, wie nemlich mit Koth und Urin . . . alle . . . Schaden . . . curirt worden* (Frankfurt am Main: Friedrich Knochens, 1696).

58. David L. Cowen, "The Folk Medicine of the Pennsylvania Dutch," in *Folklore and Folk Medicines,* 90.

59. Hohman, *Land- und Haus-Apotheke,* 46.

60. Johann Nicolaus Rohlwes, *Vollständiges Gäuls-Doctor-Buch* (Reading, Pa.: Heinrich B. Sage, 1817). See also, e.g., Daniel Schmidt, *Das gemeinnützige Haus-Arzneybuch* (Carlisle: Moser and Peters, 1826) and L. W. Weber, *Der kluge Land-Medicus und Hausapotheke* (Chambersburg, Pa.: n.p., 1846).

61. Kunckler, *Handbuch für meine Freunde,* 39.

62. See Francisco Guerra, *American Medical Bibliography, 1639–1783* (New York: Lathrop Harper, 1962), 119–32.

63. Christa M. Wilmanns Wells, *A Small Herbal of Little Cost, 1762–1778: A Case Study of a Colonial Herbal as a Social and Cultural Document,* Ph.D. diss., University of Pennsylvania, 1980 (rpt.; Ann Arbor, Mich.: University Microfilms, 1982).

64. Butler, *Awash in a Sea of Faith,* 30.

65. The title pages of the 1791, 1792, and 1794 printings of the *Kurzgefasstes Arzney-Büchlein* carried the notice; the 1795 printing included the "Prognostica" in its prefatory material but did not mention it on its title page.

66. Deigendesch, *Nachrichters . . .* (Germantown: Leibert, 1791), 94.

67. Hohman, *Land- und Haus-Apotheke,* 28.

68. Yoder, "Hohman and Romanus."

69. Birgit Zimmermann, *Das Hausarzneibuch* (Marburg/Lahn: Inaugural-Dissertation der Philipps-Universität Marburg, 1975), 151.

70. *Neuer erfahrner,* 57–58.

71. Michael Bernhard Valentini, *Medicina Nov-Antiqua* (Frankfurt: n.p., 1713), 286.

72. Henrich Neff, *Das durch viele Curen bestätigte und sicher befundene Pferdearzney-Büchlein* (Ephrata, Pa.: Bauman and Cleim, 1804), 9.

73. John Eberhard Freitag, *Der Deutsche Pferd-Arzt* (Easton, Pa.: Christ, Jac. Hütter, 1809), iv.

74. "Bibliography of Recipes in Manuscript," in Brendle and Unger, *Folk Medicine,* 289–303; Yoder, "Hohman and Romanus," 238–39.

75. *The Cheap and Famous Farrier* (Ephrata, Pa.: n.p., 1795).

76. John Schneyder, *Nützliches und bewährt befundnes Rossarznei-Büchlein* (Ephrata, Pa.: Johann Baumann, 1805); *Sicher und bewährt befundenes Gäuls-Doktor-Büchlein* (Ephrata, Pa.: Johannes Baumann, 1809); Hohman, *Land- und Haus-Apotheke.*

77. Hohman, *Land- und Haus-Apotheke;* Schmidt, *Gemeinnützige Haus-Arzneibuch;* Weber, *Kluge Land-Medicus.*

78. Johann A. Zeller, *Durch viele Curen bestätigtes Ross-Arzney-Büchlein* (Harrisburg, Pa.: Benjamin Mayer, 1806).

79. David L. Cowen, "Some Comments on Dr. Romanell's Article on Locke and Sydenham," *Bulletin of the History of Medicine* 33 (1959): 177.

80. David L. Cowen, "Expunctum est Mithridatium," *Pharmaceutical Historian* 15, no. 3 (1985): 2–3.

81. Johann C. F. Düffer, "Vorrede," *Dr. David Samuel von Madai's . . . Kurze Beschreibung der Wirkungen und Anwendungsart der bekannten Hallischen Waisenhaus-Arzneyen* (Halle: Verlag der Medicamenten-Expedition und in Commissison der Buchhandlung des Waisenhauses, 1808), iv.

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