

# ***The sooterkin dissected : the theoretical basis of animal births to human mothers in early modern Europe***

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## **Summary**

John Maubray's description of the sooterkin, a strange animal born to human mothers usually along with a normal infant, provoked ridicule when it was published in 1724. It seemed to one commentator that such creatures could only be explained by spontaneous generation. Examination of the seventeenth-century European literature on monstrous births provides many accounts of non-human offspring born to human mothers. These provide an insight into early modern theories of foetal development. Sooterkin births were distinct from other 'false conceptions' such as moles, but like moles they were believed to arise from human semen. This theory arose at the beginning of the seventeenth century, when the natural philosopher Fortunio Liceti proposed that human semen could degenerate and give rise to a foetus that either resembled an animal or truly was animal in nature. This concept was later extended to the human foetus itself, which it was thought could degenerate in response to external stimuli such as maternal impressions. The theory of seminal degeneration offers an explanation for the increased interest in reports of animals born to human mothers that occurred in the seventeenth century. It is also evidence of sophisticated embryological ideas: foetal development in animals and humans was thought to proceed along similar lines, and abnormalities occurred when the conceptus followed an alternative developmental pathway.

## **Résumé**

En 1724, la description de John Maubray donnée du sooterkin fut tournée en ridicule. Le sooterkin était cet étrange animal auquel les mères humaines donnaient naissance en même temps qu'un enfant normal. Selon un commentateur, de telles créatures ne pouvaient s'expliquer par la génération spontanée. La littérature européenne du XVII<sup>e</sup> siècle qui traite des naissances monstrueuses mentionne l'existence de plusieurs progénitures non-humaines, nées de mères humaines. Ces naissances non-humaines laissent entrevoir les premières théories modernes du développement foetal. Les naissances de sooterkin étaient différentes de produits de conception tels que les môles hydatidiformes, censés eux provenir de la semence humaine. Cette théorie explicative émergea au début du XVII<sup>e</sup> siècle : le philosophe naturaliste, Fortunio Liceti, émit l'idée d'une semence humaine subissant une dégénérescence et pouvant produire un foetus. Ce dernier ressemblait à un animal ou pouvait être de nature animale. Le concept s'étendit ensuite au foetus humain qu'on croyait capable de dégénérer, sous l'effet de stimulations externes telles que les empreintes maternelles. La théorie de la dégénérescence séminale explique l'intérêt des auteurs du XVII<sup>e</sup> siècle pour rapporter des cas d'animaux, nés de mères humaines. Le phénomène servit de preuve pour expliquer certaines théories embryologiques complexes. Ces théories postulent un développement foetal animal ou humain censé procéder de façon semblable. Les anomalies surviennent dès que le produit de conception suit une autre voie de développement.

In 1724 John Maubray MD (1700-1732), a then little known London man-midwife and teacher of midwifery published *The Female Physician* (Figure 1), a book on the practice of midwifery, based on the non-instrumental system of the recently deceased Hendrik van Deventer (1651-1724). The aspect of Maubray's work that attracted most attention was a short passage in which he claimed to have delivered a Dutch woman of a strange animal that he called de *suyger*:

That these BIRTHS in those Parts, are often attended and accompany'd with a *Monstrous* little *Animal*, the likest of any thing in Shape and Size to a MOODIWARP; having a *hooked snout*, *fiery sparkling Eyes*, a long *round Neck*, and an acuminated *ShortTail*, of an extraordinary *Agility* of FEET. At first *sight* of the World's Light, it commonly *Yells* and *Shrieks* fearfully; and seeking for a *lurking Hole*, runs up and down like a little *Daemon*, which indeed I took it for, the first time I saw it, and *that* for none of the better sort-

not many Years ago, in coming from Germany over East and West *Friesland*, to *Holland*, I took passage in the ordinary Fare-Vessel, from the City of Harlingen for Amsterdam...

Amongst the better Sort of the Passengers, who posses'd the Cabine, there happen'd to be a Woman *big with Child*, of a very creditable Aspect, who...was taken all at once, aboard the *Ship*, with a sudden and surprising LABOUR: upon which occasion, in short I immediately lent her a helping *Hand*, and upon the *Membran's* giving way, this forementioned ANIMAL made its wonderful *Egress*; filling my Ears with dismal SHRIEKS, and my *Mind* with greater CONSTERNATION...

I heard some of our *Accidental* Company call it de *Suyger*, as they went about to kill it: upon which I immediately laid [delivered] the *Woman* of a pretty *plump* GIRL; who, notwithstanding all this, had no *Deformity* upon it, save only many dark, *livid* SPOTS all over its *Body*...

AFTERWARDS I had occasion to talk with some of the most learned Men, of the several famous Universities in these *Provinces* upon this Head; who ingenuously told me, that it was so common a Thing, among the *sea-faring*, and *meaner* sort of *People*, that scarce ONE of these *Women* in *Three* escaped this kind of strange BIRTH; which my own small Practice among them afterwards also confirmed: Insomuch, that I always as much expected the *Thing de Suyger*, as the CHILD it self: And besides the *Women* in like manner, make a respective suitable *Preparation*, to receive it warmly, and throw it into the Fire; holding Sheets before the *Chimney*, that it may not get off; as it always endeavours to save it self, by getting into some dark *Hole* or *Corner*. They properly call it *de Suyger*, which is (in our Language) the SUCKER, because, like a *Leech*, it sucks up the INFANT'S *Blood* and *Aliment*'

Although Maubray did not use the word *sooterkin* in his account of *de suyger*, he was describing something that was already part of the English language. In 1654, John Cleveland (1613-1658) had written, 'There goes a report of the Holland Women, that together with their Children, they are delivered of a Sooterkin, not unlike to a Rat, which some imagine to be the Offspring of the Stoves.'<sup>2</sup> In her *Midwives Book*, published in 1671, Jane Sharp included sooterkins along with other animals generated in the womb:

[a]s for monsters of all sorts to be formed in the womb all nations can bring some examples; Worms, Toades, Mice, Serpents, Gordonius saith, are common in Lumbardy, and so are those they call Soole kints in the Low Countries, which are certainly caused by the heat of their stoves and menstrual blood to work upon in women that have had company with men; and there are sometimes alive with the infant, and when the Child is brought forth these stay behind, and the woman is sometimes thought to be with Child again; as I knew one there my self, which was after her child-birth delivered of two like Serpents, and both run away into the Burg wall as the woman supposed, but it was at least three months after she was delivered of a Child, and they came forth without any loss of blood, for there was no after burden.'<sup>3</sup>

Shortly after it was published, Maubray's claim to have delivered sooterkins was ridiculed by the surgeon James Douglas (1675-1742) in a pamphlet entitled *The Sooterkin Dissected*,<sup>4</sup> written under the pseudonym of Philalethes or 'a lover of truth and learning.' Dutch mothers, Douglas observed, called their children

'sooterkints,' or sweet children, but there was no creature called *de Suyger*, and he offered readers a guinea for every sooterkin brought from Holland. This sort of satire made an impression, and Maubray became popularly known as 'the sooterkin doctor.'<sup>5</sup> Maubray's account of the sooterkin may have been an intentional, and indeed successful, attempt to obtain publicity for *The Female Physician* by including some remarkable material (he also mentioned the story of Countess Margaret of Henneberg's 365 children and later attended the birth chamber of the most celebrated of eighteenth-century England's producers of non-human offspring, the 'rabbit-breeder' Mary Toft, Figure 2).<sup>6</sup> Whatever Maubray's motives were, Douglas's response to his account links reports of non-human animals produced in the womb with the spontaneous generation controversy. Examination of the literature on animals born to human mothers in the seventeenth century shows that they were usually considered to be types of false conceptions rather than spontaneous generations. This suggests a more complex view of foetal development than has sometimes been supposed.

The extensive literature on monstrous births in books, journals and broadsides of the sixteenth and seventeenth centuries, which was larger than that dealing with 'conventional' childbirth, was prompted not only by the hunger for curiosities shown by both medical and lay readers, but also by the relevance of monstrous births to *ongoing* debates on natural philosophical problems such as foetal development and heredity, as well as to theological concepts such as divine intervention. Sooterkins were not, strictly speaking, monstrous births because, as Douglas wrote, the sooterkin was a prodigy, 'contrary to the whole Course of Nature,' rather than a monster as Maubray had perhaps carelessly termed it. This seemingly pedantic distinction was a crucial one in the early modern literature:

A monster is anything that appears outside the usual course and order of nature, such as a child with two heads, or which has three or more arms or other superfluous members, mutilated or maimed.

A prodigy is that which goes totally against nature, such as if a woman gives birth to a beast, whether four-footed, aquatic, flying, reptilian, or of some other kind.<sup>7</sup>

One difference was that monsters were malformed human offspring remarkable principally for their rarity whereas prodigies, which were not necessarily malformed, were not human. Unlike monstrous births,

sooterkins were regarded as non-human and midwives were expected to kill them.<sup>8</sup>

Douglas's argument against the existence of sooterkins had two main strands. The first was that no one had ever seen one. In itself this was a weak argument not only because absence of evidence is not evidence of absence but also because, despite his having 'lately seen a Book of Ruyschius, called, *Tractatio Anatomica de Musculo in fundo uteri*, page 16 where he confesses, that after sixty two Years Practice in dissecting diverse Bodies of Women in *Holland*, he never saw this *Animal*,' Douglas had to admit that there were many published descriptions of sooterkins, some of which he quoted, with the suggestion that they were intended to be understood only in a 'moral' rather than a 'natural' sense. His second argument was that spontaneous (or equivocal) generation did not occur: 'If there is any such thing as equivocal generation; Why not a *Bird* or a *Man* produced this way sometimes? Why no new species now and then? There must certainly be a pre-existent *Animalcule*.... No *Animal* is bred of *Corruption* whatever its *Nidus*!<sup>9</sup>

### Spontaneous generation

The early modern period saw a restriction in the kinds of animals thought to be produced by spontaneous generation. Almost no-one supposed that Men were still formed in this way, though spontaneous human generation was invoked by some to explain the origin of mankind after the Biblical flood:

Avicenna [Ibn Sina 981-1037], in that work of his which he made of deluges and floods; holds, that after the great floods that drowned the Earth, there was no mans seed; but then, man, and all living Creatures else, were generated of rotten carcasses, only by the vertue of the Sun: and therefore he supposeth, that the womb, and such needful places framed by nature, for the better fashioning of the infant, are not needful to the procreation of man. He proves his assertion by this, that mice, which arise of putrefaction, do couple together, and beget store of young; yea, and serpents are generated chiefly [*i.e.*, most commonly] of womans hair...<sup>10</sup>

Although Douglas represented the idea of a man or a bird being produced spontaneously as being self evidently absurd, some quite complex animals such as mice were thought to arise either from seed of their own kind or from putrefaction. It is noticeable that the animals most often put forward as arising by spontaneous generation were either vermin or dangerous and unpleasant pests such as flies, snakes, mice and worms: creatures perhaps thought fit to be

generated from corruption. The rodent-like sooterkin was certainly the type of creature that might arise in this way: 'It commeth also to passe, that by the corruption, that some hurtfull living creatures, or shapes of living creatures are ingendered in the Matrix with children...'<sup>11</sup>

Since the classical period, menstrual blood had been commonly regarded as deleterious to life (the presence of a menstruating woman was enough to make seeds and fruit trees sterile and wine turn sour)<sup>12</sup> and menstruation was thought to be beneficial to women as it rid their blood of impurities. It followed that 'suppression of the flowers' was harmful, and measures such as cupping, bleeding and purging were employed if menstruation failed to occur.<sup>13</sup> In terms of humoral theory women menstruated because they were cold and humid whereas men were warm and dry. Moisture and heat were both necessary for generation,<sup>14</sup> and therefore the best time to conceive was just before or after menstruation. On the other hand, conception during menstruation was fraught with problems.<sup>11</sup> Moisture when combined with the heat of the male semen was the basis of putrefaction, because moist humours were:

...excrementations and also alimentations, by which the least defect of Heat is easily turned into putrefaction...whence it is that foul Bodies, Trees cut down at Full Moon, being full of their sap, and Fruits gather'd before their maturity, very easily corrupt ..."

Sooterkins or other animals were produced during pregnancy along with the foetus because at this time menstruation ceased and menstrual blood accumulated in the womb: as Ortolff von Bayerland's *Frauenbuchlein* (little book of women) put it, 'filth may gather in the lying in woman.'<sup>17</sup> The womb could thus prove fertile in an undesired way:

Neither is it hard to generate Toades of womens putrified flowers; for women do breed this kind of cattel, together with their children, as Celius Aurelianus and Platearius call them, frogs, toads, lizards, and such like: and the women of Salerium, in times past, were wont to use the juice of Parsley and Leeks, at the beginning of their conception, and especially about the time of their quickening, thereby to destroy this kind of vermin with them.<sup>18</sup>

The theory that sooterkins were generated from corruption in the womb could explain why they were unique to humans - other animals produced monstrous births but never sooterkins - as humans were the only animal that enjoyed the 'advantage' of menstruation: 'as

beneficial to them as it is extraordinary.<sup>9</sup> However, unlike creatures produced by spontaneous generation, sooterkins were formed from human semen, and in this respect they resembled other so-called 'false' conceptions.

### False Conceptions

Several historians have likened sooterkins to hydatidiform moles. Marland for example states that the *vlyger* (an alternative form of *suyger*): 'has been defined as a lump of meat that was driven from the body of the mother in the same way as a miscarriage. It would appear to be similar to the "mole" described in *Aristotle's Works...*<sup>20</sup> Gelis considered sooterkins to be a misinterpretation of hydatidiform moles: '[the mole's] irregular shape gave rise to the weirdest interpretations on behalf of the women who had witnessed the event. Some would have "seen" the woman give birth to a dead animal, rat, mole, or tortoise; others saw a living four-footed animal, armed with claws and hooked nails...'<sup>21</sup> In my view there are several problems with this theory. Firstly, hydatidiform mole, known simply as *mola*, a mass, was well known in the seventeenth century. The man-midwife Guillaume Mauquest de la Motte (1655-1737) described it as 'a false Conception' and 'a Shapeless mass' and one of his patients, two months pregnant, diagnosed her own molar pregnancy, a diagnosis subsequently confirmed at delivery.<sup>22</sup> Secondly, the interpretations proposed by Gelis are improbable - a mole looks nothing like any of them. When molar pregnancies were interpreted as living things it was as a 'palpitating marine zoophyte'<sup>23</sup> or Countess Margaret's 365 children, each, presumably, in its own gestational sac. Thirdly, the sooterkin was often said to emerge after the birth of a baby, a kind of monstrous afterbirth, whereas one of the characteristics of a complete hydatidiform mole is that there is no associated foetus.<sup>24</sup>

Moles and other 'false conceptions' were never known to be produced without copulation: the strange bodies ('corps estranges') passed on occasion by virgins turned out on close inspection to be merely 'Clods of Blood coagulated'.<sup>25</sup>

*Moles* are ordinarily engendered, when either the Man's or Woman's Seed or both together, are weak or corrupted, the Womb not labouring for a true Conception, but by the help of the Spirits by which the Seed ought to be replenished: but so much the easier, as the small quantity found in it is extinguished, as it were choaked or drowned by abundance of the gross and corrupted menstruous blood, which sometimes flows thither soon after Conception, and gives not leisure to Nature to

perfect what she hath with great Pains begun, and so troubling its work, bringing thither Confusion and Disorder, there is made of the Seeds and Blood a meer *Chaos*, call'd a *Mole*, not usually ingendered but in the Womb of a Woman, and never or very rarely found in the other Animals, because they have no menstrous [*sic*] Blood as she hath.<sup>26</sup>

Such false conceptions were not examples of spontaneous generation - they did not arise from corruption alone but required semen, however defective:

'Averrois and Paulus Aegineta doe declare that this deformed lump of flesh is ingendered of the weaknesse and debility of both the seedes, that is to say, of the mans and womans, or else of the corruption of good seedes, which happeneth about the first time of conception. But others doe say, that it is engendered of the abundance of the flowers or Terms, because through the great heat of the Matrix they are sometimes congealed and clotted together, and brought into a misshapen masse or lump of flesh; but they which doe more narrowly pry and search into the Natures of things, doe attribute this to the more copious and abundant seed of the woman, especially in those women who are somewhat more lascivious than others are, which conceiving little seed from their husbands, dry by nature, by the desire of the Matrix [one function of which was to 'attract' the seed], doe stirre up copious seed of their owne, which augmented with the flowers, by the heat of the Matrix, is congealed together, and by the defect and want of mans seed, the proper worke-man and contriver of it, doth grow together in such a lump: For nothing can be ingendered without the seed of man; as neither any can be ingendered of the seed of women only...'<sup>27</sup>

False conceptions occurred when human seed was 'corrupted' either of itself or through its environment: 'Moles always proceed from some false Conceptions, which continuing in the Womb, increase gradually by the Blood that flows to them... Women expel these false-conceptions sooner or later...'<sup>28</sup> Unlike sooterkins, moles had no definite shape: The Mole is nothing but a fleshy substance, without Bones, Joints, or Distinction of Members; without Form or Figure, regulated and determined; engendered against Nature in the Womb, after Copulation, out of the corrupted seed of both Man and Woman.<sup>29</sup> They also had no 'true life'.<sup>30</sup> The sooterkin was neither shapeless nor lifeless, but an animal with a distinct, if unusual, form, as Maubray described.

### Degeneration of the seed

Menstrual blood, though inimical to most living things, was a substrate in which, through corruption, spontaneous generation might occur - Jan Baptista van Helmont used menstrual blood in one of his recipes for spontaneous generation of mice<sup>31</sup> - but not all creatures thought to be produced from corruption were formed spontaneously. According to *Aristotle's Problems*:

anything else which is produced from the semen, as for instance, a worm, or the so-called monstrosities, when there is corruption in the womb, are not to be reckoned as offspring. In a word, anything which is produced from corruption is no longer produced from that which is our own but from that which is alien to us, like that which is generated from excretions such as ordure.<sup>32</sup>

There is an assumption here that creatures that arose 'from corruption' were nevertheless produced from semen. The admixture of the 'semen' (male and female) with menstrual blood exerted a corrupting influence on the foetus:

Because a child conceived during the menstrual flow takes its nourishment and growth - being in its mother's womb — from blood that is contaminated, dirty, and corrupt, which having established its infection in the course of time, manifests itself and causes its malignancy to appear<sup>33</sup>

In his book *De Monstrorum*, first published in 1616 (Figure 3), Fortunio Liceti (1577-1647)<sup>34</sup> proposed that degeneration of the semen was a cause for failure of proper foetal development. Liceti advanced an Aristotelian view that monsters were slips of nature rather than part of a divinely-ordered plan and so re-established the classical concept of monstrous births as mistakes rather than acts of God. A large part of the literature on monstrous births concerned human offspring that resembled animals and Liceti discussed several theories to account for these. Many he attributed to accidental resemblance: the features of abnormal children reminded observers of animals.<sup>35</sup> In other cases, he proposed that the semen could degenerate (*degenerare*) and that this resulted in the foetus developing as if it were an animal: 'In this way, at any time, a woman, without committing adultery or other lewdness, can give birth to a monster whose limbs resemble those of animals of various kinds.'<sup>36</sup>

'[i]f, therefore, the male semen in the female uterus were to degenerate from its original nature through whatever cause, its vital principle becomes

transformed to another kind; if the whole of the semen were fully changed in this way, whole creatures of diverse kinds are formed; not monsters, but like monsters...'<sup>37</sup>

In the early modern period there was no concept of the passage of the foetus through progressive developmental stages. The foetus was 'concocted' from the mixed semen and the time taken for this to occur was in practice even less well defined than Aristotle's forty days for the male and four months for the female (after which time maternal impressions could no longer occur).<sup>38</sup> Even at six months gestation, it was supposed that a baby could still degenerate (*degenerare*) into a monkey.<sup>39</sup> This degeneration was caused not only by the influence of menstrual blood; other stimuli such as maternal impressions could radically change not only the shape of a foetus but also its nature: '[m]any apprehensions seize on the pregnant woman and the foetus changes its whole shape, indeed, it changes its nature, from human to that of a beast...'<sup>40</sup> The concept of seminal and foetal degeneration assumed that human development was based on that of other animals. Implicitly, the human foetus was thought to contain within it the nature of 'lower' animals.

Accounts of women who gave birth to animal offspring did not originate in the seventeenth century but appear to have come to greater prominence. At the same time, erosion of the once absolute theologically based distinction between humans and animals led to increasing ambiguity about the status of humankind.<sup>41</sup> The sooterkin's unpleasant and verminous appearance may have reflected 'a new fear about the status of humanity',<sup>42</sup> that found expression in anxieties over the possibility that human semen and perhaps even the human foetus had the potential to degenerate into a non-human animal. The work of Liceti led to a return to prominence of the Aristotelian view that birth defects were errors of nature, formed when nature does not reach its goal. False conceptions such as moles and sooterkins were conceptually similar in this respect - both arose if the normal process of development failed. The formless mole was, as Aristotle had proposed, the result of failure of the semen to 'concoct'. The concepts of seminal and foetal degeneration reflected an increasingly sophisticated view of developmental processes as hierarchical. In this light the theory that humans could give birth to animals represents not simple credulity but theoretical recognition that the conceptus can follow alternative developmental pathways that are in part environmentally determined.<sup>43</sup>

References and Notes

- 1 John Maubray, *The female physician, containing all the diseases incident to that sex...To which is added, the whole art of new improv'd midwifery.. together with the diet and regimen of both the mother and child*, London, J.Holland, 1724, p. 373.
- 2 John Cleveland, *A Character of a Diurnal-Maker*, London, 1654.
- 3 Jane Sharp, *The Midwives Book. Or the whole ART of Midwifry discovered*. London, Simon Miller, 1671, p. III. Other examples of women giving birth to animals are to be found in; Ralph Josselin (ed. E. Hockliffe), *The Diary of the Rev. Ralph Josselin, 1616-1683*, London, Camden Society, 1908, p. 32 and in the ballads *The Wonder of Wonders, or, the strange Birth in Hampshire and True Wonders, and strange news from Rumsey in Hampshire...*, both c.1675, reprinted in H.E. Rollins, *The Pack of Autolytus; or, strange and terrible news of ghosts, apparitions, monstrous births, showers of wheat, judgments of God, and other prodigious and fearful happenings as told in broadside ballads of the years, 1624-1693*, Cambridge, MA, Harvard University Press, 1927, pp, 188-9, 191-4. Older accounts of sooterkin-like creatures include Caspar Peucer, *Commentarius de praecipuis divinationum generibus...*, Wittenberg, 1553, p. 326 and Stephen Batman, *The Doome Warning All Men to the Judgement...*, 1581, London, Ralphe Nubery, pp. 363,412.
- 4 'Philaethes' or A Lover of Truth and Learning, *The Sooterkin Dissected. In a letter to John Maubray, M.D. wherein it is clearly prov'd, I. That there never was such an Animal in theWorld. II.That God never made it. III.That the Devil cannot make it. IV. That it is Impudence to assert it. V That it is Stupidity to believe it. VI. That it is a mere Fiction of his own Brain.VH.That it is contrary to the Opinion of the most learned Physicians and Philosophers in our Days, who maintain the Truth of Univocal Generation*, London, A. Moore, 1726.
- 5 By the late seventeenth century, *sooterkin* had become a humorous term for an abortive or misconceived enterprise.The earliest example of this usage that I have been able to locate is in Alexander Brome's (1620-1666) satirical poem *Bumm-foder*, published in 1660. The Oxford English Dictionary gives further examples from Samuel Butler and Jonathan Swift.
- 6 For recent accounts of these cases see Jan Bondeson and Arie Molenkamp, 'The Countess Margaret of Henneberg and her 365 children' *Journal of the Royal Society of Medicine* 1996, vol. 89, pp. 711-6 and Jan Bondeson, *A Cabinet of Medical Curiosities*, London, I.B.Tauris, 1997, pp. 122-43.
- 7 'Monstrum est omne id, quod praeter cursum & ordinem Naturae apparet;Velut infans biceps, vel qui habet tria aut plura brachia seu alia membra superflua mutila vel manca. Prodigiorum est, quod prorsus contra naturam venit, velut si mulier pariar brutum, sive sit quadrupes, aquatile, volatile, reptile, sive prodigiosum aliud': Francois Bouchard, 'Infante monstroso Lugduni in viam publicam die V. Martii A. MDCLXXI. Exposito' *Miscellanea Curiosa* 1672, vol. 3, pp. 14-16.
- 8 For contrasting examples of the humane treatment of human monstrous births in the popular literature of Elizabethan England see:A.W. Bates,'Birth defects described in Elizabethan ballads' *Journal of the Royal Society of Medicine* 2000, vol. 93, pp. 202-7.
- 9 Philaethes, *op. cit.*, pp. I 1, 14, 24.
- 10 Giovanni Battista della Porta, *Natural Magick...in twenty bookes*, London, for Thomas Young and Samuel Speed, 1658, book 2, p. 27. On the spontaneous generation debate in general see Henry Harris, *Things Come to Life. Spontaneous Generation Revisited*, Oxford, Oxford University Press, 2002, especially pp. I -8.The distinct and complex debate on whether the first humans arose spontaneously has recently been discussed by Matthew R. Goodrum in Atomism, atheism, and the spontaneous generation of human beings: the debate over the natural origin of the first humans in seventeenth-century Britain' *Journal of the History of Ideas* 2002, vol. 63, pp. 207-24.
- 11 James Rueff, *The Expert Midwife, or an Excellent and most necessary Treatise of the generation and birth of Man...*, London, E.G. for S.E., 1637, p. 140. Edward Fenton, *Certaine secrete wonders of Nature...*, London, H. Bynneman, 1569, fol. 12r, wrote that: 'women performing the desire of the fleshe being in their *Sanguine menstruate*, bring forth these monsters.'
- 12 Pliny the Elder, *Historiae Naturalis* book 28, ch. 23 gives an extensive account of the harmful effects of menstruating women. A rich source of material of the continuing tradition of menstrual taboo in Medieval Europe is *De Secretis Muiierum*, written c.1400 by a disciple of Albertus Magnus: see Helen Rodnite Lemay (ed. & transl.) *Women's Secrets*, New York, State University of New York Press, 1992, pp. 32-47, 75, 89, 96, 129-32, 134. Monica H. Green, 'The transmission of ancient theories of female physiology and disease through the early middle ages' PhD, Princeton University, 1985, examined the classical basis of Medieval concepts.
- 13 On the concept of 'menstrual regulation' see Etienne van de Walle and Elisha P. Renne, *Regulating Menstruation: Beliefs, Practices, Interpretations*. Chicago, The University of Chicago Press, 2001.

- 14 William Harvey, for example, held this Aristotelian position, see his *Disputations Touching the Generation of Animals* (transl. Gweneth Whitteridge) Oxford, Blackwell, 1981, pp. 374-90.
- 15 2 Esdras 5, 8: 'and menstruous women shall bring forth monsters.'
- 16 G. Havers (transl.), *A General Collection of Discourses of the Virtuosi of France...*, London, Thomas Dring and John Starkey, 1664, p. 185.
- 17 Quoted in Palmer Findley, *Priests of Lucina. The Story of Obstetrics*. Boston, Little, Brown and Co., 1939, p. 81, his translation.
- 18 della Porta, *op. cit.* book 2, pp. 28-9.
- 19 [Guillaume Mauquest de] La Motte (transl. Thomas Tomkyns), *A General Treatise of Midwifry: Illustrated With upwards of Four Hundred curious Observations and Reflexions concerning that Art*, London, for James Waugh, 1746, p. 56.
- 20 Hilary Marland (ed. & transl.), 'Mother and Child Were Saved.' The memoirs (1693-1740) of the Frisian midwife Catharina Schrader, Amsterdam, Rodopi, 1987, p. 84.
- 21 Jacques Gelis, *History of Childbirth. Fertility, pregnancy and birth in early modern Europe*, Polity Press, Oxford, 1991, p. 259. As sooterkins had a well-defined structure it is more likely that macerated twin foetuses or chorangiopagus parasites were interpreted in this way.
- 22 La Motte, *op. cit.*, p. 24.
- 23 Nicholas Remy (ed. Montague Summers, transl. E.A. Ashwin), *Demonolatry*, Secaucus, NJ, University Books, 1974, p. 21.
- 24 Except for the extremely rare possibility that one of dizygotic twins is a mole. A statement by Francois Mauriceau in his *Traite des Maladies des Femmes Grosses, et de celles qui sont accouchees...*, Paris, Chez l'Auteur, 1681, pp. 109-10 that 'Sometimes there is a Child together with a Mole' was based on an anencephalic child in which the *area cerebrovasculosa* was referred to as a mole. This however was a non-standard use of the term.
- 25 *Ibid.*, p. 106.
- 26 Francois Mauriceau (transl. Hugh Chamberlen), *The Diseases of Women with Child, and in Child-bed: as also the best Means of helping them in Natural and Unnatural Labours. With fit Remedies for the several Indispositions of New-born Babes...*, 3rd edn, London, for Andrew Bell, 1697, p. 42.
- 27 Rueff, *op. cit.*, p. 138.
- 28 Mauriceau (transl. Chamberlen), *op. cit.*, p. 26.
- 29 *Ibid.*, p. 41.
- 30 *Ibid.*, p. 43.
- 31 See Jan Bondeson, *The Feejee Mermaid and Other Essays in Natural and Unnatural History*, Ithaca, Cornell University Press, 1999, p. 199.
- 32 *Problems* 878a, 18-24. Not the work of Aristotle. The earliest edition was printed in 1475 in Rome.
- 33 Pare, *op. cit.*, p. 5. See also Robert Hole, 'Incest, consanguinity and a monstrous birth in rural England, January 1600', *Social History* 2000, vol. 25, pp. 183-99.
- 34 On the life of Liceti see J.C.F. Hofer's article in *Nouvelle Biographie Generate*, Paris, Didot, 1860, pp. 132-6 and on his work on monstrous births A.W Bates, 'The De *Monstrorum* of Fortunio Liceti: a landmark of descriptive teratology' *Journal of Medical Biography* 2001 vol. 9, pp. 49-54.
- 35 This opinion was based on Aristotle, *Generation of Animals* 769b 10-25: 'The likeness of monstrosities to animals is merely resemblance. Their differing gestation periods prevent mixtures of one animal in another.'
- 36 *Ibid.*, pp. 191-2. Liceti was a supporter of the classical theory of spontaneous generation, as shown by his *De Spontaneo Viventium Orto*, Vicenza, 1618. He also accepted the viability of animal-human hybrids (a rare point of disagreement with Aristotle) which he attributed, as had Pare and others, to bestiality.
- 37 Fortunio Liceti, *De Monstrorum Causis, Natura, & Differentiis*, Padua, Paul Frambott, 1634, p. 191.
- 38 Though Aristotle does not give exact times. See his *Historia Animalium* 583b 10-20.
- 39 Bayle, 'Dissertationes physicae in quibus principia proprietatum in mixtis, aeconomia in Plantis & animalibus, causa & signa propensionum in homine &c. demonstrantur', *Journal des Savans* 1677, pp. 161-3.
- 40 'Praegnantem enim operari per multam apprehensionem, atque foetum nonnunquam transformare omnio, imo ab humana natura in belluinam [sic] transfigurare...': Andreae Low, 'Foetus, qua caput, monstrosus' *Miscellanea Curiosa* 1690, series 2, vol. 9, pp. 200-2.
- 41 Joyce F. Salisbury, *The Beast Within: Animals in the Middle Ages*. New York, Routledge, 1994.
- 42 Erica Fudge, 'Monstrous acts: bestiality in early modern England' *History Today*, 2000, vol. 50, pp. 20-5.
- 43 Aristotle's *Generation of Animals* pointed the way to this: see book 3, ch. 2.

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Containing all the  
DISEASES incident to that SEX,  
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*Degrees* of DANGER, and respective  
*Methods* of PREVENTION and CURE:  
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*New improv'd* MIDWIFERY;  
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and particular *Directions* for *lying Women*, in all  
*Cases* of *Difficult* and *Preternatural* BIRTHS; to-  
gether with the *Diet* and *Regimes* of both the  
MOTHER and CHILD.

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By JOHN MAUBRAY, M. D.

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—————*Opiferaq; per Orbem*  
Dicor, ————— Ovid. Met.

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*Ball*, in *St. Paul's-Church-Yard*. 1724.

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Title page of Fortunio Liceti's *De Monstris*



Man-midwives examine Mary Toft in Hogarth's *Cunicularii*. Maubray, fourth from the right, is exclaiming 'a sooterkin'