Mary Shepherd and the Causal Relation

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Part One: Context

CONTENTS 3

Part One gives context to the life of Mary (Primrose) Shepherd. It we aves the stories of her ancestors and her own stories into a wider social and historical context. The aim is to evoke a world from which to mark the emergence of Mary Primrose, Scotland's first female philosopher. 4 CONTENTS

Chapter 1

God and the King: The Primrose Ancestry

Whether or not we embrace our heritage, we are defined by it. This was no less true two hundred years ago than it is today. It was especially true for Mary Primrose, Scotland's first female philosopher, who was born into the Scottish aristocracy in 1777. The Primrose family, like others of its class, was focussed on securing its social standing. To this end, family estates, heirlooms, fine furnishing, deeds of title, and the like were of great importance. Most telling of all, however, was the family portrait. Mary's father, Neil Primrose, saw to it that his own family's stature was properly preserved for the sake of posterity.

The 1788 Nasmyth painting of the Primrose family balances two essential elements in the family portrait; Barnbougle castle and the members of Primrose family itself. In the portait, a ten year old Mary Primrose looks askance toward her father, Neil Primrose, 3rd Earl of Rosebery, who stands at the center of the portrait with his young heritor, Archibald Primrose. Holding Archibald's hand, Neil Primrose points across the drum sands toward Hound Point — perhaps to the lands of Primrose from which the family took its name. For the rest of the portrait, there is Neil's dutiful family — his wife, nee Mary Vincent, his eldest daughter, Charlotte, his younger daughter, Arabella, and the youngest child of the family, Francis. The only minor blemish to marr the portrait is the spot where the tiny and short-lived Hester Amelia was painted out.

At the time of the Nasmyth family portrait, Barnbougle was, by Scottish standards, a relatively new acquisition. Indeed, the castle had been in the hands of the Primrose family for just over a century.² The title had been purchased in 1662 by Archibald Primrose, Mary's great-great grandfather, whose ancestors had, for some time, been faithful servants of the Stuart monarchs. The property

¹Henry Primrose (b. 1490) and his immediate descendants were associated with 'Culross'. The lands of Primrose, near Inverkeithing, were associated with a Benedictine Abbey in Dunfermline, Fife. A few vital statistics record a Primrose family in Culross, Perth; however, the vast majority record a Primrose family in Culross, Fife.

²In Celtic, Barnbougle means 'the point of victory of strangers'.

came with a history of its own, however, and Barnbougle's picturesque setting was not the whole of its charms. In fact, the story of the medieval castle was tied to local superstition and legend. According to one account, an original owner, Sir Roger Mowbray, was killed on crusade, leaving behind a dog whose ghost haunts Hound Point.³ In addition, the Mowbray family was rumored to have shipped contraband directly into the castle cellars. Evidently a colorful lot, when Sir Robert Mowbray lost title to the estate in 1620 'through debts and other misfortunes', his demise touched the hearts of many.⁴ One local item, for example, had it that Mowbray's direct representative was 'still in the parish, but reduced to the condition of a common servant' [Robertson, 1799, vol. I, p. 239].⁵ Whatever the circumstances of the Mowbray demise, their loss would be the Primrose family's gain.

The Nasmyth portrait is but one of the many Primrose family portraits that would have been familiar to Mary Primrose in her youth. There were other portraits as well, including individual portraits of earlier ancestors such as the first and second Earls of Rosebery, both of whom had been integral to the family's rise to prominence. Several family portraits were doubtless missing from the castle halls. It is unlikely, for example, that a portrait of the second Earl the reckless 'black sheep' of the family who had lost a great fortune — graced the halls of Barnbougle in Mary's day. Nor is it likely that there were portraits of the very early Primrose ancestors, individuals who had risen to considerable prominence as legal and religious advisors to King James VI. Indeed, the family's initial rise to prominence had been directly tied to support for James VI's unpopular doctrine of the Divine Right of Kings. But this important bit of family heritage would doubtless have been better left unspoken in the late eighteenth century Scotland. It is no less true, however, that the Primrose family had been firmly entrenched in Scotland's hereditary-based power structure well before Archibald Primrose became 'Laird of Barnbougle' in 1662.

The first Primrose to rise to prominence under King James VI was Gilbert Primrose M.D., principal surgeon to the King. This Gilbert Primrose wrote several medical texts. However, he seems to have achieved less notoriety than his son, Gilbert Primrose D.D.. This highly educated and articulate church Minister is remembered for his loyalty to the ecclesiastic policies of King James VI. Those ecclesiastic policies of the day were based on an attempt to moderate and unite Protestantism. The policies were disliked by many Protestants, including Scotland's infamous Presbyterian leader, Andrew Melville, who saw the proposed moderatism as a threat to Presbyterianism [Mullan, 1986, pp. 167–168]. ⁶ Primrose, like others involved with the church, fell into difficulties while

³The story is from Scotland's Online Gazeteer for Dalmeny!

⁴Four centuries after the original charter was transferred, Barnbougle was still referred to by some as 'the home of the Mowbrays'. Graham Holton writes that, 'Until the 19C, the [Primrose] family continued to live in Barnbougle Castle, the home of the Mowbrays, situated on the shores of the Forth' [1980, p. 5].

 $^{^5}$ James Scott's article on Dalmeny in the statistical account of 1845 repeats the story [1845, vol. II].

⁶In an effort to minimize religious and political conflict, King James VI is said to have favored a sort of 'Armenian solution' (this refers to the policy of 'Armenian moderatism',

defending his own church and nation in France. Primrose was lucky enough to gain the protection of King James VI, and upon his return to Britain, went on to become 'a great favourite' of the King. He is remembered for his published tracts on reformed religion and for his loyalty to the King's interests in disputes with Roman Catholic Priests.⁷ Though none of his direct descendants rose to the same level of prominence, Gilbert Primrose D.D., became one of His Majesty's Chaplains in Ordinary, and was awarded the degree of D.D. from Oxford, and a canonry of Windsor. ⁸ Though the doctrine of Divine Right grew exceptionally unpopular, the privilege of distribution rights to God and the King were considerable, and the Primrose family's support of the Stuart

named after the Dutch professor Jacob Arminius) [Mullan, 1986]. The 'Armenian solution' involved downplaying the extent and scope of ideological change and dropping the Calvinist doctrine of predestination. The confrontational Melville, an outspoken critic of King James VI, was eventually imprisoned in London Tower in 1607. Gilbert Primrose was among those clergy to appeal to the King's generosity for Melville's release.

⁷Primrose twice ran into difficulties in France. In 1603, his Hugenot patron, Monsieur de Mirambeau, suspected him of harboring connection with the 'cult of images' [????, MDCXXI]. Primrose was transferred to Bordeaux. Later, in 1617, Primrose found himself in deep trouble with the Jesuits. He had been 'called upon' (By whom, we do not know [Primerose, 1617, p. C2]) to write a reply to Cardinal Sourdis, Archbishop of Bordeaux, whose Pastoral Letter denied the civic and religious authority of parents over children in the decision to become Monks. In Jacob's Vow Primrose disputed Sourdis' claim that the Scriptures counsel a monastic life of the Catholic sort and the Catholic doctrine of monastic succession, charging that many High Priests, Bishops and Popes had been 'Idolaters, Hereticks and Socerers'. Such charges were bound to cause immense difficulties with the Jesuits [Primerose, 1617, bk.I, ch. VII, p. 37]. In 1623, Primrose was banished from France altogether. Primrose credited his good fortune on his return to Britain to the support of the Marquess of Hamilton. In this short passage, Primrose recalls his experience of being censured for holding certain religious and political convictions:

I cannot omit that which toucheth my self: For being banished from France for the Gospell of Christ, and for my nation's sake, and coming to his Majesties Court, where like unto Endimion after his long sleepe, I saw nothing but new faces, and seemed to my self as a man fallen out of the Cloudes; your Honour embraced me with such kindness and humanitie, and recommended me to his Majestie with such affection that I should be justly condemned of ingratitude, if I did ever forget it [Primrose, 1625, p. A3].

⁸Gilbert Primrose D.D.'s son, James Primrose, became a physician. He is remembered for his mistaken rejection of Harvey's theory of blood circulation. The second son, David, carried on his father's ministerial vocation with the French Church in London. This latter Primrose may be the author of the 1625 pamphlet entitled Scotland's Complaint Upon the death of our late Soveraigne King James of most happy memorie.

Gilbert Primrose D.D. was not the only son of Gilbert Primrose M.D. with connections to King James VI. Mary Primrose's great-great grandfather, James Primrose, became Clerk to the Privy Council under King James VI. As Privy Council Clerk, James Primrose was not merely entrusted with secrets of state. In 1616, he obtained exclusive publication rights to a catechism on high prerogative entitled God and the King. The text teaches the absolute authority of the King, and was made mandatory at all educational levels. For those who could not read, there was an instructive portrait on the frontspeice of the book. The figure of King James VI is shown showered by the rays of the sun. the sun itself has the word 'God' inscribed upon it. Between the sun [God] and King James VI is the further inscription 'By me Kings Raigne'. Hence, the picture shows a direct link from God to the King. The oath, the text implies, will help to preserve civil order by extinguishing 'the AEgeptian darkness of Popery' [James, 1616, pp. 14–15].

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monarchy brought good for tune. 12

The personal good fortune of the Primrose family aside, the Scottish nation, it seems, was in much rougher shape by the mid-seventeenth century. It seems to have been beyond the skill of King James VI and his advisors to successfully marry together Armenian moderatism and Divine Right. When Charles I acceded to the Throne, he attempted to restore the Episcopacy. Following this, attitudes toward the Stuart monarchy became decidedly hostile. 13 Ultimately, the religious controversy ended in the declaration of a Scottish National Covenant in 1638. The signatories resolved 'constantly to adhere unto and defend' Presbyterianism. Hence, rather than achieving a moderate form of Protestantism, Stuart rule had fostered religious opposition, and this opposition had become more deeply entrenched than ever. In 1643, a commission comprised of representatives from Scotland's General Assembly, a Westminster Assembly of Divines, and Commissioners from the English Parliament met against the King's will — in Edinburgh [Earl of Middleton, 1661]. ¹⁴ The general will underlying the Assembly seems to have been one of reclaiming civil and religious freedoms — in opposition to the sentiments expressed in documents such as God and the King, sentiments that were rapidly on the decline in Great Britain.

Given the longstanding service of the Primrose family, and the political system under the Stuarts, it is no surprise to find Archibald Primrose, great-great grandfather to Mary Primrose, succeeding his father as Clerk to the Privy Council in 1641. By the mid-seventeenth century, the Primrose family was well established in the power structures of Scotland. As opposition to Stuart rule began to mount, the nature and demands of royal service underwent rapid change. Archibald Primrose followed the Marquis of Montrose in supporting Charles I, and when Charles I was overthrown, Archibald Primrose was, along with other royalists, taken prisoner at Philiphaugh. Spared his life by the Marquis of Argyll, Primrose's loyalty to the Stuarts proved to be a winning cause [Scott, 1845, p. 97]. In 1651, Charles II awarded Archibald Primrose a knighthood. Following the restoration, documents such as God and the King were

 $^{^{12} {\}rm James}$ Primrose's daughter, Alison Primrose, married George Heriot, Goldsmith and Jeweller to King James VI.

¹³Charles I introduced various Episcopal Acts and founded the See of Edinburgh in 1633. In 1637, he introduced the Scottish Book of Common Prayer. The book was singularly unpopular and was quickly dubbed 'Romisch superstition'.

¹⁴The Westminster Assembly devoted much effort to two main aims: (1) It worked to integrating a Calvinist form of Predestinarianism into the articles of the Westminster Confession, and (2), it established a personal relationship with God, unmediated by either a royal Father figure or the Pope as the symbolic basis of religious devotion.

God alone is Lord of the conscience, and hath set it free from the doctrines and commandments of men which are in anything contrary to his word or beside it, if matters of faith and such commandments out of conscience is to betray true liberty of conscience; and the requiring of an implicit faith and an absolute blind obedience it to destroy liberty of conscience and reason also [Mitchell and Suthers, 1874, pp. 1xx–1xxi].

 $^{^{15}}$ If popular recollection of Sir Archibald's character and deportment reflect any measure

replaced with an official legal constitution setting out the rights and responsibilities of the monarch and his subjects. A new constitutional document, *The Lawes and Actes* of 1661, was edited by the then Clerk to the Privy Council, namely, Sir Archibald Primrose. Ostensibly a new beginning for the Stuarts in post-Commonwealth Britain, *The Lawes and Actes* were extracted from records of Parliament. However, in places, the new constitution came close to a restatement of the doctrine of Divine Right. Despite the fact that the Stuarts attempts to govern continued to grow in unpopularity, *The Laws and Actes* of 1661, would help seal the happy fate of the Primrose family. In 1662, Sir Archibald Primrose firmly established the succession of the Primrose family, purchasing title to Barnbougle castle in 1662. Accordingly, Sir Archibald, the first Laird of Barnbougle, would have had his portrait displayed with all due honour.

By the late seventeenth century, the unpopularity of the Stuart monarchy would have made a public display of early Primrose ancestors unlikely. Primrose family allegiances grew somewhat complicated in the late seventeenth century, around the time of Britain's so-called 'Glorious Revolution'. King Charles II's son and successor, King James II, appeared to insist on both Catholicism and Divine Right, and his will was seen as provokingly contrary to the ideals of post-Commonwealth Britain. What the British now wanted was a government

of truth, the honor was well earned: Throughout the changes of that troublesome period, he maintained so high a character for integrity and wisdom, as to have exercised immense influence over the destinies of his country, whose welfare he had deeply at heart'. In addition, Primrose is said to have possessed 'a great measure of sagacity and prudence, with expedients always ready for every difficulty'. [Scott, 1845, pp. 97–98] [Parish details - both Robertson and Scott]

¹⁶In one Act, we find a statement mourning the demise of Divine Right.

Yet, such has been the madness and delusion of these times, that even Religion itself, which holds the Right of Kings to be Sacred and Inviolable, hath been pretended unto, for warrand of all these injurious Violations and Incrachments, so publickly done and owned, upon and against, His Majesties just Power, Authority and Government...[Earl of Middleton, 1661, Act XV, p. 38]. [Act Rescinding and Annulling the pretended Parliaments, in the years, 1640, 1641, &c.]

In another, the 'Act for taking the Oath of Allegiance, and asserting the Royal Prerogative', we find a new and improved Oath of Allegiance, complete with echoes of *God and the King*.

For testification of my faithful obedience to my most gracious and redoubted Soveraign, Charles, King of Great Britain, France and Ireland, Defender of the Faith, &c. Affirm, testifie and declare, by this my Solemn Oath, That I acknowledge my said Soveraigne only Supreme Governour of this kingdom, over all Persons and in all Causes; And that no Foreign Prince, Power or State or Person Civil or Ecclesiastick, hath an Jurisdiction, Power or Superiority over the same; And therefore I do utterly renounce and foresake all Forreign Power, Jurisdictions and Authorities; and shall at my utmost power, defend, assist and maintain His Majesties Jurisdiction foresaid, against all deadly, and shall never decline His majesties Power and Jurisdiction, as I shall answer to God [Earl of Middleton, 1661, Act XI, p. 18]. 17

Given the existing controversies and power struggles between supporters of the Commonwealth and royalists, *The Lawes and Actes* may have sounded like too much of a reinstatement of the doctrine of Divine Right — a doctrine that by this time had been rejected many times over by the people of Britain. In retrospect, it is easy to see that the Stuart's days were numbered.

that would respect the principle of compromise between Parliament and the monarchy. A crisis shortly ensued, and even those with royalist sympathies began to lose confidence in the Stuarts. There grew a conviction that a thoroughly Protestant succession would be needed to ensure good civil government in Britain. Blind allegiance to the Stuarts became impossible, and those among Britain's most powerful elite began to look elsewhere for a line of monarchs to succeed the Stuarts. In doing so, they turned their attention to Hanover, where a direct Stuart descendant, Mary, was married to the Protestant, William of Orange.

Revolutions tend to build new political affiliations. The Glorious Revolution was, in this respect, a case in point. Families such as the Primroses switched fealties from the Stuarts to the Hanovers. Archibald Primrose, son of the first 'Laird of Barnbougle', found himself in trouble with King James II. He succeeded in removing himself from difficulty by 'declaring Popish' before the Privy Council in 1688, but afterwards leaving to serve as Gentleman of the Bedchamber to Prince George. Like other Scottish statesman, he may have consoled himself with the thought that the art of the politician turns on an ability to find rational compromise between opposing tendencies. In truth, the only rational compromise at this point in time – and indeed, the only successful way into the future would have been through conversion to Hanoverian loyalties. Upon his return to Scotland, Archibald Primrose, now a firm supporter of William of Orange, was entrusted with the important task of collecting information about Jacobite activities for the new government. Apparently, his fealty to the new Hanoverian cause was richly rewarded. For, Mary Primrose's great-grandfather, Archibald Primrose, was soon created Viscount (1700) and the Earl (1703). One of the patents of creation refers explicitly to the services of Sir Archibald Primrose to King Charles I and II, and also to 'the good behaviour of his son' [Cokayne, 1984]. Ultimately, Archibald Primrose became one of the Commissioners of the 1707 Act of Union between England and Scotland.

Scotland's troubles did not end with the Hanoverian succession. Just as the new regime was beginning to take hold, a growing Jacobite movement advanced the Stuart claim to the throne. As political and religious unrest began to mount, the political climate grew uncertain. The Glorious Revolution had redefined the nature of the political union between Scotland and England, and given the magnitude of the changes, there was widespread discontent. Many Scottish nobles refused to swear allegiance to William and Mary. The country grew more divided than ever, and conditions were ripe for revolution. In 1745, Highland Jacobites (supporters of James II and his descendants) and nonjuring Episcopalians united against the newly emerging power structure. ¹⁸ As fears of civil unrest grew, so too did a general fear of ideological change, especially ones perceived to be detrimental to civil order. Sure enough, ideological challenge was on the rise, and they culminated through the mouthpiece of Edinburgh philosopher, David Hume, whose abstract philosophy seemed to pose

¹⁸The Primrose family, like many others, was divided on the issues. A cousin by the name of Archibald Primrose is remembered as a friend to the Jacobite cause. This Archibald Primrose was executed for treason in 1746.

unwelcome challenges to traditional authority.

What Hume had in fact done was to develop the implications of the empiricist ideas of John Locke – the intellectual hero of the Glorious Revolution. But, in doing this, what Hume seemed to have shown was that the empiricist ideas led to scepticism. Indeed, Hume's treatise ultimately challenged the rational and Scriptural foundations for belief in the existence of God. Denounced by his peers, Hume was denied the Chair of Moral Philosophy in 1744-45 and publicly charged with atheism. The political and intellectual controversy that unfolded in the wake of the Hume affair was insubstantial. The accusation of atheism presented for most of Edinburgh's establishment an open-and-shut case against Hume's candidature. For though there was support for freedom of conscience, the bounds of tolerance could not easily be made to stretch to a perceived case of atheism, which was what most of Edinburgh's leaders were prepared to charge against Hume. ¹⁹ Hence, there was no need to vet the philosophical and theological charges in any sort of debate. The charge of atheism was beyond smoothing over, and the political instability of the day meant that all parties would be especially cautious in the face of controversy touching on

The first thing one must understand about Scottish university appointments in the eighteenth century is that they were politicized, and that the politicians concerned with them were intent upon controlling every office of profit and honour in the kingdom. The more one controlled, the greater one's prestige, power and ability to manage affairs in ways useful to oneself and one's associates or masters in London. The privilege of managing Scottish affairs for the ministry in London had been sought since c. 1714 by two competing Scottish factions — the Squadrone and the Argathelians. Both were Whiggish in outlook, but their territorial bases and leaders were very different [Emerson, 1994, p. 1].

Despite the political nature of Scottish university appointments, it is unlikely that Hume's failure to secure a university position can be convincingly attributed political power struggles. Hume himself had friends in both Whig camps. Initially, he was strongly supported by several leading officials — and the politically powerful third Duke of Argyll in particular. However, it is likely that both Whig parties would have been afraid to give the appearance of sponsoring an 'infidel' and perhaps even fostering social and religious unrest. The Squadrone and Argethelian parties shared many of the same interests and concerns as candidate ruling Whig parties. Both parties badly needed to find church and university leaders who could articulate a vision that would bring together a fractured nation. That the Whig elite was involved in a power struggle does turn out to be important to understanding the story of Mary Shepherd, but it is not crucial to understanding the strange combination of values upheld by the Moderate literati or their success in Edinburgh. Both can be readily explained independently of a Squadrone or an Argethelian victory. Moreover, Hume's trials and tribulations can in part be explained in light of the exaggerated fears of civil disorder due to the Jacobite unrest. The real problem facing the various ruling families was how to prevent subversion of their hold over the Church, the town, and the College — the very institutions, and indeed the nation, through which they exerted their power. In the final analysis, the struggle over Hume's appointment was buried under layers of history and politics, so that neither the tenets of Hume's philosophy nor his accomplishments received much of a hearing. Given the pressing concerns of the day, a cry in support of a presumed atheist such as Hume would have been, to put it mildly, untimely. At some level, it must have been apparent to all sides, as well as to Hume, that the dangerous philosophy of 'heresy, deism, scepticism and atheism' would have to be quashed [Emerson, 1994, p. 10. This is George Wishart's description of Hume's philosophy.

¹⁹The struggle over Hume's candidature can be directly tied to a power struggle between competing Whig factions in Edinburgh. 'The "affair" at Edinburgh and the "project" at Glasgow; the politics of Hume's attempts to become a professor' [Emerson, 1994].

the foundations of religious and political belief.

Given their personal and political affiliations, the Primrose family might well have been among Hume's silent supporters.²⁰ Mary Campbell, sister of the fourth Duke of Argyll — the ruling family that had backed Hume's candidacy — was married James Primrose, the second Earl of Rosebery. [See Complete Peerage under Argyll.] Though the death of the second Duke of Argyll divided the House of Argyll, it is likely, that the Primrose family would have fallen in with the ruling Argathelians at this time. Among the important factors that cloud the issue is that the second earl, James Primrose, ran off with the maid. However, the low esteem in which James Primrose was held by his family suggests that they did not follow his rebellious lead.²¹ In any event, Neil Primrose, Mary Primrose's father, would have taken at least some modest interest in the outcome of the Hume episode. For he ended up as a student in the 1746 course on moral philosophy taught by the successful candidate, William Cleghorn. [Primrose, 1803–1868, vol. 28].

It would appear then, that the Hanoverian succession brought with it changing allegiances for the Primrose family. However, it seems undeniable that the Primrose family's rise to prominence began long before the days of the Hanoverian succession, with Gilbert Primrose M.D. and his sons, Gilbert Primrose D.D., and James Primrose. All were trusted advisors to King James VI. It is somewhat surprising then, to note their absence from among the family portraits and family history. Perhaps they never had their portraits painted. Or, perhaps the earlier family history presents something of a challenge. Whatever the explanation, it is nonetheless true that Mary Primrose's heritage framed her life and work in interesting ways. While not as direct a player in the political and religious controversies of her day as some, her life reflects her heritage of royal ties. Moreover, her work demonstrates a commitment to advancing those religious and political ideologies that she saw as fundamental to civic order. In an important sense then, the story of Mary Primrose begins even before her birth, with the circumstances and controversies that affected her ancestors, and with the context of Scottish culture, philosophy, and history into which she was born.

²⁰In the seventeenth century, the life of Sir Archibald Primrose was spared following the intercession of the 'Marquis of Argyle' after the battle of Philiphaugh. See [Scott, 1845, p. 97]. In the eighteenth century, the Primrose family was connected by marriage to the fourth Duke of Argyll.

²¹In the nineteenth century, Lady Mary Shepherd was a friend of a descendant of this house, Lord John Campbell, who became Baron and Lord Chancellor of England. Thus, the Primrose and Campbell families continued to have long-standing connections [Brandreth, 1888, p. 42].

Chapter 2

A Childhood in Dalmeny

Scotland's first female philosopher, Mary Primrose, was born on 31 December 1777 at Barnbougle Castle near Edinburgh. Little is known about Mary Primrose, and one of the few personal remarks to have survived about her is that she loved her birthplace, Barnbougle castle [Brandreth, 1888, p. 30]. Built in the thirteenth century, the castle is framed on one side by the Firth of Forth and on the other by the woodland parks of Dalmeny estate. The Primrose family connections and the storied past of the castle would doubtless have accounted for Mary Primrose's emotional ties to Barnbougle. However, legend aside, the realities of living in a medieval castle were far from rosy. In comparison with the many fine manorial homes in the area, the castle was small, cold, and damp. But for its 'fanciful situation within the sea mark, and for its embrazures presenting a strong front to the sea', the edifice was 'in no way remarkable' [Robertson, 1799, p. 239].

Whatever inconveniences the castle may have presented, Mary Primrose, like many of her generation, seems to have enjoyed an idyllic childhood. At least, the remaining clues that can be pieced together would suggest as much. The enchantment of Barnbougle and the natural beauty of its rural setting must have offset the limitations the five-century old dwelling. The 'charming park of Barnbougle', as one eighteenth century observer remarked, is 'characterised for its bold waving surface, composed of the finest heights and lawns, and also for the variety, elegance, and fancy, of the rides within its circuit' Robertson, 1799, p. 229. Indeed, its prospect was said to extend 'as far as the eye can reach', and the scenery was described as 'among the finest in Europe' Robertson, 1799, p. 229. Barnbougle was, in fact, a local landmark. Having enjoyed generations of ownership, the Primrose family had become attached to the property. On one account, 'The 3rd earl decided to have a new residence built slightly inland, the story being that one day he had just risen after dinner and was soaked by a large wave' [Holton, 1980, p. 5]. However, Neil Primrose could not bring himself to rebuild, and Mary Primrose and her siblings continued on as they had for

¹Mary Primrose spent most of her formative years at Barnbougle, with annual visits to Bixley Hall, in Norfolk, and occasional visits to London.

many years, dividing their days between London, Norfolk, and Barnbougle.²

In London, the family rented Holland House while the children were young. Holland House had recently passed into the hands of Charles James Fox, the prominent Whig leader who became a vocal opponent of the conservative policies of King George III.³ In later years, Holland House would gain notoriety as a social hub for the Whig party, [but by —?], Neil Primrose had decided upon Barnbougle as the primary residence for his young family. Indeed, to the eighteenth century aristocrat, the country held many attractions, both real and imagined, and children in wealthy families were often brought up 'in the fresh country air'. [Christie, 2000]. Country living was not merely a lifestyle suited for leisure, but essential for the healthy upbringing of children. The country was 'the place from which the nation's leaders must spring and the untainted paradise which must sustain them' [Christie, 2000, p. 2].

The Primrose family had several country homes, and as the years went by and Neil Primrose's family grew in number, Barnbougle became the primary residence.⁴ The countryside there, it turns out, was perfectly suited to the ideal of country living. One of several coastal parishes near Edinburgh, the view from the rising banks of the Forth encompassed 'numerous towns, villages, seats, [and] woody hills' [Robertson, 1799, p. 229]. All told, Dalmeny, along with the nearby parishes of Cramond and Queensferry, counted dozens of fine homes. Over the years, these had been either owned or rented by some of Scotland's most prominent families — families such as the Dundas, Erskine, Napier, Law, Stewart, Hamilton, Cockburn, Cleghorn, Blair, Campbell, Wilkie, Inglis, Chalmers, Bonar, Caird, Brewster, Jeffrey, and Pillans families.⁵ The legal profession was particularly well represented, and over the decades, local notables included Henry Erskine, Hugh Blair, Henry Cockburn and Francis Jeffrey. There were also prominent clergy, scholars, inventors, statesmen, professors, and university administrators. The accomplishments of the various individuals with connections to the area are too many and varied to describe in passing, and it suffices to say that the area attracted many of Edinburgh's gentry. They studied, worked and entertained in their country manors and town residences, commuting on the 'Great North Road' from Edinburgh, described as 'one of the pleasantest and most frequented in Scotland' [Wood, 1799, p. 225].⁶

The distinguished local community must have presented a stimulating and rich environment for a country childhood. Music, drama and reading were im-

²A new dwelling, Dalmeny House, was eventually built in 1814–1817 under the direction of Mary's brother, Archibald Primrose, the fourth Earl of Rosebery.

³The period in which Neil Primrose rented Holland House, then considered on the outskirts of London, was shortly following that in which the proprietor, Lord Kensington, had been forced to sell his own freehold. As with Sir Roger Mowbray and Barnbougle, Lord Kensington and his descendants were 'barred and extinguished' from any further claim to the property and title.

 $^{^4{\}rm The}$ family made annual visits to another country residence, Bixley Hall in Norfolk.

⁵The area was home to a dynamic intellectual and religious community by the midnineteenth century. See [Fraser, 1904; Grant, 1884].

⁶The entry 'Parish of Cramond' is extracted from an unpublished manuscript by John Wood entitled 'The Topography of Cramond Parish'. Cf. [Wood, 1794]. It is about seven miles from Dalmeny to Edinburgh.

portant aspects of country life, and several of the country homes in the area might easily have served as a 'court' to shelter artists, writers, musicians, and actors' [Christie, 2000, p. 2]. Like other children living in manorial country homes, Mary Primrose would have enjoyed these forms of cultural enrichment, as well as some of the special freedoms associated with country living. Children living in country manors 'had greater opportunities than many others to express their feelings and energy, in wild games which could take place in the fine landscapes and shrubberies their families owned' [Christie, 2000, p. 131]. Indeed, there is evidence to suggest that the Primrose children did in fact enjoy such a carefree and unspoiled childhood. Consider, for example, that only a strong sense of freedom and adventure could have led to the contemplation of the following mischief on the part of Mary Primrose and her siblings. On one occasion, Mary Primrose tattled that 'Lady Charlotte had declared her intention of driving a four-in-hand phaeton dressed in a drab coat with seven capes and a long whip' [Brandreth, 1888, p. 28]. Moreover, it was not beyond the pale for the Primrose girls to steal away to the local manse to engage Mr. Archibald Bonar, Minister of Cramond, in 'theological scéances' [Brandreth, 1888, p. 28]. This level of independence would have been unusual for Scottish girls of the period; however, the freer standards associated with country living and the social standing of the Primrose family would have mitigated the stricter rules appropriate for city living.

While country living had its freedoms, it also had its formalities and traditions. Religious observance, for example, was nearly universal. The church and parish history at Dalmeny had long been one of Episcopalian and Presbyterian rivalry, and this rivalry appears to have persisted throughout the eighteenth century. Neil Primrose was probably among the so-called 'Faithful Remnant' of Episcopalians who, having been turned out of St. Giles Cathedral, met in secret over a shop in Carubber's Close, and then later, in Charlotte Chapel on Register Street. Buried in the Rosebery aisle at Dalmeny Church, Neil Primrose's funeral service was held at the Episcopalian Charlotte Chapel, under the direction of

⁷It is unclear from the context of the original passage whether Mary, Charlotte, or both girls frequented the local manse. As a member of the General Assembly of the Church of Scotland and Treasurer of the Royal Society of Edinburgh, Mr. Bonar was linked to a controversy surrounding the election of John Leslie to the Chair of Mathematics at the University of Edinburgh. The theological séances with Mr. Bonar may well have had something to do with the Leslie controversy. However, given that Bonar and others in the area were involved in the movement that led to the Disruption of the Established Church of Scotland, the discussions may well have had to do with religion and freedom of conscience. In any case, the illicit visits demonstrate the strong sense of independence on the part of the Primrose children.

⁸[Holton, 1980, p. 5] And note: The grounds for religious division in Scotland were manifold — an important one being that Presbyterianism rejected both the ecclesiastic authority of the monarch and the Papal authority of Rome. Presbyterianism transferred authority directly into the hands of the presbyters themselves, and abolished the Bishopric altogether — an element of democracy popular with many Scots, though problematic for the ruling classes. Indeed, politically, the Presbyteries had played an important role in weakening traditional lines of power in Scotland. The fact that the Scotland's Episcopal tradition remained tied to the Church of Rome on matters such as apostolic succession and Papal authority was sufficient to drive a wedge between the Episcopal and Anglican Churches, and this division worked to the advantage of Presbyterianism.

Daniel Sandford, Bishop of Edinburgh. Whatever the particulars in Dalmeny, it is clear that various religious divisions prevailed. By the late eighteenth century, there were 143 seceders in the parish, including one clergyman.⁹

Whatever their emphasis, the sermons preached in the Dalmeny area during Mary Primrose's youth were probably quite stimulating and rich because both the Dalmeny and nearby Cramond had highly educated ministers. For those times when the mind did seek an escape, there was still plenty to fill the eye and the imagination. Dalmeny church dates from about 1160, and, like the Cramond and other local churches, it has a rich history. ¹⁰ Architectural details include an elaborately carved entrance door, 'with fabulous animals, figures and grotesque head, probably taken from the Bestiary, the product of credulous medieval imagination' [Chalmers, 1904]. The arches of the apse, chancel, and nave are decorated with Norman chevron carving, and mason's marks cut into floor slabs date the church to its medieval origins. ¹¹ Indeed, traditions of worship at the site extend from Celtic to Catholic to Episcopalian to Presbyterian.

By the late eighteenth century, the Episcopalian patronage of Mary's father, Neil Primrose, would likely have introduced tensions for local Presbyterians — the same kinds of tensions and conflicts reflected quite generally in the history of Scotland itself. As 'Laird of Barnbougle', Neil Primrose was legally required to provide funding for the Presbyterian parish and by the Patronage Act of 1712, was entitled to appoint parish ministers. In 1775, Neil Primrose invited Reverend Thomas Robertson to take up the charge of Dalmeny. The appointment was, by Robertson's own admission, controversial. Whether Mary

⁹This number represents about one in six parishioners. Robertson lists two clergymen in Dalmeny; one Established and one Seceder. Thomas Robertson represents the Establish Church of Scotland. [Robertson, 1799, p. 241]

¹⁰ The words 'Barnbougle' and 'Dalmeny' derive from the Celtic 'Bar na-buai-gall', which means 'the point of the victory of strangers' and 'Dumanie', which means either 'black heath' or 'fort of the monks'. See [Scott, 1845, p. 96] and [Robertson, 1799, p. 227]. 'About a mile to the west of Barnbougle Castle, on top of a high sea bank, is an ancient cairn, called by the country people the Earl Cairny, of a circular shape, 500 feet in circumference, and 24 high in the middle'. The cairn was probably raised as a sepulchral monument in the Celtic burial tradition [Robertson, 1799, p. 238]. The town of Cramond, which is very near to Barnbougle, was built around the remains of an early Roman fort. Dalmeny Church itself was built for Gospatric by masons from the Dunfermline Abbey. According to one source, there was a monastery of the order of the Holy Trinity at Dalmeny in 1297 [Scott, 1845, p. 101]. The church is ancient and beautiful, and described as 'a small but elegant fabric of Saxon architecture' and as 'one of the finest specimens of that style in Scotland' [Macgregor, 1857, p. 358].

¹¹The churchyard holds reminders of an earlier Celtic tradition, and, 'At the door of the church there is a stone-coffin of large dimensions, cut from a single block, and covered both on the lid and sides with hieroglyphics which cannot now be deciphered' [Scott, 1845, p. 102]. To this it is added that, 'Coffins of similar material, but of much simpler and ruder construction, have been found in other parts of the parish, one of which is still to be seen with its end projecting from the bank'.

¹² The Primrose family was on intimate terms with at least one Presbyterian dissenter, James Pillans, who became a 'tutor or 'Dominie' to the Primrose girls. In view of the history of religious conflict in Scotland, the Primrose family's diverse religious affiliations are probably significant. They would have suggested sympathy and sensitivity toward problems arising from religious divisions, and a willingness to treat religion as separable — to some extent at least —, from educational and political matters.

Primrose, baptised at Barnbougle Castle on January 8, 1778, was ever dipped into Dalmeny's baptismal basin — inscribed 'Dalmeny Kirk 1778' —, we can only guess. Nonetheless, we do know that the Primrose family attended some services at Dalmeny church, which stands as a living monument to the many forms of religious ritual and devotion witnessed on its grounds.¹³

Mary Primrose evidently became familiar with the conventions of Anglican worship through her sojourns in London. On one visit to London, Mary Primrose wandered into an Anglican Church, and found her religious experience suddenly expanded beyond the familiar limits:

Once — it was a Sunday — my mother heard the church bells and went as the sound led her. The bells stopped, and she heard the organ peal out. In the Scotch Church at Dalmeny there was no organ. She went in, and there sat through the service in wondering delight at the beauty of the music and the prayers of the liturgy. She got back safe to the inn, but missed her dinner. However, no scolding came, and her father seems to have sympathised in a kind of silent way [Brandreth, 1888, p. 34].

Given the conventions of Presbyterian worship, an organ would have been out of the question in the Dalmeny church (or other Edinburgh meeting houses of Mary Primrose's youth).

There is much evidence to suggest that Mary Primrose's childhood in Dalmeny was relatively peaceful and pleasant. Edinburgh society enjoyed a period of artistic and intellectual flourishing, and, as such, the spirit of the times was, for the most part, positive and open-minded. As daughter to the 'Laird of Barnbougle', Mary Primrose enjoyed many advantages. She received a fine education, much better than was generally accessible to children of her generation. She did not, for instance, attend the local parish school. In the late eighteenth century, Dalmeny's school, despite the small size of the parish, had about 50 to 70 students per year. The subjects taught there were typical, including English and writing, Arithmetic, Latin and French.¹⁴ For whatever reasons, whether due to church patronage or to the popularity of local teachers, the Dalmeny

¹³[Scott, 1845, pp. 101–102] The Dalmeny church has been dated as far back as the tenth or eleventh centuries, based on its resemblance to the church of Narcoide, which was built before the time of William the Conqueror. One description is as follows: It is a very elegant small fabric, all of cut stone, 84 feet long and 25 feet broad, except at the east end, where it contracts into a semicircle. The pediments of the principal doors and windows are richly carved, resting on single columns with Gothic capitals, and round the upper part of the building there is an embossment of carved faces, all dissimilar and of grotesque appearance. But the chief beauty of the church is in the interior, which has a striking effect on entering from the west, especially from the upper part of the gallery. The body of the church is divided into three parts by two semicircular arches, that over the chancel being so much smaller than the other as to render the perspective peculiarly pleasing. They are both richly ornamented with successive tiers of mouldings of a zigzag or starry shape.

¹⁴See [Wood, 1794, p. 221] and [Robertson, 1799, p. 235]. Scotland's Presbyterian ministers promoted the parish schools, which served as a means for parishioners to learn the Bible and helped to consolidate the influence of the Established Church. In addition, there were two private schools in the area, and, all told, about 200 children attended the local rural schools.

school developed a good reputation. The Reverend Thomas Robertson, himself a Fellow of the Royal Society of Edinburgh, remarked that, 'The purity of the air has, among other considerations, occasioned a great number of gentlemens sons to be sent as boarders to the parish school here' [Robertson, 1799, p. 230]. There were numerous girls in attendance at Dalmeny as well; the school log for 1792 shows that about one third of Dalmeny's students were girls. ¹⁵ Whether this statistic is representative of the educational opportunities generally available to eighteenth century Scottish girls is difficult to say. Indeed, it is hard to estimate the extent of the education available to girls in the parish school system. ¹⁶ But, in any event, as Mary Primrose's daughter reports, 'my mother was brought up chiefly at Barnbougle (though sometimes in London at Holland House), on the old fashioned Scotch plan with a Dominie — one Mr. Pillans' [Brandreth, 1888, pp. 25–26]. Thus, Mary Primrose was among a fortunate minority of Scottish girls to receive formal instruction from a 'Dominie' or tutor, and there is reason to think that they received excellent training at home.

Mary Primrose and her sisters were doubly fortunate. Not only did they have a tutor, their tutor, James Pillans, was an exceptional educator.¹⁷ Though the practice of engaging tutors to educate children of both sexes was commonplace among the well to do, the nature and extent of the Primrose girls' education, and the employment of a separate tutor for the girls was somewhat unusual.¹⁸ Another unusual aspect of girl's education was the decision to employ as tutor a man of strong Presbyterian convictions. This, and other evidence concerning the Primrose family, points to an open-minded and liberal educational environment.¹⁹ Apart from these exceptions, much about the educational pattern in the Primrose household was typical for its day. Hence, 'The education of children, at least during their early years, often took place within the country house

 $^{^{15}}$ [Parish of Dalmeny, 1792–1817] The Dalmeny school log for 1792 lists 27 boys and 17 girls.

¹⁶[Plant, 1952, pp. 13–18] On some accounts, the education of Scottish girls was quite limited, and upper class girls might split a typical day between such activities as sewing shirts, reading scriptures, writing letters, taking walks, and the occasional game or amusement. However, one has to wonder whether such accounts are entirely accurate. In addition to the Dalmeny statistics, one well-known Edinburgh teacher, James Mundell, lists 94 girls among his pupils between 1735 and 1761.

¹⁷[Brandreth, 1888, p. 26] The reference could be to the printer James Pillans (b. 1745) or to his father, Presbyterian dissenter, James Pillans (b. 1722). The former started his printing business in 1794. The latter was a contemporary of Neil Primrose (b. 1729). Brandreth's recollections of Pillans suggest that the James Pillans who tutored the girls was the elderly father of the printer. A grandson, also James Pillans, was a contemporary of Mary Primrose and her siblings. He later became a pioneer in the field of educational reform.

¹⁸According to Brandreth, [1888, p. 116], the boy's tutor was a man named Stockdale. he was 'a tall, rather stately looking man, with a large face, pink and white like a healthy child's, and in his later days, a shock head of white hair.' Stockdale, who accompanied Archibald and Francis to Cambridge, remained a personal friend of the family in later years.

¹⁹As James Pillans (b.1722) and Neil Primrose (b. 1729) advanced in age, it may have been difficult to keep up with the lively and bright Primrose brood. Given the authoritarian and paternal emphasis predominant in Scottish households, one would expect that both parents and tutors would have been stern disciplinarians. However, one gets the sense that the discipline in the Primrose household was softened by a love of learning and liberal views on education and religion.

itself. There was a common belief that private education by a tutor produced a more virtuous child' [Christie, 2000, p. 114]. Moreover, we might expect that Pillans, a religious man, was possessed of the sort of character though to engender good values. 'Tutors and governors were required by writers in the early years of the eighteenth century to be virtuous above other qualities' [Christie, 2000, p. 114]. Indeed though there are few descriptions of the elder Pillans, his religious and moral convictions are evident from the ones that remain. To wit, the Primrose girls described their own tutor as a 'descendant of the old Covenanters' who had 'himself had seen "Old Mortality" cleaning the inscriptions on their gravestones' [Brandreth, 1888, p. 26].²⁰ In any event, however curious the circumstances, the Primrose girls appear to have been subject to a rigorous and effective educational program by their ageing tutor.

Pillans may have been given to a little ranting about 'Old Mortality', but it was evidently in a spirit of egalitarian largesse and intellectual curiosity that he tutored the Primrose girls. He was an ageing man (probably between the ages of sixty-five and eighty) when he tutored the girls, and they appear to have regarded him with a mixture of fondness and humor [Brandreth, 1888, p. 26. Arabella Primrose, the youngest daughter, is said to have had little interest in scholarship, and to have taken up nothing 'but a sort of jocose kindly feeling towards the old tutor himself, — laughing at him gently' [Brandreth, 1888, p. 27. Such frivolousness does not appear to have been characteristic of Mary or Charlotte, and with these interested and serious-minded pupils, Pillans appears to have been an outstanding tutor. He took his role as educator to heart and engaged the imaginations of his pupils with wonderful stories of adventure and discovery: 'There was one account, that none would believe but my mother, of the first steamboat on an American river. Many years afterwards, a small steamboat was tried on the Thames, and then "seeing was believing" [Brandreth, 1888, p. 26]. It is also evident that Pillans approached the task of tutoring with considerable tact and commitment. He emphasised the basics, but encouraged the girls to pursue subjects to which they were naturally drawn. 'Mr. Pillans taught the girls Latin, for the basis of language, Geography, Mathematics, History, and besides, a vast deal of thinking upon the elements of Truth

 $^{^{20}}$ Another writer describes Mary Primrose's first tutor as 'a scholastic person, who believed in the inextension of the mind' [Fearn, 1828, p. 632]. Also, look into this: It is thought that James Mill was employed as a tutor sometime between 1790 and 1802. One account states that Mill 'had a tutorship in the family of a Scottish nobleman in East Lothian'. Another account suggests that Mill 'had been a corrector for the press in Edinburgh'. Alexander Bain reports that the name of the nobleman is not given but notes that the narrative is repeated in two places. One story is that Mill 'gave offence to the heads of the family by drinking the health at the table of one of the junior female members of the house,' and subsequently 'gave up his situation, and determined to trust to his pen and his own exertions.' A slightly different version has it that Mill 'threw up the appointment suddenly, owing to an affront given to him at a dinner party'. Specifically, Mill's pride was offended when he was 'motioned to leave the dinner table with the ladies'. It is interesting to note in connection with these accounts that the Pillans were in the tutoring and printing business. Perhaps the real version of the James Mill story has something to do with the Pillans family and the Primroses? You never know! In any case, Lady Mary Shepherd certainly knew James Mill in adulthood. See [Bain, 1882, pp. 27–29.

as to things in general. Out of it all each pupil 'took up' the portion which fell in with her own mind's natural working' [Brandreth, 1888, p. 26]. The two older Primrose girls, Charlotte and Mary, became keen scholars. Charlotte, the eldest daughter, who excelled in Latin and Mathematics, was often called upon to help with estate accounting. Mary, the middle daughter, took an interest in philosophy.

Though most of the particulars of her education are lost, we can safely gauge that Mary Primrose's youthful interest in intellectual matters was further encouraged by a culture of letters that existed among the five Primrose siblings. For, 'the five young people managed to live a very sociable brother and sister life together, with a good deal of love for books, talk, country roaming...[and] used to write each other long letters like essays, and reply punctually' [Brandreth, 1888, pp. 31–32]. This practice may have been encouraged in part for the sake of the two younger Primrose boys, although it seems that it was Mary who ended up the scholar in the family.

In addition to formal instruction and literary aspirations, the Primrose children had access to many books in the family library. An 1820 catalogue of the Primrose family library lists about 1000 volumes, a considerable number for any private library of the period. It seems to have been a difficult job to pry the young Mary loose from some of these books. On one journey from Scotland to London, Mary accompanied her father in his carriage, '...and by degrees took out of one pocket a volume of Milton, and out of the other Pope's translation of the *Odyssey*. After a time he took hold of her chin, and turning her head said in a kind of melting voice, 'Child, thee needn't keep at books whilst we're travelling — does your mother put such strict orders on you?' [Brandreth, 1888, p. 33]. If such comments are a fair indication, Mary Primrose took her education even more seriously than was expected of her. Indeed, in adulthood, she reflects upon her youthful efforts in a letter to Charles Babbage, recollecting the early origins of her analytic bent and interest in higher learning:

...I can truly say that from a very early age, I have examined my thought, as to its manner of reasoning in numbers; and from time to time have applied such notices to other reasonings, either for amusement or improvement; — indeed chiefly in order to chastise the vague, illusory, illogical method of reasoning admitted with every part of discourse, whether gay, or serious, & into each department of literature however important its object [Shepherd, 1825b].

Perhaps most significant of all for the intellectual development of Mary Primrose, was that she and her sisters were encouraged to learn the subjects required for higher education. This, along with the high quality of their educational instruction, must have played a significant role in shaping the direction of Mary Primrose's life. For Mary Primrose evidently applied herself to higher education in an unexpectedly devoted manner, at a time when there was no official support for or endorsement of higher education in women.

In view of the circumstances of her youth and education, and the general emphasis on Scottish philosophy and culture in her day, Mary Primrose's emer-

gence as Scotland's first female philosopher is not as surprising as it might at first seem. Indeed, the pursuit of philosophy was very much 'au courant' in Edinburgh by this time — so much so, in fact, that both the medical and the arts students at the Edinburgh College complained of a bias in the curriculum in favour metaphysics [Rendall, 1978, pp. 206–236]. Local literary societies, such as the Royal Society of Edinburgh, were now open to members of the business community and the class of literary gentlemen. When the Royal Society of Edinburgh met for the first time under the terms of its royal charter on June 23, 1783, its membership was drawn from the Philosophical Society of Edinburgh, but provisions were immediately made to extend the membership to members of the legal community and the gentry at the first meeting of the society. As the society unanimously resolved, 'That the Lords of Council and Session, the Barons of the exchequer for Scotland, and a select number of other gentlemen, should be invited to a participation of the Society's labours' [Royal Society of Edinburgh, 1788, p. 10].

A further consideration to keep in mind when considering the education of Mary Primrose is that the emergence of a culture of letters within aristocratic circles was not strictly confined to the male sex. Pioneers of educational reform such as Hannah More had promoted Liberal philosophies of education, and Britain had witnessed the emergence of a radical group of liberated, educated women known as 'blue-stockings'. These ambitious women had prevailed in the first half of the eighteenth century, and were called 'blue-stockings' because they shunned all form of ornamental attire and entertainment in favour of simple dress and serious-minded soirées.²¹ The blue-stockings took what was then considered a radical approach, although they did not aspire to scholarship in the same way as Mary Primrose. In spite of sometimes negative appraisal, the Bluestockings made an impact. It was thanks in part to such efforts that liberal views of education grew increasingly popular. While employed in Edinburgh as a tutor from 1798 to 1803, Reverend Sidney Smith noted that the predilection for metaphysics in Edinburgh's fashionable circles had extended so far as to include women. As Sydney Smith remarked of Edinburghers, 'They are so imbued with metaphysics that they even make love metaphysically. I overheard a young lady of my acquaintance, at a dance in Edinburgh, exclaim, in a sudden pause of the music, 'What you say, my Lord, is true of love in the aibstract, but — "here the fiddlers began fiddling furiously, and the rest was lost." |Bell, 1980, p. 20].' By 1804, when Sydney Smith had moved to London, scores of women were in attendance at his public lectures on moral philosophy. According to one observer, Sydney Smith 'cultivated the good opinion of the fair sex by warmly complimenting them on their natural talents and by urging them to devote themselves to substantial literary studies' [Bell, 1980, pp. 55–56]. Still,

²¹[Johnson, 1926] The most famous Bluestocking was Scotland's own Lady Mary Montague Wortley, but a 'Miss Primrose' is mentioned in a letter from Mrs. Carter to Mrs. Vesey dated from Spa on July 26, 1763 [Johnson, 1926, p. 269]. The reference could be to Neil Primrose's sister Dorothea. Dorothea Primrose appears to have sued her family and won the settlement in 1761. She married Sir Adam Inglis of Cramond in 1766, and died without issue at Bath in 1783.

it was not until the end of the nineteenth century that women began to apply themselves to literary studies in earnest, and to fight for the right to gain regular admission to the universities and to receive degrees. So despite the tendency toward educational reform, Mary Primrose's scholarly interest and the level of intellectual development was both precocious and rare in the late eighteenth century Scotland. 22

It remains difficult to get a clear and consistent picture of the extent and quality of the education available to most girls in eighteenth century Scotland. However, it is evident that Mary Primrose's educational experience were the exception rather than the norm. It seems reasonable to suppose that Mary Primrose's unusual opportunities for academic development were positively influenced by the intellectual flourishing in late eighteenth century Edinburgh. At the same time, it is well to remember that limitations in subjects crucial to higher learning were frequently imposed, so it is perhaps safest to say that educational opportunities for women in eighteenth century Scotland were varied.²³ One way or another, Scotland's relative stability and cultural climate enabled at least a few women, such as Mary Primrose, to overcome the barriers to higher education facing so many of their sex.

²²162 Bell:1980? In Edinburgh, James Pillans, grandson of the Primrose tutor, was among the leaders in educational reform movement. This James Pillans became Professor of Humanities at the University of Edinburgh, and devoted his career to educational reform and the philosophy of education. The majority of his publishing efforts addressed the subject of educational reform, and he made frequent trips to visit rural parishes in both Scotland and abroad, for the purpose of assessing the state of the education system. See the entry under James Pillans (1778–1864) in [????, 1975]. James Pillans Junior assessed the educational systems in various countries, and devoted much of his professional career to the subject of educational reform. In the 1830s, Pillans played an important role in giving advice to Parliament on the subject of educational reform. Alexander Grant writes of Pillans that 'Outside the University he did much good by promoting educational reform in Scotland. He was one of the first to advocate Governmental inspection of schools and the institution of Normal Seminaries.' See [Grant, 1884, vol. 2, p. 322]. See also [Pillans, 1856].

²³[Christie, 2000, p. 116] Mary Fairfax Somerville, is said to have studied mathematics at night, hiding her activities from her disapproving father. Mary Somerville went on to make important contributions in mathematics and science, and was a friend of Mary Primrose in adulthood.

Chapter 3

Hume and the Limits of Moderation

The second half of the eighteenth century was comparatively peaceful in Edinburgh. After decades of strife, roars of controversy and unrest subsided into tired rumbles. However, local controversies did not die out in entirety. Ten years after the Hume affair, the General Assembly of the Church of Scotland felt the need to unanimously articulate its 'warning against the infidel principles of Mr Hume' [Inglis, 1806, 89n]. Yet, in a strange way, both Hume and his philosophy became part of the very fabric of Edinburgh society. Some of Edinburgh's most prominent members were on intimate terms with Hume until his death in 1776, and through these channels, there grew to be an ongoing support for Hume and his work. This support took the shape of a humanistic appeal for tolerance an appeal that survived in Edinburgh long after the academic scandal surrounding Hume had blown over. The moderate stance was not, however, universally welcome. Conservative members in Edinburgh society tended to favored tighter social controls and restrictions than moderate leaders. However, fortunately for Mary Primrose, the underlying antagonisms between liberal and conservative elements in Edinburgh society rarely escalated into civil disturbance in the decades of her youth and young adulthood. Indeed, occasional rumblings and fears about civil unrest aside, the second half of the eighteenth century was a period of relative stability and prosperity for Edinburgh's upper classes.

During the youth and young adulthood of Mary Primrose, Scotland had settled into a comfortable period of cultural flourishing and economic growth. It was 'the golden age' of the Scottish Enlightenment, a time in which Edinburgh's moderate professors and men of letters played a substantial role in shaping the ideologies of the church, government, and university. Ideologically, these moderates presented what would be considered a 'liberal' stance — one based on

 $^{^1}$ Inglis writes that 'All parties in the Church, it should be remembered, concurred unanimously in the warning against the infidel principles of Mr Hume, which was given by the General Assembly 1755.'

compromise between the opposing tendencies of ruling interests. They advocated greater freedom of conscience, increased liberties for all, and conciliation in the face of controversy. Under William Robertson's administrative leadership as Principal of Edinburgh College and head of the affiliated Presbytery, the town grew increasingly independent, secular, and tolerant.

Robertson was one of Hume's supporters — and the acknowledged leader of the older generation of moderates. These so-called 'moderates' — William Robertson, John Home, Hugh Blair, Adam Ferguson, Alexander Carlyle, and others — devoted themselves to the promulgation of enlightenment ideals such as personal freedom of conscience. They supported, for example, Hume's right to free philosophical expression. At the same time, they rejected the claim that Hume's doctrine led inevitably to atheistic conclusions. Hence, the moderates 'esteemed a rational, polite form of Presbyterianism that would bridge the gap between John Knox and David Hume, between fanaticism and infidelity, between tradition and modernity. They emphasised the moral lessons of Christianity within a thoroughly Presbyterian framework and remained loyal, active members of their national church despite their other interests and activities' [Sher, 1985, p. 324].

It was not simply the moderate party's enlightened vision that held appeal; for the party's leader, Robertson, was skilled in averting conflict. In the years following the Hume controversy, Robertson arranged things at the university so that most of the chairs established at the College were in the sciences — a domain not generally thought to require theological advice.² In consequence, the avisamentum — by now regarded as a political instrument used for excluding or including candidates connected with one political party or another — was infrequently exercised and duplication of the Hume affair was forestalled. Nor did Robertson insist on the formal Westminster Confession of Faith, the oath of allegiance to the Presbyterian Church traditionally required of incoming candidates. Robertson's resistance to the Confession of Faith was not appreciated by religious conservatives: 'This test was constantly evaded in the University of Edinburgh, and notably so from the commencement of Robertson's Principalship (1762), but it still existed as part of the law of the country' [Grant, 1884, vol. 1, pp. 86–87. Such rumblings aside, the moderates continued to hold sway in Edinburgh.³ Indeed, Robertson knew how to handle controversy. He encouraged off-campus forums for controversial debate and discussion. Numerous literary and intellectual societies sprang into existence in Edinburgh, including, among others, the Select Society, the Philosophical Society of Edinburgh (which later became the Royal Society of Edinburgh), and the Pantheon Society. With the leadership of local intellectuals such as Hume, Carlyle, Ferguson, Smith and

²[Sher, 1985, p. 309] With regard to the avisamentum, Robertson's practice seems to have been to shift people around within the university in order to prevent the its exercise. Humanities positions were filled internally, so that newly vacant positions would be in the sciences. Eleven of the thirteen chairs created at University of Edinburgh between 1762 and 1859 were scientific or technical chairs, including chairs in areas such as astronomy, agriculture, technology and medicine.

³Edinburgh civil unrest and attack on Robertson in 'No Popery' affair of 1770's.

others, these societies were much in demand. As Hume wrote to Allan Ramsey, founder of the Select Society, 'Young and old, noble and ignoble, witty and dull, all the world are ambitious of a place amongst us...' [Greig, 1969, pp. 219–221].⁴ Since these literary societies were technically independent of the College, campus affairs could unfold smoothly. In sum, Robertson succeeded in drawing lines between institutional norms and civil freedoms in a way that appealed to the better judgement of his contemporaries. Thus, Robertson and his circle exerted an influence that established and promoted a tolerant culture and community consistent with the standards of the day.

By the time that Mary Primrose had reached young adulthood, many of the social and literary clubs of the older generation were coming to be perceived as either folding or beyond the point revival. Walter Scott remarked that, the old guard resembled ghosts 'sitting on their midnight tombs' occupied with 'deeds they have done and witnessed while in the body' Sher, 1985, p. 322. By way of contrast, the incoming generation of literati was a vibrant and diverse group, including not only clergy and professors, but also a substantial number of secularly-minded lawyers, men of letters, and merchants. They were, byand-large, students of William Robertson and his successor, Dugald Stewart. With few exceptions, they had thoroughly imbibed liberal enlightenment ideals. Their professors had encouraged them to pursue scholarly interests and to keep apace of new developments in their areas of interest. The cumulative effect of their education and milieu was an appetite for civil and intellectual freedoms exceeding that of their predecessors. Thus, as the older generation gave way to the younger, the complexion of the city and its leadership became increasingly secular and libertarian. This more radical generation of moderates, having an awareness of both practical and theoretical issues around freedom, were quick to rise to the defense of personal and civil rights.

The tendencies of the new generation of moderates would no go unchecked. In addition to the predictable conservative opposition, circumstances toward the end of the eighteenth century added complications to the political scene in Edinburgh. In particular, the ever present tensions between conservative and moderate leaders were exacerbated by fears that social unrest might spread from Continental Europe to Britain. For much of Britian was now looking to events on the Continent with horror. They had witnessed the overthrow of the French monarchy and nobility and the beginning of Robespierre's 'reign of terror'. With the growing fear to their advantage, conservatives began to point the finger at 'dangerous ideologies', warning that the same unrest and infidelity witnessed on the Continent could easily take hold closer to home.⁵ Thus, the conservative rhetoric urged caution in the face of dangerous political and religious ideologies, returning to the age-old themes of pernicious intellectual influences on civil order. Despite continual waves of attack on liberal ideals, Robertson and his

 $^{^4}$ David Hume to Allan Ramsey, April or May 1755.

⁵As part of this trend, it was at one point suggested that German illuminati had 'conspired to overturn the religion and government of their country, and who were to prepare their way by seizing on the Universities, and excluding Clergymen from the places of trust and influence which they occupied in those seats of learning...' [Playfair, 1806, p. 57].

followers generally succeeded in winning over popular opinion in Edinburgh.⁶ Unfortunately, in the long run, the commitment of Edinburgh's ageing moderate leadership would not be enough to quell the rising tide of fear. Evidence of political disaffection was mounting, and conservative anxiety was infectious.

Were the conservative fears completely unfounded? The evidence would suggest not. Long-standing social tensions in Scotland had been further complicated by rapid economic and social change; in particular, by the land reform movement and the developing Industrial Revolution. Undoubtedly these circumstances acted as influences on the social outlook of the times, and it is important to acknowledge them. To an outsider, this is how late eighteenth century Edinburgh society might have appeared:

The circumstances of the wealthy landed families — with their carriages, servants, and luxuries — would have stood in stark contrast with the conditions of the poor. Scotland was not a wealthy country, and the lives of most rural residents were grim. Adverse circumstances were largely due to the efforts of Scottish landowners to consolidate their estates. As landowners turned large portions of land to pasture and wood lot, Scotland's rural parishes entered a period of strife. Local economies changed, and parishes shrunk in size. The land enclosure movement increased the already considerable gap between landowners and tenants, so that even a meagre existence was out of reach for many of those who had previously worked the land. While the poor struggled to find adequate food and shelter, Edinburgh's rich families enjoyed luxurious surroundings and indulged refined tastes. By the late eighteenth century, Edinburgh was replete with the societies and soirées of a new and younger generation. Local personalities, some of whom were brilliant intellectuals, congregated at the homes of socialites such as Mrs. Fletcher and Mrs. Apreece. Hence, for the well-to-do,

⁶Their strategy was unique, if somewhat opportunistic. They upheld the values of the Presbyterian-Whig establishment, while standing firm on their commitment to intellectual freedom — a commitment that positioned them among the intellectual leaders of enlightenment Europe. Strategically, the approach was brilliant. Even as they came to wield considerable power in the General Assembly, the Town Council, and the College, they remained supporters and friends to the moderate cause. Their liberal stance and opposition to the 'persecuting spirit' was made clear through their support for Hume after his notorious exclusion from the University of Edinburgh. Through them, the larger issues around both Hume's philosophy and his failed candidature remained alive in Edinburgh for many decades to come. See [Sher, 1985].

⁷The population of Dalmeny dwindled from 1300 in 1750 to 900 in 1790 and then 765 in 1801 [Robertson, 1799, p. 232]. Dalmeny's Reverend Thomas Robertson speculated that 'depopulation appears to have been occasioned solely by one large district having been turned from tillage into pasture. This tract may consist perhaps of 1500 acres, upon which formerly, it is said, were fifteen or sixteen farmers; at present, and for some time past, there has not been one' [Robertson, 1799, p. 232].

⁸In Dalmeny, Local farmers had long lived from hand to mouth, with half of their wages paid in oatmeal, a small house and garden, the carriage of coal, and some food at the harvest. 'The people's diet was rather plain, consisting of oat-meal porridge, oat-cakes, pease-bannocks, barley broth, vegetables, potatoes, butter-milk and water while some were beginning to eat wheaten bread and drink small-beer. Very little meat was eaten and for luxuries there was tea and whisky' [Holton, 1980]. Holton's pagination is not continuous. This quote is taken from p. 7 of the manuscript or p. 1 of the section entitled 'Dalmeny Parish Details'.

⁹The Primrose family is likely to have shared in the extravagant parties and excitement

there were parties and gatherings. On such occasions, Edinburgh's elite would have enjoyed fine conversation, dancing, perhaps a toast or two, and some of Scotland's culinary delicacies.

The changing of the guard in Edinburgh, and the rising tide of fear of social unrest help to explain the bitter animosities and controversies that arose in Edinburgh around the turn of the nineteenth century. To many, texts such as Thomas Paine's Rights of Man— a critique Britain's monarchy and government — were evidence of a significant threat to the status quo. Paine had given voice to the injustices and circumstances of the lower classes. With less concern for the hardships of the poor and more concern for their own well-being, conservatives reacted with fury to Paine's publication. A good indication of this reaction can be found in an anonymous letter published in Scotland in 1792. The author's anger betrays a deep underlying fear of civil unrest. Against Paine, it is argued that, 'For an itinerant political quack to pretend to more sound sense and judgement than all the inhabitants of the British isles put together, and to dictate his own fanciful form of government to them, is in the highest degree assuming' [Dundas, 1792, pp. 3–4]. The author goes on to insist that a good citizen would petition Parliament rather than 'rouse a mob'. For, 'A man who endeavours to rouse a mob, is of all men the most dangerous to society; he must either have interested views, be mad, or infamously wicked' [Dundas, 1792, p. 19].

In the face of such attitudes, the tenor of Edinburgh's moderatism grew more conservative. Professor of Moral Philosophy, Dugald Stewart, endeavored 'to show that a zeal for liberty could be combined with a philosophically and religiously safe stance' [Jacyna, 1994, p. 65]. As Stewart explains in 1792, the need for limitations on political liberty in light of the 'reckless boldness of the uncompromising freethinker' and the dangers of civil unrest,

The danger with which I conceived the youth of this country to be threatened by that inundation of sceptical or rather atheistical publications which were then imported from the Continent, was im-

of Edinburgh's fashionable circles. There, they would have met up with luminaries of all political stripes, including Walter Scott, John Allen, Francis Jeffrey, Henry Brougham, John Playfair, Thomas Brown and James Pillans [Fyfe, 1942, pp. 318-319]. Included in the group were the liberal Whigs who would go on to form the Edinburgh Review, in its day touted as the most important critical and literary journal in Europe. It is impossible to say with certainty whether Mary Primrose and her siblings attended many of the Edinburgh's soires, although it seems likely that they did. For, Mary Primrose was acquainted with many of the same individuals in adulthood, and entertained them in her own home in London. It should be noted, however, that her father, Neil Primrose, was a frugal man, and this may well have limited the family's participation. By all accounts, the family had suffered serious financial loss due to the mismanagement of the family fortune by Neil's father, James Primrose, the second Earl of Rosebery. Having rebuilt the family fortune, Neil Primrose probably had a good sense of money, although he may have carried his frugality to extremes at times. The third Earl refused his wife the pleasure of an afternoon society of ladies, and is also said to have allowed Barnbougle, and possibly Holland House, to deteriorate under his care. The family circumstances may have placed modest limitations on the social life of the children; however, they were certainly well off by local standards, and Neil Primrose's eccentricities would have been more of an embarrassment than an impediment.

mensely increased by the enthusiasm which, at the dawn of the French Revolution, was naturally excited in young and generous minds. A supposed connection between an enlightened zeal for Political Liberty and the reckless boldness of the uncompromising free-thinker, operated powerfully with the vain and the ignorant in favour of the publications alluded to [Stewart, 1855, pp. 111-112].

Thus it was that the moderate old guard of Edinburgh, after what might be considered a rather conservative fashion, began to advocate a more restricted form of liberalism in the 1790's. The younger generation, however, was not easily intimidated, an insisted on defending their rights to free expression. To conservatives, this new generation of moderates was excessively radical. As the power the ageing generation of moderates began to wane, conservative elements in the local culture began an attempt to upset the passing of the torch from the older to a younger generation of moderate leaders.

The first of the challenges faced by the younger generation of moderates began even while they were still in their student days at Edinburgh. The controversy involved the Select Society, a society for law students. 11 The events around the Select Society controversy began to unfold in 1798. On one account, the controversy was reported to have involved 'attacks on Christianity' and to have been 'connected with revolutionary principles'. 'The Society, like everything else in the country, was affected by the white heat of political passion generated by the French Revolution' [Cockburn, 1905, p. 11]. Other accounts, such as that of Francis Jeffrey, place greater emphasis on local politics and issues around freedom of debate. According to this latter angle, the debate question that gave rise to controversy was 'Have the States of Europe any reason to dread the increasing ascendancy of Russia in the balance of power?'. Conservative members of the society objected to the topic, on the grounds that it contravened a 1794 resolution against debating subjects relating to political questions of the day [Cockburn, 1845, pp. 33–38]. Although the larger issues around civil unrest were surely seen as connected to those around free speech, one has the impression that, in this case, the larger issues were serving a local political end of undermining the moderates. In the short term, the young moderates won out, for they succeeded in rescinding the restrictive motion of 1794 on the grounds that it was an attempt to undermine the 'freedom of debate' [Cockburn, 1845, p. 36]. However, controversy over the new motion (the one rescinding the 1794 motion) was generated and religious questions were dragged into the matter. To this, the young moderates objected that,

Since it was enacted, not a single question has ever been appointed, or an essay delivered, the discussion of which led either directly or

¹⁰Through the influence of Stewart and others, there grew to be a large contingent of liberal lawyers and politicians in Edinburgh, many of whom would later form part of the Whig opposition in Parliament.

¹¹Given the Primrose family's ties to the local legal community, it is almost certain that Mary Primrose would have known about and followed this local controversy.

by the most remote allusion to arguments or topics of a theological description [Cockburn, 1845, p. 37].

However, the young moderates were temporarily defetaed. The new motion was repealed and 'a positive law substituted in its place against all religious and political discussions [Cockburn, 1845, p. 37]. Thus, the incoming generation of moderates were, in this instance, reduced to 'the necessity of deploring those misconceptions which we have done everything in our power to obviate and correct' [Cockburn, 1845, p. 37].

Thus it was that the incoming generation of moderates was temporarily silenced. Whatever tolerance may have existed for free speech and debate was now under attack, hampered by a conservative appeal to political instabilities in Europe. Worries about civil unrest bred a fear-mongering rhetoric — a rhetoric that promised social disaster as the natural culmination of free speech. The message was that free speech might well be appropriate for back-room, closed-door discussions, but that it was inappropriate in an open political forum. Edinburgh intellectual society was still abuzz, but the object of the rich and the powerful conservatives was now to contain that buzz, and to limit the appropriate matter for public debate and discussion.

In spite of, or perhaps because of, the controversies around her, the young Mary Primrose became very interested in religious, philosophical, and political matters. Indeed, it was in this context, with political anxieties renewed to full pitch in Edinburgh, and the influence of the ageing moderates on the wane, that Mary Primrose turned to the development of her own views on the leading debates of her day. Between the ages of 17 and 27, Mary Primrose's inquisitiveness led her to write numerous manuscripts 'full of metaphysical disquisitions, exposing errors in the reasoning of Hume's atheistical treatises, and the unitarian doctrine of the then new philosopher, Priestley' [Brandreth, 1888, pp. 28–29].¹²

Without access to Mary Primrose's early 'metaphysical disquisitions', it is impossible to guess at the specific criticisms that they contained. It seems clear, however, that Mary Primrose's youthful essays addressed the *philosophical* issues around religion.¹³

Hume's Essay on Miracles and Natural History of Religion were shocking in their day. In the former work, Hume claimed that it was more probable that the witness to a miracle was deceived than that the natural order was violated by a miraculous event. In the latter, Hume gave an historical analysis of the origins and development of religion and religious beliefs that made a mockery of religious belief. Hume pronounced religion irrational and recommended that religious beliefs unable to withstand scrutiny be eliminated. In addition, Hume's Dialogues concerning Natural Religion considered and rejected the popular design hypothesis. The most that an appeal to nature can possibly tell us, he thinks, is 'That the causes of order in the universe probably bear some remote analogy to human intelligence'. ¹⁴

^{12 [}Naturally, I would like to find these.]

¹³[see Stewart 1818 for his POV this topic]

 $^{^{14}\}mathrm{Such}$ a view has no special existential implications for God. For 'We ought not to hold a

Joseph Priestley's works would also have been shocking to theists, not only because Priestley shared many of Hume's views on religion, but also because he touched on some of the sacred doctrines of Christian dogma and ritual. In the 1780's, Priestley's published his *The History of the Corruptions of Christianity* and *History of Early Opinions Concerning Jesus Christ*. He argued that the doctrine of the Trinity was not in fact a tenet of the primitive church and that worship should proceed without elaborate ceremony or dogma.¹⁵

Although it is impossible to know the specific points taken up against Hume and Priestley in Mary Primrose's early 'metaphysical disquisitions', it seems likely, given the tenor of her mature work, that she set out to defend theistic doctrines against the criticisms of Hume and Priestley. The question that arises for us is that of where Mary Primrose drew the line between fealty to tradition, fear of social unrest, and the liberal ideals of moderatism. In certain respects, it is evident that she held Hume to be in error. It is clear, however, that she believed Hume's errors to be analytic ones. The evidence of her life suggests that she held high regard for the ideal of freedom of conscience. Finally, it also seems likely that she believed that an incorrect or 'wrong' ideology could sink the civil order.

Mary Primrose's youthful disquisitions, whatever they may have contained, are lost to us now. They were, however, only the start of her philosophical efforts. She was lucky enough to have been able to pursue her intellectual interests in married life. These efforts were shaped in an important sense by the philosophical and social controversies of her youth. In particular, she seems to have been motivated by an Edinburgh controversy relating to the election of John Leslie to the Mathematical Chair at the University of Edinburgh. [Church of Scotland, 1805]. The events in question took place in 1805-06. The themes of the Leslie controversy echoed the earlier Hume controversy of 1744-45, as well as those of the Select Society controversy.

With a freshly educated, more radical generation of intellectual aristocrats on the rise, yet another political and religious struggle would come to hold the attention of Edinburgh. The episode concerned the suitability of John Leslie as candidate for the Chair of Mathematics at the University of Edinburgh. The Leslie affair was directly and explicitly linked to both the Hume controversy and fears of civil unrest in Europe. Unlike the case of Hume, which was in many respects a back-room affair, the Leslie episode was played out in the public eye. As we shall see, the events and discussions arising in connection with the Leslie episode — particularly as concerned the philosophy of Hume — would profoundly influence the direction of Mary Primrose's philosophical writing. For this time, many of those who frequented Edinburgh's most fashionable and

strong belief in the existence of a certain cause if that cause only imperfectly resembles other causes of similar effects or if the effects of that cause only imperfectly resemble the effects we observe to follow from other causes of that kind.'

¹⁵Priestley's view was in fact liberal in its interpretation of salvation and emphasized tolerance for different ways of seeking God. However, it posed a challenge to traditional religion and to the requirement of conformity to the Anglican Church of England. In addition, Priestley's works criticized doctrines such as the virgin birth, and it became commonplace to regard Priestley as an atheist.

literary circles, including (eventually) Mary Primrose, would jump into the fray. [Sum here: Leslie controversy events and philosophical issues]

As the Leslie affair unfolded, it grew increasngly evident that if Hume was right about necessary connection, then the foundation for the scientific arguments of writers such as Bacon and Newton was also in question. There could be no philosophical justification for the claim that ideas of constant conjunction contained any necessity. Based on a mere habit of mind, they gave no reason to suppose an external world that was itself causally deterministic. To those who held firm that laws of nature must reflect causal necessity in the world, Hume's critique called for a clearer and more careful philosophical account of scientific reasoning than either Bacon or Newton had to offer.

Thus it was that the conservative backlash in late eighteenth century Edinburgh played an important role in shaping the social context in which Hume's philosophy was first understood. The wider social context was one in which religious orthodoxy formed a basis for accusations of atheism that extended the experimental science and philosophy promoted by figures such as Leslie. Conservatives saw Leslie's brand of scientific experimentalism as a dangerous and heterogeneous mixture of truth, falsehood, and speculative opinion. Leslie was likened to the Devil and it was proposed that laws be introduced to limit the freedom of the press. Following the Leslie affair of 1805-06, it became clear that the methodological foundations of experimentalism that had been relied upon at the turn of the nineteenth century would have to be revisited. It is this cluster of themes around the perceived atheistic implications of Hume and the doctrines of causality and induction that would become central to the life and work of Mary Primrose.

¹⁶[Summons to Wakening]

Chapter 4

London at a Marriageable Age

In 1808, Mary Primrose was married to a barrister by the name of Henry John Shepherd, after which she became known under her married name, Lady Mary Shepherd. Henry John Shepherd was the son of Sir Samuel Shepherd, a prominent member of the British legal profession, based in London. Indeed, the couple may well have met in London; for, the Primrose family had long-standing London connections. Mary's father, Neil Primrose, was Representative Peer for Scotland between 1768 and 1784. In 1796, the Earl of Rosebery appears in Boyle's Court Guide on Bruton Street, Berkeley Square, and, beginning in 1801, Neil Primrose is listed at Park Lane. At this point, the Primrose children had advanced to a marriageable age, and it is likely that the family spent a considerable portion of the year in London.

The circumstances of marriage and the social connections of the Primrose children were like those of many other aristocratic families of the eighteenth century. Like others of his station, Neil Primrose would have been conscious of the importance of an advantageous marriage. Sexual indiscretion or time spent gambling away the family fortune could easily lead to trouble, and possibly threaten the family line. And, though it was important to marry well, it was often difficult to find a suitable match. Social conventions, played an important role in determining how, when, and to whom a child would be married. Parents also tried to take a leading role in the decision. However, by the turn of the nineteenth century, strong-willed children were increasingly aspiring to 'love matches' and defying both social convention and their parents' ideals.

It turns out that the conventional expectations regarding marriages of the period are in fact reasonably helpful in understanding the marriage pattern in

¹Also, it was probably during this period, when Neil Primrose served as Representative Peer for Scotland between 1768 and 1784, and it may have been during this period that the family rented Holland House. The third Lord Holland was in his minority, and the rental would have been through Charles James Fox.

the Primrose family. According to the conventional pattern, elder sons or sons who could expect to inherit a large chunk of the family's wealth, generally had the pick of marriageable women. And, such was the case for Neil Primrose's eldest son, Archibald Primrose, who became the fourth Earl of Rosebery. Younger sons, however, especially sons who did not expected to inherit a substantial fortune, were encouraged to take on a profession. The Primrose family's younger son, Francis Ward Primrose, inherited a family estate in Norfolk, but developed a gambling problem, and ended up in the civil service in Newfoundland, Canada.

Though prospects of younger sons could be bleak, daughters of aristocrats faced especially difficult circumstances. The system of primogeniture meant that there were few heirs and few opportunities for aristocratic girls to retain their social status. At the turn of the nineteenth century, about one quarter of upperclass young women remained unmarried. In many cases, they were regarded as a burden on their families, and were obliged to take on roles such as governess or companion. Undoubtedly the preference for most daughters would have been to retain social standing through marriage, and with this in mind, daughters of aristocrats were encouraged to acquire the basic arithmetic and literacy skills required to manage an estate and to learn 'polite manners' [Christie, 2000, pp. 104–105]. Having too much education, however, was not seen as an advantage, though there were might be mitigating circumstances. Neil Primrose was able to provide a dowry of £20,000, and all three of his daughters were married off.² Hence, the Primrose children, well educated and well provided for, were ideally placed to make good matches. London was just the place to find such a match.

Charlotte Primrose, the eldest Primrose daughter, had excelled in mathematics. She had been frequently called upon by her father to assist with the estate management, a circumstance that would have helped to single her out for marriage into the peerage. Indeed, of the three Primrose girls, Charlotte's marriage would appear to have been the most socially advantageous. When she was married, her husband, Kenneth Howard, stood in line to become the Earl of Effingham. He did eventually succeed to the title, though for many years (from 1800–1837), Kenneth Howard and his family had neither title nor wealth. Charlotte's parents had not approved of the match. Kenneth Howard, so the story went, was 'a near relation of Lady Rosebery's and may become Earl of Effingham, but has at present only his pay as Col. in the Guards. Her Banns were muttered over in the Parish Church, and she walked out at the Hall door and met Col. Howard at the end of the street, whence they proceeded to the Altar of Hymen.' In the end, Charlotte Primrose did become Countess of Effingham. However, she and her children struggled financially until Kenneth Howard succeeded to the Earldom until 1837.

Little is known of the lives of Dorothea Arabella Primrose and Francis Ward Primrose. Not long after Charlotte was married, Arabella married a Mr.

 $^{^2}$ The figure assumes that all three daughters received the same dowry as Charlotte Primrose [Brandreth, 1888, p. 51].

³[see Complete Peerage under Rosebery.] To get a sense of the attitudes of the aristocracy of the day, note the following: Lady Jerningham is reported to have made this unkind remark on 27 May 1800 — Charlotte Primrose's wedding day.

William Hervey — said to have been painfully shy and awkward in company. Arabella died in 1825. The youngest son, Francis Ward, moved to Canada to escape gambling debts, where he was happily married. Of the remaining Primrose marriages, the most notorious was that of Archibald Primrose. His marriage appears to have been the product of the family's London connections. Married in 1808, Archibald Primrose was set to become the fourth Earl in short order (1814). He married the beautiful Harriet Bouverie, daughter of Bartholomew Bouverie. The marriage ultimately ended in sadness, lawsuit, and divorce. Harriet was seduced by her newly bereaved brother-in-law, Sir Henry Mildmay. According to Henry Brougham (defence council for Mildmay — Harriet Bouverie's seducer) a series of unfortunate and accidental circumstances had led to the 'melancholy story' of a mutual, sincere, ardent, devouring passion' between Sir Henry Mildmay and Harriet Bouverie [Ford, 1995, p. 226]. The story was that Archibald Primrose, hopelessly in love with his wife, sent her away to keep company with his mother at Barnbougle. Mildmay soon followed, secretly joining the Countess in her bedroom after dinner. Caught in the act, Archibald Primrose is said to have shot Mildmay in the arm [Ford, 1995, p. 225].⁴

Mary Shepherd was the last of Neil Primrose's daughters to marry. Her marriage permanently shifted the center of her world from Edinburgh to London. Lady Mary's marriage is something of a mystery. She was thirty years old when she married, and quite possibly pregnant. Unlike most young women of her class and generation (and family), she did not marry an older, well-established gentleman. Her husband, Henry John Shepherd, was a poetic and romantic individual six years her junior. In addition, Lady Mary was married by license, an unusual choice for a woman of her standing. The practice that avoided the reading of Banns, and she took her vows on 11 April 1808, bearing her eldest daughter, Mary Elizabeth, on her very own birthday, 31 December 1808. Her second and third children, Henry Primrose and Maria Charlotte, were born in 1814 and 1815, respectively. Although we do not know of the circumstances that led to the marriage, we do know that Mary Primrose from this point onward became known as Lady Mary Shepherd, a London society woman and mother to three children. Regardless of the circumstances of the marriage, happy, sad, or indifferent, Mary Shepherd was freer in marriage than most woman of her day could boast.

Henry John Shepherd, Lady Mary's husband, was educated at Eton and Cambridge. He took up law at Lincoln's Inn and became a barrister on the Oxford circuit. From 1818–1820, he was MP for Shaftesbury. In the 1820s, he returned to Cambridge to take a graduate degree. Henry John wrote a Master's thesis, and later, produced some dramatic works, in addition to his 1825

⁴The damages won in the case were considerable. However, according to the Primrose family, Archibald Primrose and his close relatives remained sympathetic to the beautiful Harriet, who was seen as a victim of the lecherous Sir Henry Mildmay. Considerable blame for the outcome was laid on Archibald's mother, the Countess dowager, who withheld Harriet's letter of explanation and apology [Brandreth, 1888, pp. 18-20]. Years later, upon learning of the interference, Archibald Primrose was crushed, and avowed that, 'I love her now as I did the day we were married' [Brandreth, 1888, p. 19].

summary of the law concerning elections of Members of Parliament in Britain [Shepherd, 1825a; Shepherd, 1834; Shepherd, 1840]. His eldest daughter described him in affectionate terms, as having a nature that 'united with deep tenderness of heart, and sympathy for his fellow creatures, a brilliant and attractive fancy and imagination' [Brandreth, 1888, pp. 25–26].

While Henry John Shepherd may have been more inclined towards poetry than philosophy — for 'he was full of apparent paradoxes, which from his friends always met with a kind of tender appreciation' [Brandreth, 1888, pp. 25–26] — Lady Mary had been tutored at home on the 'old fashioned Scotch plan' of Dominie Pillans. It was she who appears to have had the more rigorous and demanding education. The resulting combination in the marriage was slightly odd, but, apparently not unpleasant: 'The difference of circumstances in their bringing up, combined with the similarity in simplicity of character, between my father and mother, made the peculiar natural flavour and refinement of the tone of conversation in their home' [Brandreth, 1888, pp. 25–26]. Through the couple's connections in Edinburgh, London, Norfolk, Cambridge, and Oxford, they became social acquaintances of some of the finest thinkers of their generation — many of whom were eminent scholars and scientists. The stimulating social milieu provided Lady Mary Shepherd with ample opportunity to meet her needs for intellectual stimulation.

All things considered, the Shepherd family was very well placed socially. Sir Samuel was King's Advocate between 1813 and 1819 and Lord Chief Baron of the Court of the Exchequer of Scotland from 1819 to 1830. All told, the family circle attracted many eminent individuals, and the home of Lady Mary and Henry John Shepherd became a sort of intellectual and literary hub [Brandreth, 1888, pp. 41–42]. The circle of social, scientific and literary friends was extensive, but it is Lady Mary Shepherd's inner circle that supplies clues to her deeper philosophical affinities and beliefs.

The persons who, besides my father, most thoroughly entered into my mother's mind, and followed where she led into great and wide depths of abstract enquiry, were Mr. David Ricardo the political economist, Mr. Pearson, Dr. Whately, Archbishop of Dublin, Dr. Whewell, afterwards master of Trinity, and Mr. Cameron [Brandreth, 1888, p. 119].

Not only was Lady Mary Shepherd acquainted with a wide variety of literati, scientists and publishers, she also ran a salon. This salon brought together old and new friends in London's Westminster district — friends that included some of London's best and brightest in terms of intellect and ingenuity. Lady Mary Shepherd was remembered, through her brother and her nephew, as a hostess of unusually sharp wit and logical ability:⁵

I should like to hear more about the gifted Lady Mary Shepherd — and her 'Salon,' which my mother has often assured me was a very

⁵The nephew in question is Lord Dalmeny, the first son of her Lady Mary Shepherd's brother, Archibald Primrose, fourth Earl of Rosebery.

interesting and agreeable one. My father seems to have been often there, and Lady Mary's humour seems to have been as well known as her logical powers, and occasional causticity [Brandreth, 1888, p. 4].

The list of friends and guests entertained at the dinner and after-dinner soirées in the Shepherds' home is a partial one, and yet, it is of great assistance in the reconstruction of this aspect of Mary Shepherd's life. It suggests friendships acquired in youth and extending throughout life — friendships that stretched from the early days of Holland House and Barnbougle to an intellectual circle of scientists, publishers, and 'men of letters' with links to the four major universities in Britain; Edinburgh, Cambridge, Oxford, and London.

Presumably they knew Lord Holland and his circle from their early days. In Edinburgh, they would have known figures such as Thomas Brown, Henry Cockburn, Francis Jeffrey, Henry Brougham, and Macvey Napier. Lady Mary Shepherd was also acquainted with John Leslie — and presumably many of the public figures involved in the Leslie affair. Later, in her married life, Shepherd socialized with many scientists and mathematicians, including Charles Babbage, William Whewell, and Mary Somerville. Babbage, an 'intimate friend' of the family, shared virtually the same dinner society as the Shepherds', including Henry Hart Milman, Lady Catherine Stepney, Mary Somerville, and Sydney Smith ([Bonar, 1887, p. 154–157] and [Hyman, 1982, p. 178]).

Following her marriage, Mary Shepherd's social world was largely — though not exclusively — drawn from society in London's Westminster area. The Shepherds' London friends had wide-ranging interests and views. Many of those in Lady Mary's social circle shared a love of mathematics, science, and abstract analysis — subjects that played an important role in the emerging philosophy and science of the nineteenth century. They were subjects in which Lady Mary clearly had a keen philosophical interest.⁷

Many of the Shepherd's social ties stemmed from Henry John Shepherd's Eton and Cambridge days. Charles Babbage, Frederick Maule and Edward Ryan, for example, were probably acquainted from Cambridge.⁸ Another important Cambridge connection may have been the Cambridge Philosophical So-

⁶In a letter to Charles Babbage, Mary Shepherd mentions Leslie's views on the Humbolt-Biot dispute over the location of the magnetic poles [Shepherd, 1832b, f.432].

⁷As for Edinburgh's professors, Mary Shepherd, though she does not mention any personal connection, was evidently very familiar with the philosophical work of both Stewart and Brown. Babbage, on the other hand, actually mentions visiting Dugald Stewart in Scotland. Though it is never easy to estimate the depth of the personal regard between historical figures, it is worth noting that Babbage named one of his sons 'Dugald'! The suggestion, of course, is that Dugald Stewart might be the namesake of Babbage's son Dugald — a supposition that is certainly consistent with Charles Babbage's practice —; his first son Herschel, for example, was named after his friend, John Herschel.

⁸All were members of the Analytical Society of Trinity College. Henry John Shepherd and Edward Ryan were close friends, Babbage and Ryan married sisters, and Ryan helped to oversee Babbage's affairs when he died. Henry John Shepherd's Eton, Cambridge, and Lincoln's Inn connections developed into important social ties. William Maule, Edward Ryan, Thomas Talfourd, like Henry John Shepherd, became barristers on the Oxford circuit. Later, several of these friends achieved prominence through the British India Company.

ciety, which would have accounted for several of the Shepherds' dinner guests, including Reverend William Pearson. Pearson, along with the likes of Babbage, Herschel, and others, was a founding member of yet a third society, the Astronomical Society, an outgrowth of the Cambridge Philosophical Society.

While the above connections to the Shepherds' may be easy to explain, the precise source of other social connections remains fairly mysterious. Included among their social group were individuals such as James Mill, Henry Hallam, David Ricardo, William Maule, and John Cam Hobhouse. This list suggests that the Shepherds were connected to the philosophically inclined 'philosophical radicals' as well as the more politically inclined 'Westminster radicals'. In the latter group are included mainly politicians, such as John Cam Hobhouse. The former group, broadly construed to include James Mill and David Ricardo, was comprised of political economists and self-proclaimed 'philosophical radicals'—individuals committed to identifying and theorizing about the root causes of social problems—causes such as unrepresentative government, inflation, excessive taxation, and so on.⁹

The Shepherds were not uniquely aligned with the radicals. They also had other political connections. They had long-standing Whig connections through the Primrose side of the family and Tory connections through the Shepherd side of the family. Hence, Lady Mary and Henry John Shepherd were associated with a diverse collection of individuals of all political stripes. Accordingly, it would be hard to trace the Shepherds' path through the changing political scene of early nineteenth century Britain with any degree of certainty. Consider, for example, that among the many family friends were individuals notorious for having switched political sympathies in the earlier part of nineteenth century. Many of those who had expressed liberal, reformist, or radical sympathies in the early days of the French Revolution later adopting more conservative views. This is arguably true of Thomas Erskine, James Mackintosh, Sydney Smith, John Murray, Samuel Taylor Coleridge, William Wordsworth and others in their social set. Who can say with any degree of certainty whether the Shepherds' political views were steady or wavering during this same period?¹⁰ In any case, over the years, the Shepherds appear to have been equally comfortable with conservative reformers such as Lord Lyndhurst (Sir Samuel Shepherd's brotherin-law) and (ostensibly) radical reformers such as John Cam Hobhouse. 11

One reason for the apparent compatibility of the diverse acquaintances may be the importance that was attached to freedom of conscience and 'refinement of

⁹When the term 'philosophical radical' is defined by John Stuart Mill in the 1820s, he is still very much an proselytizer of his father's views. Also, the elder Mill fits the category just as well as the younger.

¹⁰Though initially sympathetic to the cause of the people, these individuals later openly denounced revolutionary and republican ideals. It seems probable that in staying the course of the reform movement, the Shepherds, like many, exercised diplomacy and emphasized moderation.

¹¹Virtually everyone in London society, including the Shepherds, seems to have known and loved Walter Scott — despite his ultra-conservative politics and overwrought sentimentalism. Scott's interest in things historical, literary, and antiquarian would doubtless have been more important to this collection of intellectuals than any personal or political differences.

tone'. These intangible social goods, as much as any intellectual contributions or political reforms, seem to have been uniting creeds of Shepherd's social set. Hence, the members of the coterie may have held different philosophical and political views, but they appear to have socialized without animosity.¹²

Another uniting interest of the Shepherd's group was very likely political and economic reform. A majority of the guests belonged to 'Benthamite' and 'radical' circles. James Mill, a close friend and follower of Jeremy Bentham, was, at least for a time, one of those who formed part of Mary Shepherd's circle of intimates. David Ricardo, however, is given special mention as a close confidante of Mary Shepherd.¹³

Yet another noticeable feature of the Shepherd's social set is that many were considered to be eccentrics. In addition to Babbage, there was Richard Whately, the eccentric clerical figure who became a minor celebrity after the publication of his outrageous *Historic Doubts*. Equally notorious and unique was Sydney Smith, well known for his acerbic wit and entertaining antics, and a favorite at Holland House. Another socially controversial acquaintance, at least for his drug addiction, was Samuel Taylor Coleridge. Coleridge's deep fascination for German philosophy and literature did much to re-awaken the British interest in German ideas, and especially Kant.¹⁴

It is well to remember then, that Mary Shepherd's social circle was quite diverse. She was an aristocrat by birth, but had close friends of much humbler origins. This is true of Mill, Ricardo, and Babbage, for example.¹⁵ Thus Shep-

And now, my dear Malthus, I have done. Like other disputants, after much discussion we each retain our own opinions. These discussions, however, never influence our friendship; I should not like you more than I do if you agreed in opinion with me [Bonar, 1887, p. 240].

In return, Malthus commented that 'I never loved anybody out of my own family so much'. (See [Bonar, 1887, n. 240].) Hence, for the most part, this Westminster set self-consciously modelled good conduct in public debate, which gives insight into the value placed upon human dignity and freedom of conscience.

¹³Bentham claimed to be the spiritual father of James Mill, and said of Mill claimed to be the spiritual father of David Ricardo [Bonar, 1887, p. xi; Letter XXI, n. 55].

¹⁴'One day', Mary Shepherd's daughter writes, 'I went with my mother to see Mr. Coleridge (Samuel Taylor Coleridge) at Highgate'. His conversation, she recalls was 'almost a monologue of poetic philosophy on the things between God and man; but my mother, with great tact, occasionally asked a question which brought forth fresh and fresh streams' [Brandreth, 1888, p. 113]

p. 113].

15 Charles Babbage was of good family, but was considered poor and eccentric by many. Babbage had 450 pounds a year, which would have been sufficient to get by. However, for a long while, he entertained every Saturday evening — according to reports, sometimes up to hundreds of people on a given evening. Most importantly, he was singularly devoted to his Difference Engine and his Analytic Engine, and had two highly skilled mechanics working full time in his shop. At one point, he had to increase his salary offer to his principal mechanic many times over in order to keep him. When he asked his mother for financial advice, she replied to him that he was so far into it now, that he shouldn't stop pursuing his dreams. She recommended that he simply find a way to do with whatever he had left over! Not the usual

¹²We see a fine example of this in the words penned by Ricardo to Malthus shortly before the former's sudden death in 1823. In his final letter to Malthus, Ricardo wrote on a subject of perennial dispute between them, but closes with this final gesture of good will: [Bonar, 1887, p. xviii]. Cf. [Malthus, 1824].

herd was comfortable in the best of social circles, but by no means narrow in her social views or in her society. Because of her Whig family tradition, and her connections to radicals and 'turncoats', it is not an easy matter to decide her politics. What we can surmise, however, is that she was frequently engaged in abstract discussion, that she enjoyed a keen wit, and that she sought to secure a social and intellectual milieu that would provide stimulating conversation.

parental advice.

Chapter 5

Causality and the Revolutionary Lens

Publications such as Brown's 1818 Inquiry and Whately's 1819 Historic Doubts show that the discussion and debate surrounding causality and induction was far from extinguished. As before, the debate had both epistemological and social overtones. IN 1824, Lady Mary Shepherd's anonymously published An Essay on the Relation of Cause and Effect was part of this resurgence in interest in questions surrounding causality and induction.

One of the more significant contributions to the ongoing discussion of causality — at least in terms of the attention it received — was Thomas Brown's 1818 Inquiry into the Relation of Cause and Effect. The book elaborates and develops the doctrine of causality that Brown first published in his 1805 Observations [Brown, 1818]. Much of the doctrine of causality in Brown's later work appears fundamentally unchanged from its 1805 formulation. If there is a difference in Brown's 1805 and 1818 doctrines of causality, it is probably just this: in 1818, Brown's definition of 'cause' is more refined than in 1805. In 1805, what Brown says is that a 'cause' is defined as 'an object followed by another, where, if the first object had not been, the second had not appeared, and which, existing again in similar circumstances, will always be followed by the second' Brown, 1805, n. 2. In 1818, Brown's definition is clearer. He continues to place emphasis on antecedence and consequence; so that 'cause' comes to be defined as 'that which immediately precedes any change, and which existing at any time in similar circumstances has always, and will be always, immediately followed by a similar change' [Brown, 1818, ???]. Niceties aside, it fair to ascribe to Brown the intention of elaborating on the original doctrine of causality in the

Brown's 1805 analysis of causality was based on the claim that belief in antecedence and consequence can arise only in connection with experience. Specifically, Brown argued that there was no sense in which belief in causality could arise as a result of reasoning or as a derivation from an a priori axiom. Many

of Brown's 1818 interpreters read him as essentially repeating his 1805 doctrine of causality. As with his earlier work, the reception of Brown's 1818 Inquiry, was mixed. Several important figures gave negative reviews. Victor Cousin remarked in his Remains de M. de Biran that Brown's theory is 'a fantastical one, and destructive of all true metaphysics'. John Herschel's comment in his Cabinet Cyclopedia article on Astronomy is even more explicit. Herschel writes, 'the whole train of argument is vitiated by one enormous oversight; the omission, namely, of a distinct and immediate personal consciousness of causation, in his enumeration of that sequence of events, by which the volition of the mind is made to terminate in the motion of material objects' [Blakey, 1850, n. 31]. These writers, like Richard Blakey (who was a great admirer of Mary Shepherd's work) echo the sort of critical appraisal that Lady Mary Shepherd had given. Blakey, in particular, identified the source of the problem in Brown's 'peculiar ideas' on cause and effect and their atheistic consequences. Specifically, the problem with Brown's theory is that,

The cause of a thing is only the immediate invariable antecedent in any sequence, while the immediate invariable consequent is the correlative effect. It is somewhat surprising that a doctrine of this kind should have met with so much encouragement in the northern part of the kingdom; fraught, as it evidently is, with the most absurd and dangerous consequences [Blakey, 1850, p. 30].

Even if Brown's notion of causality remained essentially unchanged from 1805, it would be a mistake to say that Brown's ideas on causality were the whole of his 1818 contribution. At the same time, it is true that the latter doctrine that becomes the linchpin for Brown's new philosophy of mind — a philosophy developed from University of Edinburgh lecture notes. There, Brown continued to develop his response to Scottish philosophy. In particular, Brown objected to Reid's philosophy.

Contra Reid, Brown argued that Reid had unnecessarily multiplied entities and mental operations. Reid, for example, had introduced ideas of primary qualities to assist in the explanation of knowledge of the external world. Brown, however, raises a general objection to his theory and the accompanying account of perception. In explaining knowledge of the external world, Brown maintained, Reid's theory of ideas misconstrues perception of external things in terms of the reference between sensations and external causes. But any perception that is extra-sensory, such as the perception of primary qualities, must somehow be tied to sensory perceptions of secondary qualities. Thus, primary qualities must really be perceived as a form of sensation — a form of sensation that differs in kind from sensations of secondary qualities. In other words, primary qualities must really be a kind of sensation. As such, belief in an external world, Brown argues, is not based on the 'perception' of ideas of primary qualities, as claimed by defenders of the theory of ideas, but rather, on sensation itself. In view of this, Brown argues, belief in an external world must be on the order of an immediate and irresistible belief arising from sensation.

Brown's develops his ideas on sensation, first introduced in 1805, with reference to his work on physiology and philosophy of mind. Beliefs in external causes, he proposes, arise in connection with feelings of resistance associated with muscular contractions. When feelings of resistance intrude on familiar muscular sensations, they make us aware of external objects. On Brown's reckoning, it is these feelings of resistance, rather than ideas of primary qualities, that lead to belief in independent, external causes. For, it is by association with feelings of resistance that there arise in us certain feelings of extension, and in consequence, the irresistible belief that some of our sensations have an external reference. Contra Reid and the theory of ideas then, the foundation for our belief in external existence is in sensible effects that directly compel us to form certain beliefs [Grave, 1960, p. 182–183].

We are now in a position to see how Brown's 1818 Inquiry builds on his earlier work on causality. The 1818 book is divided into four parts, each of which places emphasis on the physiological and phenomenal basis for belief in causality [Porter, 1961]. The first part of the book begins by considering a standard definition of causality, based on observations of invariable antecedence and consequence (as stated above). Brown shows how observations of antecedence and consequence can always be linked to physical and mental events. In the second part, he argues that many philosophical beliefs about the causal relation are based on delusion. The language that we use to describe cause and effect, he argues, following Hume, Reid, Stewart and others, is metaphorical, and as such, easily leads to error. Hence, we talk of causal 'powers', although this is just another name for an effect that is perceived as an antecedent circumstance. Next Brown explains what he takes to be the real circumstances in which belief in the causal relation arises. In this part of his analysis, he virtually repeats the appeal to intuitive and immediate belief first proposed in 1805. And, it is primarily this view, rather than his philosophy of mind, that the critics continue to light upon after the 1818 publication. In the final section of the book, Brown argues that the customary connection described by Hume is supposed to enable us to separate causal events from irrelevant circumstances. However, contra Hume, Brown argues, it is not the habitual transition from one idea to the next that produces the belief in causal connection, but immediate sensation itself. Hence, causal beliefs are based on more than mere habit of mind — they have an intuitively certain foundation. In sum, Brown's 1818 work supplements the 1805 analysis, offering an explanation of the mental operations that give rise to belief in cause and effect. The explanation is ultimately grounded in the different feelings that arise in conscious experience. Since some of the feelings that arise in us lead irresistibly and intuitively to the belief that there is an external world of causes producing effects in us, we are compelled to form beliefs about external causes [Porter, 1961, pp. 192–193]. Thus, the 1818 treatise represents an embellishment of the 1805 theory, and also develops Brown's more recent work in the philosophy of mind.

Brown's 1818 *Inquiry* may not have received universal acclaimed in its day, but it did garner respect in some circles. Furthermore, it bears on our understanding of Lady Mary Shepherd's response to Hume. For, Shepherd was one

of those critics who saw Brown as promoting a 'dangerous' philosophy that led to atheism:

When she undertook a public refutation of these erroneous notions of cause and effect, it must be remembered it was at a time when they were most rampant, and widely spread over the northern parts of Britain in particular. Every young man who came from the Universities of Scotland, attempted to show off his subtlety and academic lore, by denying there was any real causation in the world; all was mere imagination, and a piece of gross vulgar credulity [Blakey, 1850, p. 43].

Brown's 1818 return to his doctrine of causality and the motivations underlying Lady Mary Shepherd's 1824 publication described in the preface to her 1824 work, suggest that Lady Mary's interest in foundational questions regarding causality had persisted since 1805.

Successful or not, Brown's 1818 publication was a reminder that the fall-out from Hume's challenge to the doctrine of causality was far from over. On the one hand, there were the outstanding conceptual issues concerning causal knowledge. On the other hand, there were related social and religious questions concerning the causes of civil unrest and the proper bounds of civil liberty. Mme de Staël's posthumously published work of 1818, entitled Considerations sur les principaux événements de la Révolution française, had the working title in 1816 of Des Causes et des Effets de la Révolution Française, the sort of title, which suggests just such a connection of ideas [Smiles, 1891, p. 316]. Indeed, the themes of abstract analysis of causality and social unrest were often combined, sometimes in all seriousness, and sometimes not. Mme de Staël's working title is likely tongue-in-cheek, and so too is Richard Whately's 1819 contribution entitled Historic Doubts Relative to Napoleon Buonaparte.

Richard Whately's *Historic Doubts* was a humorous contribution that identifies the fallacies underlying debates on Hume and causality. Highly entertaining and topical, the book was enormously popular. It posed a philosophical challenge to Hume's supporters, drawing on the 'universal scepticism' engendered by Hume to undermine the sceptic's belief in the existence of Napoleon Buonaparte [Whately, 1837, p. iii].² To begin, Whately points out that most of the evidence

But some sensible readers have complained of the difficulty of determining what they are to believe. Of the existence of Buonaparte, indeed, they remained fully convinced; nor, if it were left doubtful, would any important results ensue; but if they can give no satisfactory reason for their conviction, how can they know, it is asked, that they may not be mistaken as to other points of greater consequence, on which they are no less fully convinced, but on which all men are not agreed? [1837, p. iii]

¹The 1816 title is mentioned in a letter from Baron de Staël to John Murray discussing the possible publication of the work. The two were unable to reach a financial agreement, and Murray did not publish the work. It was published as [de Staël, 1818]. The English edition was published in 1818 by Baldwin, Cradock and Joy.

²Whately writes,

concerning Napoleon comes from newspaper reports. These reports, he says, are treated as pieces of evidence about Napoleon and his existence. Traded around from one newspaper to the next, they eventually take on the form of appeals to the masses. This poses an evidential problem that is further complicated by the fact that we are not normally in a position to verify newspaper reports about Napoleon. Hence, we can't appeal to personal testimony in support of the newspaper claims. Moreover, those who claim to have visited Napoleon, Whately notes, could well be deceived about the testimony of their own senses. After all, how do they know that the person that they have seen is Napoleon? Yet another important consideration that raises doubt about Napoleon, Whately notes, is the fact that various media reports palpably contradict one another on important points. Finally, it is well to keep in mind, says Whately, that the defenders of liberty and publishers could easily have conspired to fabricate the stories about Napoleon in support of their cause.

Having cast doubt on the belief in Napoleon, Whately, following the example of the Humeans, formulates a philosophical challenge:

Let those who pretend to philosophical freedom of inquiry, who scorn to rest their opinions on popular belief, and to shelter themselves under the example of the unthinking multitude, consider carefully each one for himself, what is the evidence proposed to himself in particular, for the existence of such a person as Napoleon Buonaparte [Whately, 1837, p. 29].

³ After much amusement, Whately gets to his main point. He says, 'I do not pretend to decide positively that there is not, nor ever was, any such person; but merely to propose it as a *doubtful* point...' [Whately, 1837, p. 47]. In fact, Whatley's goal is to shift the burden of the doubt onto the sceptic — to challenge the sceptic to justify his own beliefs based on causal inference"

I call upon those therefore who profess themselves advocates of free inquiry — who disdain to be carried along with the stream of popular opinion, — and who will listen to no testimony that runs counter to experience, — to follow up their own principles fairly and consistently. Let the same mode of argument be adopted in all cases alike; and then it can no longer be attributed to hostile prejudice, but to enlarged and philosophical views [Whately, 1837, p. 51].

³Whately goes on to congratulate those who would persist in believing without good argument on their 'easy faith', and to question how those who affirm the existence of Napoleon — when the evidence is blatantly contradictory — can nonetheless profess disbelief in miracles. In his *pièce de résistance*, he includes a mock Biblical extract starring Napoleon as God.

And when Napoleon saw that the kingdom was departed from him, he said unto the rulers which came against him, Let me, I pray you, give the kingdom unto my son: but they would not hearken unto him. Then he spake yet again, saying, Let me, I pray you, go and live in the island of Elba, which is over against Italy, nigh unto the coast of France; and ye shall give me an allowance for me and my household, and the lands of Elba also for my possession. So they made him ruler of Elba [Whately, 1837, p. 41–42].

Hume, of course, had admitted that he had no philosophical justification for his own credulity. Nevertheless, in his closing argument, Whately charges that those Humean sceptics who continue to believe in such mundane things as the existence of Napoleon should either admit inconsistency or give up scepticism.

If after all that has been said, they cannot bring themselves to doubt of the existence of Napoleon Buonaparte, they must at least acknowledge that they do not apply to that question, the same plan of reasoning which they have made use of in others; and they are consequently bound in reason and in honesty to renounce it altogether [Whately, 1837, p. 53].

4

As we shall see, the divergent approaches of Brown and Whately serve as helpful foils to the placement of the contribution of Lady Mary Shepherd. For, not only does Mary Shepherd reject Brown's appeal to intuition — which she thinks of as leaving the door wide open to sceptical doubt —, but she also seeks more by way of answer to Hume than the farcical appeal in Whately has to offer. For many, including Mary Shepherd, the whole system of knowledge — including social and political knowledge — must be undergirded by a sure foundational in knowledge of cause and effect. Hence, the political and social theories that might help to address social problems would ultimately rest on knowledge of the causal relation.

It was not mere chance that led to the renewed interest in Hume and causality one quarter century after the Leslie controversy and three quarters of a century after the Hume affair. Many of those who took an interest believed the scepticism concerning abstract notions such as 'causality' served to undermine the civil order. As the first quarter of the nineteenth century unfolded, England's social problems began to mount. Hence, for Shepherd and others, the foundational issues around causality and the threats presented by atheism and scepticism loomed larger than ever. Moreover, Lady Mary Shepherd's own family's involvement in social and political controversies meant that the issues now ran very close to the bone. Indeed, in the years directly preceding her 1824 publication on the subject of causation, Lady Mary Shepherd's life was once again filled with the same sort of controversy, persecution, and party politics that had fuelled the Leslie affair in 1805.

In 1819, circumstances conspired to place Lady Mary Shepherd's near relations at the center of what must have been a very unpleasant business, the prosecution of Richard Carlile for the publication of Paine's *Age of Reason*. Lady Mary's father-in-law, Sir Samuel Shepherd, was King's Advocate, or Attorney General, under the Regent, Prince George. The mood in England was quite revolutionary, much more so, in fact, than in the early days of the French Revolution. The Industrial Revolution had led to widespread job loss in Britain, and

⁴Whately added a postscript to his third edition, published shortly after the announcement of Napoleon's death. There, Whately adds an argument to the effect that the probable case of suspicion that he has established regarding the life of Napoleon gives grounds for the supposition that Whately himself killed Napoleon!

the combination of land enclosure, expensive wars, poor agricultural yields, and taxes meant that the people of Britain were literally starving. To make matters worse, sinecures and offices connected with colonization were reserved for the rich, who began to achieve unprecedented levels of wealth. The so-called 'Luddites' took up the cause against industrialization, organizing an underground militia, and leading mobs in looting and burning the homes and factories of the wealthy. Although the general level of discontent grew frightening, the majority of aristocrats persisted in voting down proposals for much needed reforms. Unwilling to yield concessions to the people, the terrified aristocracy sought comfort in escape, debauchery, and commiseration. It is about this time that we find Lord Grey writing to Lord Holland that 'We shall see, if we live, a Jacobin Revolution more bloody than that of France' [Lean, 1970, p. 118]. After decades of failed attempts at reform, the French Revolution had suggested a solution to the English. By 1819, revolutionary aspirations appeared daily more threatening:⁵ As the aristocracy grew hysterical with fear of widespread social unrest, many of those who had earlier avowed support for the French grew silent or adopted the conservative rhetoric. The monarchy turned its back on liberalism in all its forms, and adopted a conservative stance. In an effort to prevent incendiary material from reaching the public, strict publication laws were introduced and enforced. Many journals responded by becoming increasingly conservative or equivocal, out of fear of being charged with treasonable offenses. As the matter of publication bans became controversial, Richard Carlile defiantly published Paine's Age of Reason. Prince George insisted on a public shaming for this insubordination, including, eventually, imprisonment for both Carlile and his wife. The man who would do the honors in this prosecution was Lady Mary Shepherd's father-in-law, Sir Samuel Shepherd himself.

Whether Sir Samuel Shepherd enjoyed the task of prosecuting on behalf of the King is doubtful. Among the Shepherd family's personal friends were included publishers, a full spectrum of Whigs, a select group of Tories, and the Westminister radicals. Given their social ties, navigating between social and official lives would have been enough of a challenge; but as crown prosecutor, Sir Samuel Shepherd was also in peril for his own life.⁶

5

This was a year of great commercial distress, of riots, demonstrations, and uprisings ever increasing; with unflinching resistance on the part of the Government. In January, Henry Hunt presides over a great Reform meeting in Manchester. In July, Birmingham elects Sir Charles Wolsley as its representative. He is very soon arrested, and becomes long a popular hero. In August, took place the Manchester demonstration that led to the Peterloo affair, for which Hunt and many others were apprehended. In December, Parliament passed the famous Six Acts of Castlereagh, against sedition and libels [Bain, 1882, p. 188].

⁶Once, after having obtained some convictions for treason, Sir Samuel was waylaid by an angry mob at the door of Westminster Hall. When urged to follow a discreet route home, Sir Samuel objected with bravado. In the end, he was forced to flee in security [Brandreth, 1888, pp. 153–154]. His home residence was also targeted. Forewarned of the attack, Sir Samuel's wife had prepared a 'great quantity of good cold tea, well sweetened with brown sugar' and collected 'as much provision of plain substantial food as possible' including 'meat,

Sir Samuel was severely criticized for his role in the trial. The counts filed against Carlile were manufactured by the 'Society for the Suppression of Vice', and, as Carlile complained, 'the prosecuting parties' designed to 'give the information an air of importance' by 'acting in concert' [Unknown, 1819, n. iv]. The counts themselves related specifically to the text of Paine's *Age of Reason*, which, as publisher, Carlile was being held responsible for. The counts were repetitive, and all related to the Old Testament.⁷ Sir Samuel Shepherd's name arose very often in connection with the trial, and the following remark, made by J. Mills during the Crown and Anchor's forum, 'Ought R.C. to be Censured?', implies that Sir Samuel's role in the trial was hypocritical:⁸

Some will naturally be more sceptical than others, according to their means of forming a sound judgment; but of all men living, I should think an English Attorney-General the least likely to have very orthodox notions upon the subject of religion, if these notions are to be attained by translations of the Bible or attendance at church [Mills, 1819, p. 13].

But by 1819, the British aristocracy lived in a very real fear of Luddites and of revolution. Sympathy for 'the people's cause' was now tempered by a spreading fear of social unrest. Hence, in 1819, the bravado of 1792 would

bread, butter, cheese, milk' into the house. Having eaten the food, 'the mob trooped out at the front, several expressing their opinion that "Shepherd is a very good fellow after all" [Brandreth, 1888, pp. 129–131].

⁷It is remarked in passing that according to Paine, the New Testament will be found to be 'equally false and paltry, and absurd as the Old' [Unknown, 1819, p. 14]. For Paine had claimed that the Old Testament was full of 'obscene stories', 'voluptuous debaucheries', 'cruel and torturous executions' and 'unrelenting vindictiveness'. The book, according to Paine, 'is a history of wickedness that has served to corrupt and brutalize mankind' [Unknown, 1819, p. 4]. It contains 'lies, wickedness and blasphemy' and so 'many absurdities and contradictions' that it is 'impossible to find in any story upon record, so many and such glaring absurdities, contradictions, and falsehoods' [Unknown, 1819, pp. 5–6]. Paine ridicules the story of the Virgin Mary, saying that this 'debauchery by a ghost' under 'impious pretence' is 'blasphemously obscene' [Unknown, 1819, p. 7]. He also questions why all of humanity has not perceived the truth of Christianity, charges that Priests seek to stifle inquiry, says that the Bible is a romance devoid of historical truth, and so on [Unknown, 1819, pp. 8–14].

⁸The name also appears as J. Mill. One has to wonder whether the speaker was James or John Stuart Mill. According to [Bain, 1882, p. 435], John Stuart Mill first appeared in print on the subject of Carlile: 'John Mill's first appearance in print was to denounce the prosecution of him [Carlile] and his wife. I have reason to believe that he received substantial aid in his long imprisonments from the Bentham circle.' On pages 61-62 of his Autobiography, John Stuart Mill says that his first letters that appeared in print concerned the Carlile affair, published under a pseudonym at the end of 1822. 'The prosecutions of Richard Carlile and his wife and sister for publications hostile to Christianity, were then exciting much attention, and nowhere more than among the people I frequented. Freedom of discussion even in politics, much more in religion, was at that time far from being, even in theory, the conceded point which it at least seems to be now; and the holders of obnoxious opinions had to be always ready to argue and re-argue for the liberty of expressing them' [Coss, 1944, pp. 61–62]. If the speaker is actually James Mill, this personal attack may have contributed to an increasing tension between James Mill and the 'intellectual' Whigs in charge at the Edinburgh Review. Whoever it was that spoke the 1819 words, whether one of the two Mills or not, he seems to have been in a position to know that Sir Samuel Shepherd had tolerant rather than intolerant views on religion.

have been unpalatable to the members of Parliament — not to mention and the Prince Regent. In 1819, the official line is quite the opposite of 1792; the aim is to inspire fear of social activism and its consequences and to indicate that a treasonous and irreligious tenor will not be tolerated. ⁹ As one commentator bitterly remarked, Carlile goes to court 'with the whole weight of Government against him' [Jones, 1819, pp. 8–10]. Shepherd's own thought were, 'I am not going to be afraid of an angry mob when I have done my duty' [Brandreth, 1888, p. 153]. Yet, in the midst of the year's events, in June 1819, he gave up his position as Attorney General. He also declined offers of Chief Justice, Home Secretary, and refused to act as the Prince Regent's attorney in the divorce of Queen Caroline. ¹⁰ It was probably with considerable relief that Sir Samuel left London for Edinburgh, and took up the role of Lord Chief Baron of the Court of Exchequer for Scotland [Scott, 1890, vol. I, p. 51]. Presumably, Sir Samuel spent most of his time in Edinburgh between 1819 and 1830. ¹¹

Taken together, the circumstances of the day help to explain Lady Mary Shepherd's renewed interest in foundational issues around causality and induction. In particular, assumptions linking the philosophical idea of causality and social order continued to give rise to new philosophical investigations. The complexity of social ties and of the times makes it very difficult to say just where Lady Mary Shepherd stood in connection with issues raised by the trial of Richard Carlile. It is simply not an easy matter to decide from a distance who supported whom. We do know that Mary Shepherd's social circle included Whigs and Tories of every stripe as well as philosophical and Westminster radicals. But this only tells us that her society was decidedly mixed. At the same time, Blakey describes Shepherd in a way that leaves the question of her religious convictions unambiguous. As Blakey notes in his A History of the Philosophy of Mind, the view of causation espoused by Hume and Brown 'appeared to Lady Mary Shepherd to lead by an inevitable consequence to downright Atheism'

⁹One of Sir Samuel Shepherd's closest friends, Thomas Erskine, a fellow advocate and courtier, had successfully defended Paine from charges in connection with his *Rights of Man* in the 1790s. Erskine was one of the many liberals sympathetic to the French Revolution in its early days. It is curious that Sir Samuel Shepherd was asked to prosecute Carlile in 1819. One cannot help but wonder whether there were reasons for the manufacture of this irony. In any event, in 1792, Thomas Erskine provided a sympathetic portrayal of the helplessness of the average citizen in the face of an absolute authoritarian. Halevy reports Erskine's speech in defense of Paine from Conway's *Life of Paine*. It is the story of Jupiter and the countryman: 'The countryman listened with attention and acquiescence, while Jupiter strove only to convince him; but happening to hint with his thunder. 'Ah, ha!' says the countryman, 'now, Jupiter, I know that you are wrong; you are always wrong when you appeal to your thunder.' 'This', concluded Erskine, 'is the case with me. I can reason with the people of England, but I cannot fight against the thunder of authority" [Halévy, 1934, p. 200].

¹⁰The Prince Regent gently mocked Sir Samuel's sensitivities, saying, 'Shepherd, Shepherd, you are the honestest man in England, and the worst courtier in the world'(Note that this last remark was made when Sir Samuel refused, on principle, to oversee the King's divorce. But presumably the remark was general in scope.) [Brandreth, 1888, p. 142].

¹¹Sir Samuel Shepherd resided at 16 Coates Crescent. In his journal, Walter Scott remarks on 18 June 1830, that 'the good and very clever Lord Chief Baron is returned to his own country, with more regrets in Scotland than usually attend a stranger' [Scott, 1890, vol. II; p. 336].

[Blakey, 1850, vol. IV, p. 42]. And, insofar as the social well-being was threatened, there could be no contest — the scepticism concerning out knowledge of causality would have to be answered. Not, however, by stamping out free discussion; rather, by throwing the light of reason into the debate.

Part Two: Philosophy

Part Two interprets Mary (Primrose) Shepherd's philosophy, drawing on and expanding the social and historical context set out in Part One.

Chapter 6

The Causal Relation Reconsidered

Hume had claimed that the notion of a 'cause', as it was typically understood, contained several distinct ideas. First, it contained the idea that causes and effects were contiguous in space. Second, it contained the idea that causes precede effects in time. Third, it contained the idea that cause and effects are 'necessarily connected'. Hume revisited the notion of causality from an empiricist perspective, and this led him to some very different conclusions.

Hume noticed, for example, that we are unable to form causal beliefs after seeing just one instance of a cause followed by an effect. Nor do we form causal beliefs by analysis alone. What actually happens when we form causal beliefs, Hume argued, is the following. First, we notice that certain events always seem to follow upon others. This leads us to form a habit of thinking about these events as if they were causally connected. That is, we form the belief that certain 'effects' are produced by certain 'causes'. Causal inference then, is founded on nothing more than the subjective expectation that a certain effect will follow upon a certain cause — an expectation due to a mere association of ideas. If this is in fact how the mind comes to form causal beliefs, Hume realized, then causal inference turns out to be based on nothing more than the experience of customary conjunction. Hence, there was no basis for the assumption that the 'necessity' in cause/effect relations must be accounted for by appeal to a 'necessity' due either to reason or an external reality.

Hume also noticed that there was a close interdependence between matters of fact and causal reasoning. Knowledge of matters of fact seem to depend on causal inference, and causal inference seems to depend on matters of fact. From a foundational perspective, there was an obvious circularity in empiricist epistemology. What this circularity pointed to was the need to show that empirical knowledge — including scientific knowledge based on experiment and inductive argument — had a certain and independent foundation. But what sort of proof could be given to establish an independent, certain foundation for knowledge

based on inductive inference? Hume could find no adequate foundation for empirical knowledge. The problem, Hume discovered, was that induction was itself a form of inference for which no adequate justification could be found: Induction could not be justified by appeal to deductive inference; for the latter dealt only with implications drawn from premises about the past and present. Nor could inductive inference be the basis for justification of induction itself; indeed, such an appeal would involve a viciously circularity. Hence, not only had Hume cast doubt on the foundation of the causal relation, he had also cast doubt on the justification for induction — and indeed, on empirical knowledge as a whole.

Many philosophers and theologians had objected to Hume's conclusions, but it was proving very difficult to find a compelling answer his argument.

[Reid, Stewart, Brown]

What Hume's British critics shared in common was a refusal to consider an appeal to 'a priori' knowledge of the causal relation. In the late eighteenth century, this Kantian-style reply to Hume had been promoted in Edinburgh to no avail by a student of Kant's named Willich. As David Brewster complained, the appeal to the 'a priori' had been entirely overlooked in the Leslie controversy. Brewster writes that 'the moderate clergy in our church, have dismissed, simpliciter, the *a priori* argument, in as far as they have proved that Mr Leslie, by attacking the doctrine of necessary connexion, has denied all argument whatever for the being of God' [Brewster, 1806, pp. 10–11]. Brewster, it turns out, was quite nearly right. There was one Edinburgh philosopher who was quietly at work on a response to Hume that appealed to the 'a priori'. However, this attempt to bring up 'the *a priori* argument' in response to Hume, was published only in 1824. It was put forward by Scotland's first female philosopher, Lady mary Shepherd.

Lady Mary Shepherd's anonymously published 1824 An Essay on the Relation of Cause and Effect represents a sincere effort to engage both Hume's philosophy and the a priori argument. It responds to many of the points raised in the Leslie controversy, and, in particular, to the position developed by Thomas Brown in his otherwise neglected 1805 Observations. Like others of her day, Shepherd regarded Brown's analysis to be crude and mistaken. However, she did consider his work to merit response. Her 1824 Essay is in fact advertised to the reader as a reply to Brown's Observations:

It is not many years since Mr Hume's notions were the occasion of much dispute, on the very ground on which I have undertaken it; a dispute which nearly lost the mathematical chair in one of our universities to the present possessor of it, on account of his favouring this doctrine. His opinion, however, as far as it related to any countenance it might afford to the principles of atheism, was defended by a learned treatise, from the then Professor of Moral Philosophy, in the same University. This treatise, whilst it controverts Mr Hume's opinions in some respects, denies that atheistical inferences may be deduced from them; but I shall endeavour to show, that, in this respect, the author wanted observation and acuteness; neither per-

ceiving the corollaries that go along with the doctrine, nor detecting the sly and powerful sophistry of the reasoning by which they are supported [Shepherd, 1824, pp. 5–6].

Shepherd's 1824 An Essay on the Relation of Cause and Effect can profitably be set against Brown's work on cause and effect. Shepherd repeats Brown's format of 1805-06, and, looking directly to Brown's text, proposes five propositions to the end refuting both Brown and Hume. Shepherd's five propositions are:

FIRST, That reason, not fancy and 'custom?, leads us to the knowledge That everything which begins to exist must have a Cause. ? SECONDLY, That reason forces the mind to perceive that similar causes must necessarily produce similar effects. ? THIRDLY, I shall thence establish a more philosophical definition of the relation of Cause and Effect. ? FOURTHLY, show, in what respects Mr. Hume?s definition is faulty. ? FIFTHLY, proceed to prove that Nature cannot be supposed to alter her Course without a contradiction in terms; and, finally, show that Custom and Habit alone are not our guides; but chiefly reason, for the regulation of our expectations in ordinary life [Shepherd, 1824, pp. 27–28].

Not only does Shepherd's Essay parallel the form of Brown's Observations; it also takes up the challenge posed in Brown's closing remarks. After reiterated his thesis that Hume identifies instinct as the one and only possible foundation for the causal relation, Brown, having denied a foundation in reason for the causal relation, goes on to claim that the 'only dangerous scepticism would be, to deny the reality of the instinct' [Brown, 1805, p. 40]. He closes with the disingenuous lament that 'if the belief of power had depended, not on instinct, but on reason, it would have rested on a principle of surer evidence' [Brown, 1805, p. 46. Shepherd is not convinced by Brown's argument, and she objects to his founding of belief on 'inferences of imagination' and the 'blind impulse of faith' [Shepherd, 1824, 135 ff.]. Her 1824 Essay takes up the challenge to provide a foundation for the causal relation in reason. Of course, most of Brown's arguments are offered in support of Hume, so much of Shepherd's 1824 discussion appears to be directed against Hume.² It is clear, however, both from Shepherd's linking of her own text with Brown's, and from the manner in which she argues, that it is her intention to respond to Brown's negative verdict on reason as it is to offer a response to the atheistic tendencies that she sees in Hume.

Against Hume and Brown, Shepherd aims to show that reason does lead us to the discovery of a necessary connection between cause and effect. In her argument, Shepherd advances a line that combines a posteriori reasoning with

¹The just and beautiful analysis which reduces our expectation of similarity in the future trains of events to intuition, we may therefore safely adopt, without any fear of losing a single argument for the existence of God; — till it be shewn, that physical demonstration itself is not dependent on an instinctive principle, and that, hence, if the belief of power had depended, not on instinct, but on reason, it would have rested on a principle of surer evidence.

²Shepherd addresses Brown (and William Lawrence) in the final two chapters of her 1824 treatise.

an appeal to a priori causal necessity. Her object is to reject Brown's appeal to intuition as well as Hume's associationism. The above five propositions frame Shepherd's critical response.

In discussing her first proposition, Shepherd reasons "That reason, not fancy and 'custom', leads us to the knowledge 'That everything which begins to exist must have a Cause.' Shepherd claims that the causal axiom follows from the impossibility of conceive of causes and effects existing apart in nature without contradiction [Shephard, 1824, p. 30]. Taken as a bald assertion, that is, without an appreciation for Shepherd's positive doctrine of causality and its 'manner of action', her position is hard to fathom. Shepherd reasons that when Hume denies the causal axiom, he asks us to imagine an effect 'non-existent this minute' and 'existing the next'. In saying as much, Hume 'has no other way of supporting his own notion of the beginning of existence by itself', she continues, except under the idea of 'an effect in suspense'. This supposition, she says, 'begs the question for the necessity of its correlative, i.e., its cause'. Her point is that there is no way to meaningful discuss the notion of causality without also employing the notion of effect. The two are always bound up together in our representations.

The second proposition is defended by appeal to positive claims. Specifically, Shepherd proposes that an empirical act of introspection leads the mind to the discovery of necessary connection founded on the causal axiom that 'Whatever begins to exist must have a cause'. For, the determination of anything that begins to exist requires the inclusion of the idea of a cause in our representations, and it follows that any attempt to think 'dependent qualities that begin to exist' as uncaused leads to contradiction [Shepherd, 1824, pp. 46–49]. As such, Shepherd maintains, 'when the mind perceives by what passes within itself, that no quality, idea, or being whatever, can begin its own existence, it...perceives the general necessity of a cause for every effect' [Shepherd, 1827, p. xv]. Thus, empirical introspection and deductive analysis are both required for the mind to gain the knowledge that a representation contains the notions of cause and effect. This causal relation is founded on a necessary connection, an a priori causal axiom that plays a role in concept formation itself. Hence, Shepherd has in view an alternative account of how ideas of causality are acquired — to wit, they are acquired in virtue of objective, a priori features already built into representations when we first inspect them.

With this in mind, Shepherd sets out to define a more 'philosophical' notion of cause and effect. What was wrong with the former? Mainly, Shepherd thinks, the appeal to antecedence and subsequence. Indeed, Shepherd holds that ideas of cause and effect are mixed together with other sensible ideas in the process of concept formation. As such, Shepherd rejects the definition of 'causality' in terms of antecedence — a the hallmark of the empiricist notion of 'causality'. As Shepherd explains, the empiricist doctrine rests on a faulty analysis of causation in terms of temporal 'antecendency' and 'subsequency'. Hume is wrong, she reasons, to say that noticing the temporal order of sensible qualities is an essential characteristic in the formation of causal judgements. Contra Hume, she maintains that sensible qualities give rise to ideas of invariable sequences, but that the compound objects that are considered by the mind have ideas of causa

and effect and sensible qualities mixed together in the very moment of formation. As such, temporal succession is not essential to the definition of causality; it is merely a by-product of our abstract analysis of the causal relation in the representational object.³

Shepherd's further responses to Hume are founded on her alternative account of two sense of necessary connection. What she appears to have in mind are two explanation of necessary connection considered and rejected by Hume. The first of these accounts is based on the claim that necessary connection is discovered by reason. The second account is based on the claim that necessary connection can be discovered empirically. Hume denied the former on the grounds that effects cannot be deduced from causes prior to experience. That is, we cannot know that one kind of cause is invariably linked with one kind of effect by analysis alone. Hume denied the latter on the grounds that introspection cannot lead to discover of causal necessity. Shepherd rejects Hume's analysis, and argues that Hume is wrong on both counts. Hume, she thinks, relies on 'illogical' arguments and arrives at conclusions that are 'untrue'. For, we do in fact have knowledge of necessary connection.

[Mary Shepherd's Two Senses of Necessary Connection]

Lady Mary Shepherd's two major philosophical works, An Essay upon the Relation of Cause and Effect and Essays on the Perception of an External Universe, were published in 1824 and 1827. As the titles suggest, the subject of the former work is the causal relation and the subject of the latter is our knowledge of external existence. Evidently, the undertakings in the two books differ; however, as Shepherd is careful to point out, an underlying account of causality unites the two essays. Shepherd writes that

the subjects of the two Essays are capable of being considered independently, yet of throwing a mutual light upon each other.'... 'The analysis, therefore, of the operations of mind from infancy, throws light upon the knowledge we have of cause and effect; and the relation of cause and effect, when fully known and established, affords the only method of proof in our power, for the knowledge of external existence.' (1827, xiv-xvi)

It is apparent from the above remarks that Shepherd intends to rest her proof of external existence on an account of cause and effect. At the same time, she has elsewhere argued that ideas of cause and effect are to be explained in terms of the mechanical action of external objects on sense organs. This sounds circular, and Shepherd does in fact see the circularity. Yet, she immediately dismisses the threat, saying that her analysis will not amount to

reasoning in a circle if by carefully defining the nature of internal and external existence of objects perceived and unperceived, we gain thereby clearer ideas of the method and action of causation.' (1827, xii)

³The 1827 argument places greater emphasis on the analysis of sensible objects, although Shepherd mentions the point in her 1824 treatise as well. See [Shepherd, 1824, n. 42].

Shepherd's claim then, is that the circularity problem can be avoided if we attend to differences between the 'internal and external existence of objects perceived and unperceived' and 'the method and action of causation'. What could she possibly have in mind? As I will show, Shepherd's two senses of necessary connection, when understood with attention to these distinctions, shed light on her response to the circularity problem.

To begin, we will need to consider the two senses of necessary connection described in Shepherd's 1827 Essays. As Shepherd explains,

The necessary connection [therefore] of cause and effect arises from the obligation that like qualities should arise from the junction, separation, admixture, & c. of aggregates of external qualities. But the necessary connection of invariable antecedency and subsequency of successive aggregates of sensible qualities' arises from the necessity 'that there should be invariable sequences of effects, when one common cause (or exterior object) mixes successively with different organs of sense, or various parts of the human frame, & c. (1827, 130-1)

Notice that Shepherd invokes the distinction between internal perceived objects and external unperceived objects in defining her two senses of necessary connection. Internal perceived objects are, Shepherd maintains, compounds of ideas and sensible qualities. They are determined to the mind in representation, and originate in the actions of exterior objects on the sense organs. By way of contrast, external unperceived objects, she says, are unknown causes of sensible qualities. These unknown causes afford an indirect basis for inference about external existence. As all of this still sounds very circular, we will need to look more closely at the details of Shepherd's account of necessary connection to see whether she succeeds in escaping the circularity.

The first sense of necessary connection that we will consider is what Shepherd calls 'the necessary connection of invariable antecedency and subsequency'. According to Shepherd, the unknown causes in nature designate 'successive aggregates of sensible qualities' to the mind. When such 'successive aggregates of sensible qualities' are named, ideas of cause and effect are included in their nomenclature. As such, the name of a perceived internal object is necessarily connected with a particular aggregate of qualities. (1824, 154) For, insofar as successive aggregates exhibit invariable antecedence and subsequence, they exhibit necessary connection. That is, we cannot consistently think that certain antecedent qualities [ones named 'fire'] should arise without also expecting that certain subsequent qualities ['light', 'heat', & c.] should arise and vice versa (1824, 154).

Shepherd denies that the necessary connection of invariable antecedence and subsequence gives evidence of causal connection. On her view, the only things that can be considered actual causal objects are the exterior objects in nature. The invariable succession of internal objects is nothing more than an invariable succession of sensible effects. This distinction is important to Shepherd, who

invokes it in rejecting Hume's definition of causality based on 'the customary antecedency and subsequency of sensible qualities'. Hume errs, she thinks, because he mistakenly speaks of sensible qualities that have already been determined to the mind as causal objects. Shepherd argues that such perceived qualities are properly considered to be dependent effects. She writes that the

[This] impossibility of sensible qualities, being the productive principle of sensible qualities, lies at the root of all Mr. Hume's controversy concerning the manner of causation; for he, observing that such ideas could only follow one another, resolved causation into the observations of the customary antecedency and subsequency of sensible qualities. But objects, when spoken of and considered as causes, should always be considered as those masses of unknown qualities in nature, exterior to the organs of the sense, whose determination of sensible qualities to the sense forms one class of their effects... [Shepherd, 1827, pp. 126–127]

Given Shepherd's above remarks, it is no surprise that she goes on to reject Hume's associationist doctrine of causality. Hume is simply wrong, Shepherd maintains, to suppose that the order of sensible effects yields an adequate basis for causal judgement. Hume's associationism cannot yield ideas of cause and effect at all, but only ideas of invariable or necessary connection between masses of sensible effects. The latter, Shepherd reasons, are not related as cause and effect.

Having rejected Hume's account of causality, Shepherd proposes that reason plays a significant role in our coming to have knowledge of 'the necessary connection of cause and effect' [This is the second of our two senses of necessary connection.]. Specifically, it is through reason that we gain knowledge of the causal axiom 'That everything which begins to exist must have a cause' and the causal principle 'That like Effects must have like Causes.'. As I will show, Shepherd treats both as foundational for knowledge, assigning them something along the lines of Kantian a priori status.

Shepherd claims that the causal axiom is a 'universal perception which ought to govern every deduction of philosophy' (1824, 291). This axiom, she says, is initially discovered through introspection and analysis of the 'manner and action of causation'. For when 'the mind perceives by what passes within itself, that no quality, idea, or being whatever, can begin its own existence' it 'perceives the general necessity of a cause for every effect'. Shepherd illustrates her point as follows:

Here is a new quality, which appears to my senses: But it could not arise of itself; nor could any surrounding objects, but one (or more) affect it; therefore that one, (or more) have occasioned it, for there is nothing else to make a difference; and a difference could not 'begin of itself'. (1824, 43-4)

In this way, Shepherd thinks, 'reason, not fancy and 'custom', leads us to the

knowledge of the causal axiom "That everything which begins to exist must have a Cause".

Shepherd's position then, seems to be that the causal axiom follows from the impossibility of conceiving of sensible effects that begin to exist as uncaused. Taken as a bald assertion, that is, without much appreciation for Shepherd's doctrine of causality, her claim is hard to fathom. It might appear, for example, that Shepherd commits a fallacy when she says that to deny her causal axiom leads to contradiction. For, as Hume showed, the principle that 'All effects have causes' cannot be used to justify the inference that 'All events have causes'. Shepherd, however, denies that there is an empirical distinction to be made between sensible effects and events, since 'objects usually considered as effects' always appear to us as 'dependent qualities' that 'begin to exist'. Hence, as a matter of psychological fact, the 'dependent qualities' of which we take notice are one and all felt events that begin to exist. Given this assumption, the causal axiom follows as a 'universal perception', and it can be shown that any attempt to think 'dependent qualities that begin to exist' as uncaused leads to contradiction.

Shepherd further claims that all empirical questions concerning cause and effect depend on the general question of whether causes must necessarily be connected with their effects. For example, the a posteriori question of whether particular objects called effects necessarily require causes for their existence, depends on the truth of the universal perception of the causal axiom. As Shepherd explains:

It may be plainly seen, that the first of these questions is sunk in the latter, because, if objects usually considered as effects need not be considered as effects, then they are forced to begin their existences of themselves; for, conjoined or not to their causes, we know by our senses that they do begin to exist: we will, therefore, immediately hasten to the consideration of the second question, which may be stated in the following terms: Whether every object which begins to exist must owe its existence to a cause? (1824, 34)

Similarly, Shepherd argues that it is only after the general proposition that 'like Causes in general, might necessarily be connected with like Effects' is known 'from some process of reasoning; although neither before nor after experience' that 'the particular kind of Effects from given Causes should be discovered.' (1824, 139)

In developing the latter point, Shepherd introduces a sense of a priori that extends beyond what Hume would have understood by the term. For Hume, to say that something is known a priori is just to say that it is analytically true; for Shepherd, to say that something is known a priori is to say that it is known 'from from some process of reasoning; although neither before nor after experience'. Since Shepherd accords the causal principle an a priori status (1824, 139), it is safe to infer that she also accords a priori status to the causal axiom – the 'universal perception which ought to govern every deduction of philosophy' (1824, 291). Her view of a priori knowledge is perhaps best understood in

conjunction with Kant's famous remark (made in the Introduction to his first Critique) that 'though all of our knowledge begins with experience, it does not follow that it all arises out of experience'. What Kant means is that we may discover a priori truth with the help of experience, but that our justification for such truth is itself independent of particular experience. This is a good way to understand Shepherd's view that a posteriori questions concerning necessary connection are 'sunk in' a priori ones.

Shepherd elaborates on her above view, providing a separate argument to show why we are justified in claiming to know that natural phenomena exhibit necessary connection. The argument is intended to prove, against Hume, that 'Nature cannot be supposed to alter her Course without a contradiction in terms' and 'that Custom and Habit alone are not our guides; but chiefly reason, for the regulation of our expectations in ordinary life'. Shepherd's position is that 'necessary connexion must take place between like objects on all future occasions, from the obligation that like Causes have to produce like Effects'. Her account makes appeal to a two-step view of experimental reasoning:

Thus all experimental reasoning consists in an observation, and a demonstration, as has been shown; –an observation whether the circumstances from which an object is produced, and in which it is placed, are the same upon one occasion as upon another; –and a demonstration, that if it is so, all its exhibitions will be the same. (1824, 108)

Consider, for example, a case in which 'an appearance of fire' is 'doubted, as to its being more than a mere appearance of it'. (1824, 123). In its analysis, the mind takes notice of 'like qualities' and 'invariable sequences of effects' in the sense objects. We also recall that the mass of sensible qualities named 'fire' is necessarily connected with a particular aggregate of qualities. For, as long as we preserve our sense of the term 'fire', the word 'fire' is necessarily connected with ideas of 'heat', 'light', 'combustion', 'capable of being produced when flint is struck by steel', and so on (1824, 154). Thus, 'the moment it [the appearance] were known to have been elicited from the concussion of flint and steel, there would no longer be a doubt on that matter [that the appearance is in fact an appearance of 'fire']' (1824, 123-4).

Should there remain any further doubt, an experimentum crucis may be performed:

Then if any case did the question arise, whether those objects usually considered as flint and steel, were truly such, it would be thought a proof in the affirmative, if upon their concussion they could elicit a sensible spark. (1824, 124)

Such analysis and experiment regarding the invariability of the sequence leads us to conclude that there probably exists a causal connection:

Philosophers might imagine the secret powers of the whole to be altered; but plain understanding would consider the entire coincidence to be too great and remarkable to arise from chance. Such sensible causes, giving birth to such sensible effects, they would suppose formed a connection of the highest probability, whence to form a judgement, that the whole secret powers of each were similar.' (1824, 124)

In the second step, the mind concludes that 'after the application of an exact experiment, it is impossible to imagine a difference of qualities to arise under the same circumstances':

[And] in such cases of high probability the mind is as much determined to action, as by demonstration. It cannot stand hesitating, and therefore 'takes a step,' (in arguing from the sensible qualities to the future effects of things,) governed by the high probability founded on REASONING 'that they ARE' connected with like secret powers, on which the Effects entirely depend. (1824, 124)

What Shepherd proposes then, is an 'epistemological ascent' from introspection and empirical generalization to the discovery of necessary connection. Moreover, establishing instances of necessary connection between cause and effect depends on the a priori causal principle:

Frequency of repetition, abstracted from the principle of CAUSA-TION as a CONCLUSION already drawn from 'general reasoning,' is not a circumstance to generate such a principle [the causal principle], either from custom, or aught else; but being previously known and believed in; frequency of repetition becomes legitimately to be considered as an Effect from a Cause, equally constant and general in its exhibition; and thereby begets a reasonable, as well as a customary dependence, upon the necessary connexion, that is between such regular Cause and Effect. (1824, 120-1)

We now have a better understanding of Shepherd's views on necessary connection, the internal and external existence of objects perceived and unperceived, and the manner and action of causation. Before going any further, we should pause and take stock of Shepherd's progress with the circularity problem. A Humean would doubtless object that Shepherd's account is based on her mistaken assumptions about representation, and that her appeals to deductive tests are therefore useless to assist in her cause. Moreover, Hume clearly rules out the legitimacy of appeals to experimental philosophy to justify our expectations for the future. He remarks that such appeals 'must evidently be going in a circle and taking that which is the very point in question for granted.' Why then, does Shepherd think that she has escaped the circularity charge and provided a basis for proof of our knowledge of external existence? For Shepherd does in fact claim that on her account 'the mind does not reason from the Effects to the causes; and from the Causes back again to the Effects' (1824, 124-5). What then, does it do instead? Presumably, it enlarges or even escapes the vicious circularity through experimental reasoning in which it is shown that a posteriori causal claims are founded on a priori propositions such as the causal principle. Thus,

in addressing the circularity problem, Shepherd gives a necessitarian response to Hume.

Shepherd's necessitarian response might not satisfy the post-Humean critic of causality; however, it does count as one kind of answer to Hume. Moreover, her response is not an entirely new one. It has earlier Continental roots, especially, but not exclusively, in Kant. Kant's response to Hume was to show that the concepts and propositions of metaphysics and science have objective features that can in fact be known a priori. Specifically, Kant argues that metaphysical concepts such as causality are known a priori, and are therefore certain, necessary and universal. Included by the subject in representation, they serve as a guide to inference about the outer things, enabling us to bridge the gap between subjective representation and objective knowledge of an external world. Shepherd's response to Hume is based on similar claims. For Shepherd, not only do we include ideas of cause and effect in our representations, but necessary connection is justified by appeal to axioms and principles that are known a priori. So, like Kant, Shepherd introduces a priori epistemic constraints in her reply to Hume. These constraints supply the basis for inference regarding external existence. Indeed, the force of Shepherd's answer to Hume seems to rest on her view that questions relating to a posteriori knowledge of cause and effect must be answered by appeal to questions pertaining to a priori knowledge of the causal relation. So, in this respect, Shepherd is again reminiscent of Kant.

But the similarities between the responses of Shepherd and Kant do not end here. As I will show, there is a further respect in which Kant's response to Hume is helpful for appraising the general aims and significance of Shepherd's philosophical contribution and her effort to avoid the circularity problem. In order to pursue this comparison and the circularity question further, we will need to more fully consider Shepherd's view of causation and its connection to her epistemology.

In her 1827 Essays, Shepherd continually returns to these a priori epistemic criteria. There, she draws attention to the fact that all knowledge claims turn on reasoning about causes. Once the varieties in sensation have been detected and analysed, we are able to infer, on the basis of the causal axiom, the existence of continuous, external, and independent objects. As Shepherd writes, 'continuous existence is known by inference, not by sensation; for every sensation passes away, and another is created? but none of these, in its turn, could 'begin its own existence;' therefore they are but changes upon the existences which are already in being? they are effects requiring causes. But as each mind could not change, unless interfered with, therefore the interfering object is exterior to the mind'. She later adds that 'Those circumstances which go to prove that there must be truly outward causes, for particular sensations, prove them to be independent causes of those sensations.'

Shepherd's continual return to the subject of causality in the 1827 Essays is, of course, to be expected. Her expressed intention is to rely on cause and effect in proving knowledge of external existence. As Shepherd writes, '...the question concerning the nature and reality of external existence can only receive a satisfactory answer, derived from a knowledge of the relation of Cause and Effect.'

For Shepherd, the repeated references to the causal axiom and the causal principle are very deliberate. Indeed, it seems that Shepherd holds that subsumption under the causal axiom and the causal principle generalize to everything in creation, which is itself, Shepherd supposes, causally determined. To 'understand God aright' she says, 'he cannot work a contradiction; he cannot occasion the same objects without any alteration amidst them supposed to produce dissimilar effects.' What Shepherd means, effectively, is that because God created a deterministic world, our knowledge of the world must be consistent with the causal principle. As Shepherd claims, 'All laws of nature are comprehended in one universal law, that similar qualities being in union, there will arise similar results'. Implicit in all of this is are two important claims: The first is that God made perception such that it must conform to the ideas of causality expressed by the axiom 'every event has a cause'. As such, every event in the universe conforms to the causal axiom, not only by having a cause, but also by being such that it could not exist without a cause. The second important claim is that God made the world such that nature must conform to the causal principle that 'like effects must have like causes'. Hence, all objects and events in the world conform to the causal principle 'That like cause must have like effect'. On the strength of the above account, Shepherd concludes that all empirical laws must be 'comprehended under' both the causal axiom and causal principle.

An interesting implication of Shepherd's view is that every law of nature is a necessary law in virtue of its following analytically from the causal axioms and principles used by God in creating the world. Moreover, potentially, any empirical truth, when fully understood, might be seen to be a necessary truth. This view collapses the traditional distinction between laws of nature and the propositions of mathematics. Consider, for example, Shepherd's interpretation that Newton should rightly attribute necessity to the law of gravitation. Shepherd doubts that there could have existed even 'the slightest shade of difference between the degree of his [Newton's] assent to this inductive result, and that extorted from him by a demonstration of Euclid [?]' On her view, the shared degree of necessity underlying mathematical theorems and the law of universal gravitation follows because both must have one and the same foundation, namely, the causal axiom. As Shepherd explains, 'the doctrine of causation is understood by scholars as the base on which the truth of every theorem is [surely] built.' For, 'when objects are formed the same upon one occasion as another' she reasons, 'their qualities, properties, and effects, will be similar.' She adds that 'It is this proposition on which mathematical demonstration, and physical induction equally, and only, rest for their truth.' Thus the certainty in mathematics is dependent on the manner and action of causation that we trace in the 'original formations of the objects', and necessity in physical laws follows along similar lines. Physical laws are not merely contingent, they are also necessary. Shepherd concludes that, 'the science of mathematics is truly but one branch of physics' since 'all the conclusions its method of induction demonstrates, depend on the truth of the proposition 'That like cause must have like effect'. Shepherd holds that this proposition is 'the only foundation for the truths of physical science' and 'gives validity to the result of any experiment whatever'. It ranks mathematics as a species under the same genus'; because insofar as 'the same proposition is the basis, there is truly but one science, however subdivided afterwards.'

Given what has been said so far, the close connection that Shepherd draws between causality, mathematics, and other sciences is not that surprising. Shepherd makes it clear that causal reasoning is central to just about anything that could deserve to be called 'knowledge'. This is, evidently, quite simply a consequence of the metaphysically deterministic world that God has created. There are, of course, precedents for the view that necessity in knowledge follows from the way that God made the world. Kant, for example, held that there is a unity of visible and invisible worlds, and that this unity justifies the appeal to subsumption as a criterion of truth. Kant links his appeal to unity and subsumption to a natural drive on the part of reason to unify knowledge. He explains in his Critique of Pure Reason that empirical concepts and laws must be thought to be necessary because reason regards them to be part of a unified order of nature (B 671-B 680). Kant describes the relationship between particular empirical claims and the unity of the 'order of nature' in just this way:

...that we are justified in declaring all possible cognitions – empirical and others – to possess systematic unity, and to be subject to general principles from which, notwithstanding their various character, they are all derivable – such an assertion can be founded only upon a transcendental principle of reason, which would render this systematic unity not subjectively and logically – in its character of a method, but objectively necessary. (Kant, CPR, B 676)

Kant's view then, is that our knowledge of empirical concepts and laws is partly the result of subsumption under a few principles discovered by reason. Thus, the similarities between Kant and Shepherd do not end with the appeal to a priori principles. There is also a similar tendency to subsumption evident in both thinkers. Like Kant, Shepherd's appeal to a priori elements in representation is only part of the story when it comes to empirical truth. She also has other methodological considerations in view – second order considerations such as unity and subsumption that supply further criteria for judging the objectivity and necessity in knowledge. An important difference for Shepherd, is that on her view subsumption is a legitimate methodological goal of understanding itself. Presumably, this is because God intended us to have knowledge of the physical world, and so created the world using ideas that resemble the universal perception of the causal axiom and the causal principle governing nature.

We have now considered Shepherd's senses of necessary connection, her view of the manner and action of causation, and the implications for our knowledge of causality and external existence. However, we have yet to answer our original question; namely 'Why does Shepherd summarily dismiss the circularity problem in her proof of external existence?' Having carefully distinguished external unperceived objects, internal perceived objects, the different senses of necessary connection, the manner and action of causation, the causal axiom and the causal

principle, we see that Shepherd has in fact taken steps to address the circularity problem. Her efforts to avoid circularity can be linked to the two kinds of epistemic constraints on empirical truth implicit in her accounts of necessary connection. First, there are the constraints on empirical knowledge from the direction of the causal axiom, the causal principle, and their roles in representation. Secondly, there are the constraints supplied by unity and subsumption in our knowledge of nature. Shepherd, like Kant, takes both sorts of epistemic constraints quite seriously, and it is perhaps in view of these constraints that she anticipates an escape from circularity. For, in thus widening her account of necessity and its role in empirical truth, Shepherd extends her view of scientific knowledge well beyond the empirical generalisation view that Hume likely had in mind when he claimed that an appeal to experimental philosophy would amount to a circular justification for our future expectations.

Hence, Shepherd's senses of necessary connection, understood in their full complexity, extend further support for her claim that we can draw inferences from the marks of objective reality to knowledge of an external world. The success of such a strategy is surely open to dispute, but in the end, it helps to widen the circle enough to make room for a more compelling account of the inferential and subsumptive character of our knowledge of external existence than was offered by her Scottish predecessors. Most importantly, it enables Shepherd to develop a representational theory that is less obviously circular –if not entirely free of the circularity – that she so readily dismisses.

[Shepherd's Reply not Scholastic]

Shepherd's full response to Hume then, includes the claim that we do have knowledge of necessary connection. There are two basic components to her argument. The first one establishes that representation itself depends upon a 'universal axiom' – the causal axiom that 'whatever begins to exist must have a cause'. The second one establishes a non-logical sense of causal connection that ultimately argues that introspection is involved in the discovery of this sense of necessary connection. Shepherd further claims that necessity may be attributed to external existence as well.

Given this picture, one objection that might occur to the reader, as it did to one of Shepherd's early critics, is that Shepherd's reply to Hume is scholastic. That is, one might object that Shepherd's argument simply amounts to a scholastic appeal that the causal necessity that we perceived is a real property of external objects. John Fearn, for example, seems to suggest that Shepherd acquired scholastic leanings from her earliest instructor [Fearn, 1828, p. 632].⁴ However, the criticism is unfair. For, unlike the scholastics, Shepherd rejects the view that we can have direct knowledge of the real essences of exterior objects. Indeed, she lays stress on her rejection of the point. For Shepherd, knowledge of the 'natures' of things amounts to knowledge of the elements of 'perceived, internal objects'. As such, knowledge is understood to involve subjective and objective elements that come together in the act of representation and that account for the objectivity in representations. Scholastic accounts of differ in

⁴Fearn, 632. CHECK THIS.

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that they are based on a claim to direct realism that places little emphasis on empirical accounts of representation. As such, they offer no means of explaining error in judgement or of distinguishing between merely subjective and objective elements in knowledge.

There is, in addition, another reply that one can make on Shepherd's behalf. Shepherd, like her modern counterparts, is principally interested in analyzing the functions and activities of the human mind. Accordingly, she appeals to introspective analysis of the mind's activities and the 'manner and action' of causation. In effect, she addresses the 'enormous oversight' that Herschel noticed in Brown, namely, the omission of 'a distinct and immediate personal consciousness of causation, in his enumeration of that sequence of events, by which the volition of the mind is made to terminate in the motion of material objects' [Blakey, 1850, n. 31]. In doing so, Shepherd elaborates a 'context of discovery' for causal necessity — a context in which the a priori causal relation is uncovered through introspective analysis. Hence, introspective analysis of the activities of the mind forms the basis for her discovery of causal necessity. ⁵ Hence, the second point that can be raised in response to charges of scholasticism is that Shepherd's philosophy, unlike scholasticism, aims at a philosophy of mind.

Hence, an important reason for describing Shepherd's account as post-scholastic is that she explains causal representation within the context of the nascent epistemologies and philosophies of mind articulated by thikers such as Reid, Stewart, Brown and others. Having been raised and educated in Scotland, Shepherd was

⁵Robert Blakey gives a sympathetic portrayal of Shepherd's view of the mind and perception in his A History of the Philosophy of Mind [Blakey, 1850, vol. ix; pp. 39-46, 609-610]. Blakey devotes a considerable number of pages to Shepherd. Quite appropriately, he begins by locating the basis of her criticism of Hume. He reminds the reader that Hume had 'publicly promulgated the doctrine' that 'we had no idea of causation whatever; but only that of two events following on another.' 'The appearance of a cause always conveys the mind, by a customary transition, to the idea of the effect' so that 'We may define a cause to be an object followed by another'. But, as Shepherd points out, Hume's account of how we come to form such ideas is very vague. According to Hume, ideas such as those of cause and effect are products of a 'feigned imagination'. That is, they are mere imaginings not susceptible to proof of existence. Hence, despite having presented a most obscure analysis of the mind's activity, ideas of cause and effect are attributes an imaginary status, and Hume succeeds in casting widespread and profound doubt on belief in external existence. As Blakey remarks, modified versions of Hume's doctrine were promoted by Reid, Stewart and Brown, so that Hume's view was 'very generally adopted by nearly all the Scottish metaphysicians [Blakey, 1850, p. 40]. Jennifer, do we need a volume reference for this? Indeed, Shepherd doctrine of perception is linked to an account that places emphasis on the 'manner and action of causation' as it is discovered in introspection. In particular, Shepherd holds that the causes of the general powers of sensation are not the same as those for particular sensations these are in fact distinct kinds of sensation. Hence, we are able to distinguish sensible qualities from ideas, and these from the sensation of the general powers of consciousness. In analysing sense objects, we discover two types of sensation mix together, and reason quickly proceeds to distinguish the various types of sensations. We then infer, using the causal principle, the properties of things in the external world. Moreover, since each particular sensation is always felt as an effect that begins to be, we are able to distinguish our general conscious awareness from particular ideas of sensation, leading us to discover the sensation of the 'self'. Hence we further discover the sensation of ourselves as continuing conscious capacities, and this forms the basis for personal identity [Blakey, 1850, pp. 44–46].

undoubtedly influenced by these local philosophies. Like her Scottish counterparts, Shepherd supplements Hume's simple account of mental association with a more developed philosophy of mind, one that, in her case, lays emphasis on the role of introspective attention in describing our perception and knowledge of inner objects [Robinson, 1977, vol. v, p. xxviii]. In many respects, her approach is perfectly in keeping with those of her contemporaries; only she tries to supplement the empiricist approach with a necessitarian account of causality and an appeal to the $a\ priori$.

Chapter 7

Modifications to Baconian Induction

To further understand the significance of Shepherd's philosophical contribution, we need to consider the sense in which her view represents a response to scepticism about scientific induction. Like her contemporaries, Shepherd seems to be sympathetic to the Baconian line on induction. That is, inductive reasoning is largely dependent on the process of data collection that guides empirical generalization and is based on a simple enumeration of instances. This view of induction, attributed to Bacon, was promoted by empiricists such as Hume. Although Shepherd expresses admiration for Bacon, and even seems to regard her own view of induction as a continuation of Baconian induction, her complications to the Baconian view of induction represent a departure from Bacon. Indeed, her account of experiemntal reasoning is perhaps best understood as a post-Baconian modification of the logic of induction.

Bacon is the authority on induction to which empiricists of Shepherd's day constantly referred. When Hume spoke of induction, he had in mind an account of induction as simple enumerative induction. This is no less true of later figures such as Stewart, Brown, and Shepherd.¹ By Shepherd's day, Hume had levelled his profound blow to our confidence in induction. Hume had shown that experience can only teach us that certain events have regularly preceded other events. Such knowledge of the past, he pointed out, does not in any obvious sense, guarantee that the future will resemble the past. The assumptions, for example, that the events in nature are causally determined and that nature itself is therefore uniform is an assumption for which no proof can be offered. Neither reason alone nor experience can tell us that a certain cause will or must lead to a certain effect. Indeed, for all we know, the course of nature could change. There is no contradiction in this possibility.

Of course, confidence that the future will resemble the past is requisite if

¹Hence, the reference to Baconian induction generally signifies enumerative induction rather than the whole of Bacon's pyramid.

our generalizations about experience are to carry the sort of universality and necessity required for predictions about the future. Without a proof that the future will resemble the past, our confidence in scientific induction is unwarranted. Recall that Hume dwelled on the point regarding proof of the reliability of induction, considering and rejecting the appeals to deductive and inductive arguments. In the end, Hume concluded, there was no justification for the assumption that knowledge about the past that must extend into the future, i.e., that the future must resemble the past. We have no rational justification for the expectation that the future will resemble the past.

In answer to Hume's scepticism, Shepherd proposed a modified theory of induction, effectively replacing the simple enumerative account in Hume. Expectation for the future, Shepherd argues, is 'founded upon much stronger principles than those of custom and habit':

It is founded

First, –Upon a quick, steady, accurate observation, whether the prevening causes are the SAME, from which an object is elicited in any PRESENT instance, as upon a FORMER one; –and,

2dly, —Upon a demonstration, that if the observation hath been correct, the result ?(i.e., the whole effects or qualities,) must necessarily be the same as heretofore; otherwise contrary qualities, as already discussed, would arise without a cause, i.e., a difference begin of itself, which has been shown to be impossible.

In order to see how Shepherd's view represents a departure from Hume's enumerative account of induction, let's consider the two steps in Shepherd's account of experimental reasoning. According to the first step, reasoning from phenomena involves comparing the contents of a given representation with the contents of similar previous representations. The object of this analysis is to decide whether the representations provides evidence that the 'prevening causes are the same' in both the present and past instances. On Shepherd's view, the analysis must reveal that our causal inferences were in the first place formed with the assistance of the causal axiom that 'whatever begins to exist must have a cause', which is akin to a psychological law of thought. Further to this, there is overwhelming evidence that establishes the truth of the causal principle 'that like effects give rise to like causes', which describes the necessity governing natural laws. We rely on the causal axiom and principle in gaining assurance that the causes in the present instance are the same as those in a former one. With this assurance in hand, Shepherd's next step appeals to a reductio style proof that appeals to non-contradiction of the causal principle and the causal axiom. Indeed, if the first step has been adequately performed, we can infer that the future will resemble the past.

Hence, on Shepherd's account of representation, the perceived object that is examined as phenomena in experimental reasoning is a already the product of an *a priori* causal axiom. This axiom acts as a psychological law, governing how ideas of relations and ideas of sensations are mixed together in the act

of representation. In deciding whether empirical generalizations based on past experience will hold into the future, these elements must be carefully examined, and the two-step procedure described above must be followed. It seems then, that Shepherd takes the causal ideas supplied by the mind to play a role in induction. This view extends well beyond what Hume had in mind by enumerative induction.

One of the best ways to appraise the significance of Shepherd's contribution is to set it against the methodological ideas of her contemporaries. Among those whose work is helpful in illuminating the direction of Shepherd's thought in 1824 and 1827, are John Herschel and William Whewell. Of the two, we know that William Whewell was one of those mentioned as a close confidante of Lady Mary Shepherd. It is very probable, however, that Shepherd knew Herschel as well.² Like Herschel and Whewell, Shepherd saw a need to supplement and elaborate on the 'Baconian' model of induction.

Herschel thought that the dominant Baconian model, with its appeal to agreement and difference, variations and residues, was an essentially correct, but incomplete picture of scientific method. Herschel is credited with having introduced two distinctions to supplement Baconian induction; namely, the 'context of discovery' and the 'context of justification'. In simple terms, Herschels' distinction rests on the claim that the principles governing scientific discovery and justification differ.³ In a limited sense, the distinction between discovery and justification is implicit in Shepherd's reply to Hume.

Shepherd's methodology presupposes that introspection and analysis of mental operations leads to the discovery of causal necessity. She is careful, however, to distinguish the discovery of causal necessity from the justificatory step. Indeed, it is with something akin to a discovery/justification distinction in mind, that Shepherd insists on her two-step method for establishing the basis for our expectations for the future. The first step, which involves ascertaining that the contents of a given representation strictly resemble the contents of previ-

²I have yet to determine whether there was any specific connection to Herschel. Herschel's diaries and correspondence show that he was connected to the group. [Evans, 1969].

³The context of discovery, Herschel said, does not always resemble the context of justification; a wild guess can turn out to be right, and it is no less valuable or credible than deduced hypotheses once it has been observationally confirmed. On Herschel's view, laws of nature were seen as involving both correlation of properties and sequences of events, evidently stemming from an assessment of complex phenomena. Examples are Boyle's Law that pressure is proportional to temperature over volume and Newton's third law of the equal action and reaction of motion. Another important point that Herschel made is that the context of discovery can be either inductive or deductive. An example of the former is Boyle's law, in which the correlation of properties is noticed through the assessment of a large sample of data. In the latter case, laws are formulated in a kind of problem solving activity whereby phenomena is 'saved' by the introduction of a hypothesis. Finally, Herschel also pointed out the importance of observation to the confirmation of laws and theories. Recognizing the importance of the 'severe test' in the context of justification. Herschel realized that if a law can be shown to apply in extreme cases which are nonetheless genuine tests, then there is strong confirmation. He also noted that instances of discovering that a law has a wider application than was initially thought turn out to provide additional confirmation. Thus, Hershel adopts a Baconian picture, but complicates it, adding emphasis on the role of creative imagination in discovery and the importance of severe tests in theory confirmation.

ous similar representations, depends on the prior discovery of the role of the causal axiom in representation. Accordingly, the phenomena is 'saved' by the empirical generalization that the present case is like former ones. However, a further justificatory step is now required. This second step is based on a 'crucial experiment' in which rests on the impossibility of contradicting the causal axiom. As such, Shepherd's two-step method appeals to an experimentalism in which inductive and deductive reasoning play distinct roles in the contexts of discovery and justification.

In a second effort to explain her experimentalism, Shepherd makes the point more clearly:

Thus all experimental reasoning consists in an observation, and a demonstration, as has been shown; –an observation whether the circumstances from which an object is produced, and in which it is placed, are the same upon one occasion as upon another; –and a demonstration, that if it is so, all its exhibitions will be the same [Shepherd, 1824, p. 108].

In the first instance, the mind takes notice of 'like qualities' and 'invariable sequences of effects' in compound sense objects, and the invariability of sequences leads us to conclude that there probably exists a causal connection [Shepherd, 1827, p. 131]. Next, an experimentum crucis is performed in which the mind considers whether the difference in qualities could have begun of itself, and concludes that 'after the application of an exact experiment, it is impossible to imagine a difference of qualities to arise under the same circumstances' [Shepherd, 1824, p. 129]. In other words, her view is that the probable knowledge rests on the discovery of what does take place on a given trial. However, this knowledge must be supplemented with a deductive argument to show that nothing else could ensue under exactly similar circumstances except if the causal axiom and principle were violated.

What Shepherd's two-step method further reveals is that the force of her answer to Hume rests on her claim that the justification of empirical knowledge a posteriori lead directly to questions pertaining to a priori knowledge of the causal relation. On this latter point, Shepherd is perhaps best understood in light of her remark in the 1824 treatise 'that the first of these questions is sunk in the latter'. Hence, what Shepherd holds is that a necessary causal axiom is the basis upon which all causal reasoning depends. Such a necessitarian answer might not satisfy every post-Humean critic of causality, but it does count as one

It may be plainly seen, that the first of these questions is sunk in the latter, because, if objects usually considered as effects need not be considered as effects, then they are forced to begin their existences of themselves; for, conjoined or not to their causes, we know by our senses that they do begin to exist: we will, therefore, immediately hasten to the consideration of the second question, which may be stated in the following terms: Whether every object which begins to exist must owe its existence to a cause [Shepherd, 1824, p. 34].

⁴Recall:

kind of answer to Hume. It is also apparent that, in a limited sense, Shepherd's methodology, like Herschel's, appeals to the distinction between the contexts of discovery and justification.

While the affinities between Herschel and Shepherd may be somewhat sketchy; the affinities between the views of Shepherd and Whewell are not. In particular, the theories of representation in both thinkers rely on apriorism, the mixing of ideas with mere sensation, and sensationism.

Like Shepherd, Whewell appeals to ideas contributed by the subject to argue that laws of nature contain necessity. Whewell says that ideas 'are the mental sources of necessary and universal scientific truths' [Whewell, 1860, p. 336]. These ideas, Whewell claims, 'are relations of things, or of sensations'. Sensation and ideas are always combined, and yet it 'must always be possible to derive one of these elements from the other, if we are satisfied to accept, as proof of such derivation, that one always co-exists with and implies the other'⁵. Also like Shepherd, Whewell holds that ideas are required to infer knowledge of external existence. [Shepherd holds 1-5 below (at least) to be true.][Whewell, 1858, vol. I, p. 34].⁶ In addition to the above similarities, Whewell further grants the plausibility of Shepherd's 'sensationism', i.e., her view that the ideas, as elements in perception, are a kind of sensation. Thus, ideas of the causal relation can correctly be termed 'sensations of ideas' in contrast to 'sensations of qualities'.⁷

The doctrine of Fundamental Antithesis is briefly this: That in every act of knowledge (1) there are two opposite elements which we may call Ideas and Perceptions; but of which the opposite appears in various other antitheses; as Thoughts and Things, Theories and Facts, Necessary Truths and Experiential Truths; and the like: (2) that our knowledge derives from the former of these elements, namely our Ideas, its form and character as knowledge, our Ideas of space and time being the necessary forms, for instance, of our geometrical and arithmetical knowledge; (3) and in like manner, all our other knowledge involving a development of the ideal conditions of knowledge existing in our minds: (4) but that though ideas and perceptions are thus separate elements in our philosophy, they cannot, in fact, be distinguished and separated, but are different aspects of the same thing; (5) that the only way in which we can approach to truth is by gradually and successively, in one instance after another, advancing from the perception to the idea; from the fact to the theory; from the apprehension of truths as actual to the apprehension of them as necessary. (6) This successive and various progress from fact to theory constitutes the history of science; (7) and this progress, though always leading us nearer to that central unity of which both the idea and the fact are emanations, can never lead us to that point, nor to any measurable proximity to it, or definite comprehension of its place and nature.

⁷Whewell explains,

But granting this form of expression, still a *relation* is not a thing or a sensation; and therefore we must still have another and opposite element, along with our sensations. And yet, though we have thus these two elements in every act as absolutely and exclusively belonging to one of the elements. Perception involves sensation, along with ideas of time, space, and the like; or, if any one prefers the expression, involves sensation along with the apprehension of relations. Percep-

⁵[Whewell, 1860, p. 470] Consider: s/o elements p. 470 Whewell – their inseparability except by inference may be what Shepherd's prismatic colours example is about.

 $^{^6\}mathrm{In}$ [Whewell, 1860, p. 307], Whewell explains the main tenets of his view:

It is evident that thinkers such as Hershel, Whewell, and Shepherd were deeply involved in the discussion and debate surrounding the causality and induction that followed upon Hume's philosophy. Whatever the precise connections between ideas and directions of influence, it is safe to say that Shepherd shared in the efforts advance thinking on induction. Like Herschel and Whewell, Shepherd clearly saw herself as building on a Baconian tradition in her analysis of experimentalism and causality. She evidently fell on the same side on the issue of apriorism as Whewell; but departed on this score from the likes of Herschel and others. Seen in this light, Shepherd's 1824 treatise was part of a new and promising strategy of proposing modifications to Baconian induction in the effort to answer Hume.

tion is sensation, along with such ideas as make sensation into an apprehension of things or objects [Whewell, 1860, p. 467].

Chapter 8

The Philosophical Radicals and Systematic Philosophy

A full appreciation of Shepherd's epistemology requires attention to the element of systematicity in her 1827 treatise. Her influences, in this respect, may include French philosophers such as Condillac. Sources closer to home may include Mill and Ricardo.

The exact nature of the Shepherds' social connections to Philosophical Radicals such as Mill and Ricardo is unknown. What is known, however, is that David Ricardo was one of the important intellectual confidants of Lady Mary Shepherd. It is in fact possible to place the Shepherd's together with Mill and Ricardo. For, on 20 August 1818, Henry John Shepherd franked a letter sent from Ricardo to Malthus. In the letter, Ricardo writes (from his Gatcomb Park estate in Minchinhampton) to say that James Mill had arrived the day before and that Malthus's company is strongly desired by the party at the estate. [Hyman, 1982, p. 78]. ¹ The story of the is significant to us because it puts Mill, Ricardo, and the Shepherds together in 1818 — at the very time when Mill and Ricardo were known to have returned to Hume, Kant, Brown, and causality.²

To the Philosophical Radicals, understanding social issues was a deeply theoretical enterprize. The immediate causes of social problems might included unrepresentative government, inflation, excessive taxation, and so on; however,

¹Henry John Shepherd was M.P. for Dorsetshire, Shatftesbury from 1818-1820, and that probably had something to do with the meeting in question. Parliamentary reform and political economy would have been topics of considerable interest to Henry John Shepherd, who published his A Summary of the Law relative to the Election of Members of Parliament in 1825 [Shepherd, 1825a]. Though there would have been political and philosophical differences within the group, it is clear that they shared a desire to get at fundamental principles governing the economy as well as an interest in reform.

²The letter also shows that the Shepherd's were connected to the radicals shortly after the famous 1818 Westminster election. The Mills were openly critical of the trial and imprisonment of Carlile, but this affair took place later, in 1819. Mill felt that some of his friends had betrayed the reformist principles of their earlier days. He charged that the literary journals had abandoned the liberal cause.

the root causes were imagined to be located in much more abstract and remote corners — in the very laws of thought themselves. Lady Mary Shepherd, highly abstract in her thinking, would easily have identified with the approach of the philosophical radicals. She would have approved, one suspects, on their emphasis on the causal explanation and theoretical justification. Like the Philosophical Radicals, she believed that all systems of knowledge were connected, so an adequate account of social and political theory would ultimately be unified by an underlying account of causal knowledge.

James Mill, arguably the first in the line of so-called 'Philosophical Radicals', looked explicitly to writers such as Kant and Brown for ideas in developing his own theories. Brown was probably the first British thinker to begin to grapple with and develop the Kantian idea of the subsumptive character of science. Brown's own desire to make mental philosophy [?] 'scientific' led him to attempt to underwrite it with a Kantian foundation in his *Observations on the Zoonomia of E. Darwin*, published about 1796. [must get this!] Brown's effort caught the eye of Charles Villers, who mentioned the effort in a condescending footnote.³ Brown's interest in systematic philosophy herald an awakening appreciation for systematicity in British thought. Up to this point, the concept of systematic philosophy was perhaps primarily understood in terms of the Baconian notion of a scheme of classification. With Kant, however, there is an additional sense of systematic unity through subsumption under causal laws. Of course, for Kant subsumption is tied to the objective, a priori content of our representations — something quite foreign to Brown's approach.

The extent of Kant's influence on Brown is hard to estimate. Commentators have argued that Brown's work in the philosophy of the mind draws inspiration from continental thinkers such as Condillac. Here again, the principal source of inspiration can be traced to the idea that knowledge is systematic. According to Robinson, the idea of systematicity is found in both Condillac and Brown,

We find also in the genius of the Enlightenment the ubiquitous notion of system, the idea that in every domain of inquiry there is within reach an overarching set of principles or laws with which to connect the otherwise isolated links on the great chain of thought. Whether the philosophe's talent was addressed to politics or ethics, logic or philosophy, art or history, he was convinced that a successful effort on his part would yield a system[Robinson, 1977, p. xxxiii].

It seems then, that both Condillac and Brown were motivated by the desire to create a 'systematic' philosophy. ⁴ Brown, for example, held that all domains of knowledge, including theology, were unified by an underlying account of the

³I suspect that this footnote spurred Brown to write his largely negative 1803 review of Villers' *Philosophie de Kant.* James Mill also found something in Villers that merited his time and attention. Mill published a translation of Viller's *The Reformation* in 1805.

⁴Interestingly, not only are the connections between Kant and Brown, but some, including Villers, saw important connections between Condillac and Kant. Condillac, according to Villers, as a proto-Kantian insofar as he claimed that the development of a single foundational concept in the philosophy of mind should be the basis for the system of knowledge. This, in Villers' view, captures the spirit of Kant's transcendentalism.

mind — and particularly, by an account of sensation, cognition, and language. Ultimately, the whole system itself rested on an analysis of the causal relation. Brown describes his project of unifying the sciences under mental philosophy as follows:

'Such are the various lights in which the human mind may be regarded,—physiologically, ethically, politically, theologically. It is thus the object of many sciences,—but of sciences that, even when they seem most remote, have still one tie of intimate connection, in the common relation which they all directly bear to the series of feelings of the inquirer himself' [Brown, 1820, pp. 6–7].

5

James Mill would go on to deploy Brown's terminology and to accept Brown's claim regarding the psychological certainty of the causal relation. Indeed, Mill's philosophy reflects the same basic assumptions regarding the systematic framework of knowledge that we find in Brown. Moreover, like Brown, Mill was interested in Kant. By about 1818, he and Ricardo were at the helm of a second wave of interest in Kant's philosophy. [Bonar, 1887, p. 157]. ⁶It was this wave of Kant study that led to a better grasp of Kant's contribution in England.

In what way did Mill make use of the idea of systematic philosophy? Mill was noted for his commitment to a deductive system of philosophy founded in psychological certainty — namely, in laws of thought. Mill presumed that the principles of human nature are a priori and fixed, and that the true economic theories would follow deductively from knowledge of the fundamental principles of human nature. Ricardo shared many of Mill's theoretical assumptions. Credited as the founder of 'pure economic theory' — an approach that develops consistent theories by deriving consequences from a small set of assumptions — Ricardo was sharply criticized for his abstract approach in the field of political economy. Like Mill, Ricardo held that, if one's starting assumptions were true, and derived theories were logically consistent, then the whole system of knowledge would be true (and applicable to the real world) [Katouzian, 1980, p. 24]. Like Mill then, Ricardo was an admirer of subsumption and systematicity in scientific theory — influences that can indirectly be traced to thinkers such as Condillac, Kant, and Brown.

Lady Mary Shepherd, while intimately acquainted with Ricardo — and presumably Mill —, was primarily interested in epistemology and metaphysics. She wrote nothing on economic theory, but she did, like Ricardo and Mill, place great importance on abstract analysis, on the foundational role of causality, and on the development of an axiomatic, unified system of philosophy. As with Mill

⁵What Brown is getting at here is the idea that mental and physical feelings given in sensation can be scientifically and systematically described and ultimately traced back to something in human psychology that is intuitive certain; namely, the causal relation. [Brown, 1820, pp. 12–13].

⁶In his diary for March 1819, George Grote remarks that he had been discussing Kant with Mill and Ricardo. On Sunday, March 28th, he writes: 'Studied Kant until 1/2 past 8, when I set off to breakfast with Mr. Ricardo. Met Mill there, and enjoyed some of the most interesting and instructive discourse with them...' [Bain, 1882, n. 181].

and Ricardo, her sense of systematicity extended well beyond the usual sense of classification associated with the empiricist philosophy.

Shepherd's view reflects a similar appreciation for systematic thought as that found in Mill and Ricardo. Presumably, like them, she drew her inspiration from such figures as Condillac, Kant, and Brown. For this reason, Shepherd's connections to the Philosophical Radicals are instructive to those interpreting her work. While it would be very hard to establish the precise direction of political influence between Shepherd and her friends, the general similarity in the philosophical approaches of Mill, Ricardo and Shepherd suggest that they held common views on the roles of causality and systematicity in knowledge.

Like Mill and Ricardo, Shepherd appealed to psychological certainty, the unity of knowledge, and the *a priori*. For Shepherd, the appeal was directed against Hume. For Shepherd, the causal relation is the foundation for the necessary in all representation. For, 'when objects are formed the same upon one occasion as another, their qualities, properties, and effects, will be similar.' Hence, she adds, 'It is this proposition on which mathematical demonstration, and physical induction equally, and only, rest for their truth' [Shepherd, 1827, p. 279]. How do we discover this to be the case? Through abstraction, Shepherd writes. The 'faculty of abstraction', Shepherd writes, 'is truly the origin of all science' [Shepherd, 1827, p. 291]. For, it through abstraction of the parts of our representations that we discover the distinct ideas and sensations in representations, and, ultimately, knowledge of causal necessity.

Shepherd says of mathematics that 'THE DOCTRINE OF CAUSATION IS UNDERSTOOD BY SCHOLARS AS THE BASE ON WHICH THE TRUTH OF EVERY THEOREM IS SURELY BUILT' [Shepherd, 1827, p. 285]. What she means is that abstraction will reveal that the same causal relation underlying representation in general also underlies mathematical representation. Hence, the objects involved in mathematical demonstrations resemble one another 'because there is nothing to make a difference among them.' A cause 'C' is properly represented as part of the compound of 'A X B', so that 'C' is always included in the mixture of 'A X B'. So it is that in mathematical representation, the results of arithmetic combinations are 'included in' their statements [Shepherd, 1827, pp. 281–282].

The argument for the necessity in physical representations follows along similar lines. That is, true physical laws are found to be not merely contingent, but also necessary in virtue of the causal relation. In the physical case, new qualities that appear arise from a union of qualities in such a manner that every like union will give rise to the same new quality [Shepherd, 1827, p. 284].

In both cases, the argument for the necessity in mathematical and physical induction points back to the causal relation. Shepherd sees no essential difference between the two. Shepherd agrees, in fact, with LaPlace's assessment of the necessary status of Newton's law of gravitation. With Laplace, she holds that Newton would have attributed the same necessity to this physical law as to the demonstrative proof of his binomial theorems:

In short, did there exist the slightest shade of difference between

the degree of his assent to this inductive result, and that extorted from him by a demonstration of Euclid? Although, therefore, the mathematician, as well as the natural philosopher, may without any blameable latitude of expression, be said to reason by induction, when he draws an inference from the known to the unknown, yet it seems indisputable, that, in all such cases he rests his conclusions on grounds essentially distinct from those which form the basis of experimental science [Shepherd, 1827, p. 278].

7

Shepherd does, however, raise an important quibble with LaPlace. She says that LaPlace is imprecise in his description of Newton's method. For Shepherd, the necessity of Newton's binomial theorem and the law of universal gravitation must have one and the same foundation in the causal relation. Indeed, 'the science of mathematics is truly but one branch of physics' since 'all the conclusions its method of induction demonstrates, depend on the truth of the causal principle 'That like cause must have like effect' [Shepherd, 1827, pp. 278–279]. Hence, Shepherd ties her views of mathematical and physical induction to her view of the causal relation, arguing that the former depend for their certainty on the latter. That is, mathematical and physical induction equally depend upon the truth of the proposition 'That, when objects are formed the same upon one occasion as another, their qualities, properties, and effects, will be similar.' For, whether in mathematics or in physics, the objects are formed from aggregates according to the axiom 'That like cause must have like effect' [Shepherd, 1827, p. 279].

[cf. Stewart 1818 – criticism]

A similar sort of appeal to the role of the causal relation is typical of many of Shepherd's arguments. This is not really surprising; for, once she makes it clear that she takes causal reasoning is central to just about anything that could deserve to be called 'knowledge'. Shepherd makes no bones about her view of the importance of the causal relation.

Her arguments, it seems, generalize not only to the physical sciences, but to everything in creation, which is itself causally determined. Indeed, 'to understand God aright, he cannot work a contradiction; he cannot occasion the same objects without any alteration amidst them supposed to produce dissimilar effects' [Shepherd, 1827, p. 289]. Indeed, 'All laws of nature are comprehended in one universal law, that similar qualities being in union, there will arise similar results' [Shepherd, 1827, p. 329].⁸

⁷Shepherd criticizes the empiricist assumption that representation of exterior objects by means of the direct perception of primary qualities is an adequate interpretation of the basis for Newton's claim to objectivity. Such as view of his inductive method, she rightly notes, would be 'puerile and unphilosophical'. John Fearn fails to grasp her meaning [Shepherd, 1827, p. 289].

⁸Note that for Shepherd, a miracle is just an apparent deviation from nature's course as we understand it. No miracle could actually violate the causal law or nature's laws — a miracle is merely 'an exception to nature's apparent course' [Shepherd, 1827, p. 335]. This is also Babbage's later view of miracles.

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Shepherd's continual return to the causal principle is very deliberate, and strongly suggests systematic motivations. Like Mill, Ricardo, and others, Shepherd probably dabbled in and was influenced by the second wave of interest in Kant in England. Shepherd is sensitive to the epistemological virtues of subsumptive causal laws in science and metaphysics. As we have seen, for Shepherd, subsumption under the causal relation confers explanatory unity and necessity, increasing our confidence in the necessary status of laws. Like Mill and Ricardo then, Shepherd departs from the majority of her empiricist counterparts by requiring that epistemological criteria include both a priori and 'top-down' systematic considerations — the very combination of epistemological considerations that her common sense Scottish counterparts were loathe to accept.

Chapter 9

Empiricism and the Camera Obscura

Though not a scientist, Lady Mary Shepherd took a keen interest in the progress of science. 'My mother's own great power' her daughter reflects, 'lay in abstract thought of infinite comprehensiveness' [Brandreth, 1888, p. 119]. However, she liked to pick up from friends such as Charles Babbage and Mrs. Somerville, 'all possible beauties and curiosities in scientific results' [Brandreth, 1888, p. 118]. Hence, 'My mother's admiration of Mrs. Somerville's power of deep perception and accurate reasoning was very great; and the quiet charm of her manner and voice, gave to this admiration a great and friendly attraction.'¹

Given her intellectual milieu, it is not altogether surprising to find Shepherd appealing to scientific metaphors and devices to explain her epistemological views. She draws, for example, on the metaphor of the *camera obscura* to describe how the mind represents the external world. As we shall see, Shepherd's appeal to the *camera obscura* metaphor helps her to establish how her empiricism differs from that of her predecessors.

Shepherd's epistemology diverged from standard empiricist accounts. She agreed with Berkeley, for instance, that there were serious problems with the primary and secondary qualities doctrine. Specifically, her charge was that the account of how we acquire knowledge of primary qualities is incoherent. Strictly speaking, Shepherd reasoned, primary qualities cannot be sensations in

[1888, pp. 117-119][check pages]

¹Somerville, however, was not likewise moved by abstract questions and had a great desire to be 'common-place' in conversation. Brandreth explains:

Of her desire to be simply common-place in conversation, an illustrating anecdote may also prove a useful hint to the very obtrusive critics of the Bible, who think that the statements there ought to be scientifically correct according to modern knowledge. One of us once asked her, 'why, in answering our questions from time to time, do you always say "The sun goes round the earth," instead of the true way; 'and she replied, 'Because it is best always, when it can lead to no mistake, to speak in the ordinary language of the time.'

the mind, since they arise from the 'unperceived qualities of exterior objects' [Shepherd, 1827, pp. 21, 110–111, 248–249]. But how can such 'perceptions of extension, figure, solidity, motion, hardness, and softness' be 'unperceived' and 'totally unlike' sensation, she wondered.

It is the philosophy of these authors, that the primary qualities of bodies are objects immediately perceived to be *exterior* to the mind, whose essences also may distinctly be conceived of... These *exterior* qualities are, therefore, *perceived* NOT to be *sensible qualities*, but to be totally *unlike* them... Thus, the *perceptions* of extension, figure, solidity, motion, hardness, and softness, &c. *are* NOT *sensations of mind.*..[Shepherd, 1827, pp. 248–249].

There is then, an inescapable intelligibility problem for standard empiricist accounts. For, if all ideas must be perceived as sensations before the mind, and no sensation before the mind could arise from an *unperceived* quality of an exterior object, then how can the mind represent ideas of an external, unperceived world? As Shepherd frets, 'When such thoughts as these are still held as the doctrines of *common sense*, how shall there be future improvement in any department of philosophy? [Shepherd, 1827, p. 250]

Shepherd rejected attempts to forestall criticism of the empiricist theory of ideas through modification to the primary qualities doctrine. Thomas Reid, for example, tried to embellish the standard appeal to primary qualities by characterizing 'extension, figure and motion, as instinctive simple conceptions of understood qualities of external matter' [Shepherd, 1827, p. 71].

...[Reid] truly thought the senses could suggest the conception of the nature of the real essential primary qualities of matter, without such sensations becoming sensations, whilst the understanding was satisfied it was legitimate to do so, because 'instinct' compelled the mind to such a conception, and resolved the notion into a 'primary law of human belief,' which could not be disputed without disputing a first principle [Shepherd, 1827, pp. 110–111].

But, for Shepherd, what is still worse than an incoherent appeal to the primary and secondary quality distinction, is an attempt to shore up the doctrine by appeal to *instinct*. For this is also tantamount to self-contradiction. Indeed, it involves both the assertion and denial that the perception of primary qualities is immediate in sensation. Such embellishment only compounds the original atrocity of assuming that immediate access to primary qualities can provide grounds for knowledge of external existence. In any event, the underlying doctrine of perception on the received empiricist theory is seen by Shepherd as flawed, and it does not provide an acceptable foundation for our knowledge of external existence.

Shepherd made no bones about the fact that she was sympathetic to Berkeley's doubts about the primary and secondary quality distinction. With Berkeley, she flatly rejected the description of the idea of extension as denoting a 'quality of an external object':

There is here said to be, an intimate association between two *notions*, viz. those of *extension* and *colour*; whilst yet the word extension is said to express 'the quality of an external object,' instead of a *notion*; and as such must be incapable of associating as an '*idea*,' with the '*idea of colour*.' which is also said to be '*a sensation of the mind*.' The whole sentence to those who will examine it accurately, must appear to involve a contradiction [Shepherd, 1827, p. 247].

It is a misconception, Shepherd claimed, to say that primary qualities are properties of external objects and that they are directly perceived or intuited by the mind. The view implies the absurdity that *either* extension is *in* the mind with colour or that colour is *out there* with extension [Shepherd, 1827, p. 249].²

Though Shepherd rejected the foundation for realism in the empiricist theory of ideas, she nonetheless hoped to defend a form of realism. Shepherd's foundation, contra both Berkeley and the materialists, led to dualism. This dualism emerges most clearly in Shepherd's exchange with Fearn, whose materialist views she entirely rejected.³ The debate between Fearn and Shepherd centers around Shepherd's objection to Fearn's materialist claim that sensations are extended. Shepherd agreed that visible line and figure were *perceptions* of colour, but denied the conclusion that Fearn draws from this claim. Fearn reasons that perceptions of colour are nothing but sensation, and that such sensations of line and figure must themselves be extended. He added that anyone who maintains that perceptions are sensations is committed to the extended

²Shepherd also thinks that the mistaken primary/secondary qualities distinction is built into Hume's theory of human understanding. For, Hume, like other empiricists, held that we form ideas of primary qualities — sensations of exterior objects that literally, are unfelt. 'Mr. Hume' she says, 'has recourse, whence it is, that colour, sound, &c. as well as extension and solidity; i.e., all our perceptions of primary and secondary qualities, are thought to exist unperceived, when yet a perception certainly cannot exist unperceived, nor a sensation unfelt' [Shepherd, 1827, p. 21]. Shepherd disagrees strongly with this analysis of perception and sense objects, and so dismisses Hume, Reid, and Stewart with a single stroke, claiming that they follow a mistaken line of argument regarding external perception and the objects of perception. The problem then, for all the defenders of the primary qualities tradition, is that their view fails to supply a plausible and specific story about how representations can carry the marks of objectivity that reflect the structure of the external world. For this reason, Shepherd rejects all forms of the standard appeal to the primary and secondary quality distinction as a foundation for realism.

³[Shepherd, 1828; Shepherd, 1832a; Fearn, 1828]. The philosophical exchange can be traced back to an accusation of plagiarism made in 1817 by John Fearn against Dugald Stewart [Fearn, 1817]. This accusation concerns the view that visible line is merely the sensation of colour. In the letters through which we trace the exchange, it becomes apparent that Fearn sought to promote his own work by publicly involving Stewart's name in scandal. Stewart, who is at the end of a long and venerable career, declines to comment on Fearn's work. He rightly fails to take the accusation of plagiarism seriously, since doctrinal priority in this case might well be given to any number of writers on the subject of external perception. Fearn later repeats the charge of plagiarism against Shepherd, who in turn, defends both herself and Stewart by citing an earlier, eighteenth century source for the view. In 1796, Shepherd reports, Mr. Crisp said 'that visible figure was only known by the mental perception of contrasting colours' [Shepherd, 1832a, p. 706]. Stewart had declined to comment on Fearn's philosophy, in part because he was trying to complete his own work, but also because Fearn's materialist doctrine was so severely at odds with his own view.

nature of sensation, saying that he fails to see how Shepherd can be consistent in maintaining the distinction between ideal and real extension:

...her Ladyship, although she rationally admits that external unperceived objects or causes, and external space beyond them, have an extension really spread out, confidently, at the same time, insist that all the seemingly-extended things, which we perceive, and which we call heaven and earth, in as much as these things are nothing but sensations in our minds, are NOT REALLY spread out [Fearn, 1828, pp. 631–632]. JENNIFER, THIS WAS A GUESS AS TO WHICH FEARN IT WAS BASED ON THE PAGE NUMBERS.

Shepherd's reply to this charge was that perception and unperceived causes are different things requiring different definitions. External extension, she sais, is not itself an idea, but an unperceived cause, fitted 'to create or produce the idea of extension' and for the 'capacity for the admission of unperceived motion'. In contrast to this, ideal extension was 'a simple sensation of the mind relative to external extension'. Shepherd's strategy then, was to draw a fine line between the idealist and realist positions, maintaining both real and ideal extension, which she took to be different things requiring different definitions. She sums up her position as follows:[Shepherd, 1827, p. 386]

Thus I have said, 'Coloured extension is a compound sensation; the sense of motion is another; tangibility and extension are others; but their unperceived continually existing causes are independent of sensation, unperceived and unknown; and whilst their positive nature is unknown, yet their relative value among themselves is known to be equal to the relative variety of the ideas and sensations; i.e. to the effects they determine on the mind [Shepherd, 1832a, p. 702].⁴

Shepherd's principal claim then, was that ideal perceptions of extension are not to be confused with external causal agents, since they have distinct properties. For, 'the *idea* of extension will not produce in any other mind the idea of extension' nor will it 'admit of unperceived motion'. Ultimately, Shepherd concludes that 'each particular sensation must be the unextended quality of some kind of extension' whose real properties are known by inference.

In short, the sensible qualities FORM the sensible objects; but it is a reasoning arising out of a perception of the relation of these qualities; — of the different positions of colours in relation to motion; — of the knowledge of the place where we are, &c. by which external continuous existences are proved; a reasoning which Bishop Berkeley uses in proof of the independent existence of separate minds, and which reasoning and which minds he does not think can belong to dreams and frenzies, &c [Shepherd, 1827, p. 93].

⁴See also [Shepherd, 1827, Essays IV, XIII].

Thus, Shepherd rejects Fearn's materialism, which she claims implies the absurd view that there are actually extended things in the mind along with sensations of colour. Her own theory of colour vision maintains that there are both ideas of extended things and really extended things. The latter is known, but only by means of inference from the former.

Shepherd's dualist view also stands in contrast to Berkeley's epistemology. Berkeley, for example, helds that 'visible distance' is merely ideal, since perceived objects can be reduced to collections of immediately perceived sensations. Shepherd complains that Berkeley presents a simple-minded view of representation, saying that 'Berkeley never affixed the names of objects to anything, but the combined sensible qualities which the organs of sense helped to form'. It is by means of this strategy of oversimplification, which discounts the possibility of a more complex form of representational realism, that Berkeley commits the unsuspecting reader to subjective idealism. In fact, Shepherd charged that Berkeley 'wrote his theory of vision to obviate an objection that might be made on the score of 'visible distance,' in order to prove it to be a sensation of mind only suggested by tangibility, &c...' [Shepherd, 1827, p. 69]. As Shepherd pointed out, the view that sense object are complexes of sensations and relations is purposely discounted at the outset by Berkeley. His own argument against materialism, as well as his positive doctrine, is in fact founded on the assumption that sense objects are nothing more than immediately perceived collections of sensations:

This he omitted purposely, in order to have nothing to do with the causes and objects which create sensations, until he came to explain them after his own notions, as necessarily active, and therefore spirit. His method of incomplete definition, and naming only the combined sensible qualities the effects of things, when all men name them as united with the perceptions of the understanding, and the observations of experience, is the reason why his philosophy seems at once plausible, contradictory, and unanswerable [Shepherd, 1827, pp. 68–69].

Given her departures from empiricism, and her rejection of materialism and idealism, Shepherd's epistemology is unlike received accounts. Her emphasis on sensation and experience make a straightforward classification as rationalist unlikely. Where then, are we to place Shepherd's philosophy? John Fearn accused her of presenting a view that was 'half-Berkeleian' and 'half-scholastic'; but such a characterization is not entirely fair. In order to see where Shepherd places herself within the rationalist and empiricist framework, we must look to her appeal to the metaphor of the *camera obscura*. The metaphor tells us something of how, contra Berkeley, she regarded the mind as perceiving changes internally, and yet knowing that these perceptions correspond to changes in external things.

When Shepherd introduced her *camera obscura* metaphor in 1832, she is searching for an image to help make her abstract discussions of epistemology more concrete. Versions of the *camera obscura* device had existed for centuries.

However, recent technological advances in the field of photography and other uses of the metaphor by philosophers set the context for Shepherd's appeal to the metaphor. 5

The metaphor of the *camera obscura* is telling with respect to Shepherd's philosophical views. Shepherd, though more inclined to dwell on the abstract and philosophical aspects of science, invoked the *camera obscura* as a metaphor to explain the relation between processes of the mind, representation, and the external world. According to Shepherd, the outside world is like the world reflected by the mirrors of the *camera obscura*. The mind, partly hidden and partly perceptible, is like the 'dark room' itself; while the images displayed on the surface in the *camera obscura* are like the representations before the mind in conscious perception.

The mind in this scene is as the reflecting mirror in a *camera obscura*, were it imagined to be *consciously* observing its shifting images, knowing them to be changed by the influence of corresponding, though unlike, objects from without; and directing the succession of its changes, by its power of varying the position of the intervening instruments which connect the exterior changing objects with their responding changing representative [Shephard, 1832, p. 702].

Given the history of the discussion surrounding the *camera obscura* metaphor, the fact that Shepherd makes use of the comparison is intriguing. In 1801, Villers had used the metaphor of the *camera obscura* to explain the sense of inference in Kant's transcendental philosophy. Thomas Brown and other empiricists rejected the metaphor, charging that the *camera obscura* would never be able to draw inferences. Like Villers, Shepherd supposes that the example

⁵The full-size camera obscura is literally a dark room into which images from outside are projected. A popular device in the days before photography, the careful arrangement of mirrors and lenses afforded panoramic view of towns. As the mirrors are manipulated to change position, they vary the panorama. The viewing room is left dark to enhance the contrast and brightness of the image under view. Camera obscura devices were popular tourist attractions in the nineteenth century. Edinburgh had an observatory on Calton Hill dating from the early eighteenth century. Thomas Short built his 'Gothic House' to store scientific instruments made by his family. He charged admission to those wishing to see through his telescopes and other instruments. Short died in 1788, but in 1827, a woman of dubious origins claimed to be Maria Theresa Short, Thomas Short's daughter. She returned to Edinburgh to claim his scientific instruments as her inheritance. For many years she ran a 'Popular Observatory' there, eventually moving to the site on Edinburgh's Castlehill where Edinburgh's camera obscura and 'Outlook Tower' remain to his day. [Cf. typed handout from Outlook Tower on Maria Short/ Patrick Geddes and the Outlook Tower. Andrew Johnson and Tony Millar As would be the case today, technological advances were then regarded with great interest as curiosities, but also with an eye to utility. Portraiture, for example, was often accomplished with the help of portable versions of the device. For scientists working to advance the field of chemistry, one goal was to discover a chemical process that could capture the image of the camera obscura on paper. Both Herschel and Brewster contributed materially to advances in chemistry and photography. In addition, rapid technological advances in lens manufacture had had significantly improved the capacity to represent outer scenes in 'dark rooms' or camera obscuras by the 1830s. So, at this point in time, the camera obscura was a device of considerable interest, especially to some of the scientists connected with Shepherd's circle.

succeeds in illustrating how we come to recognize objective elements in cognition. Yet she is evidently influenced by the discussion of transcendentalism and empiricism surrounding the metaphor. Given the benefit of the empiricist critiques that followed the publication of Villers' book, Shepherd attempts to rescue the metaphor from its critics. She does so by supplementing Villers original example with an actual account of how the camera obscura is supposed to acquire objective knowledge. In Shepherd's example, the animate camera detects objectivity through its 'power of varying the position of the intervening instruments which connect the exterior changing objects with their responding changing representative'. Thus Shepherd takes up the transcendentalist's cause, supplementing the purely psychologistic reading of transcendentalism in Villers with a justification of sorts.

Shepherd's use of the camera obscura as a metaphor for the mind has a special epistemological significance. The camera obscura metaphor was introduced by Villers in his Philosophie de Kant for the purpose of explaining Kant's transcendentalism. Shepherd could easily have learned about the metaphor in writings by Villers, Brown, or Drummond. However, regardless of her source, she must have been aware of the discussion and criticism surrounding the metaphor. As Wellek points out in his Kant in England, both Villers' camera obscura example and his reading of Kant were considered to suffer from an excess of psychologism[Wellek, 1931, p.127]. Shepherd nevertheless makes appeal to the metaphor to describe her own view, bringing together the camera obscura, the element of animation, and the various perspectives of the animated, multiplemirrored, camera obscura.

As her use of the camera obscura metaphor makes apparent, Shepherd intends to portray the mind as playing a very active role in knowledge acquisition. The details of Shepherd's view of the mind and its activities in cognition emerge most clearly in her discussion of colour vision. Shepherd says that she agrees with the usual view that colour is a 'sensation in the mind', but also holds that ideas of colour and extension are intimately associated by the mind, and arise according to a mechanism unlike the one describe by the common sense realists. Like Condillac and Berkeley, Shepherd holds that empiricism must fall back on the sense of touch in order to explain extension. She writes that 'I conceive ideas of colour to be from habit immediately associated with those of touch and motion. Contrasting colours, yielding us, therefore, by means of their associations, the ideas of distance and tangible figure' [Shepherd, 1832a, p. 701. Indeed, Shepherd's view of the relation between colour and extension is that 'conscious, coloured extension, is as a picture in the mind, and must be associated there with ideas of position and distance, and direction, in relation to motion.' In understanding, '...the soul perceives the picture in which the coloured atmosphere appears, as well as the objects beyond it'. It then places these elements 'in proportion to its perception of the motion requisite to attain contact with them' by 'referring all the perceived qualities, which are effects, equally to all the unperceived qualities which are their causes; and which are equal in their mutual relations' [Shepherd, 1827, p. 260].

On Shepherd's account, we perceive sensations of sensible qualities, and,

in addition, we perceive sensations of ideas connected with exterior objects. In observing visible figure uniting colour and extension, we can conclude only that primary and secondary qualities 'are conscious exhibited effects; sensations formed by the excitement of unknown causes, on the sentient powers'. Indeed, for Shepherd, 'motion in this respect is also a sensation; distance likewise; every consciousness, every perception, every notice, is mental' [Shepherd, 1827, p. 256]. Thus, ideas such as the idea of visible figure, arise as sensations in the mind. They come to be known as representations of external objects by inference. Such ideas are distinct from other sensations of sensible qualities, and yet mixed with them in our representation of external things:

Now, there are perceptions of sensible qualities; and perceptions of their relations by reasoning, yet both are but species of sensations. The perceptions of sense, neither immediately, nor mediately as signs of conceived qualities, can ever tell us of their positive nature when unfelt, whether they be primary or secondary. The perceptions of reason, will tell us, that there must necessarily be exterior objects, and that these must be as various as the sensations they create [Shepherd, 1827, pp. 110-111].

Shepherd's account then, links the possibility of knowledge of external objects to direct sensible contact with exterior objects and associations between touch and colour vision. Like Berkeley then, Shepherd argues that touch and sight are basic to visual perception. She also holds that tangibility is a distinct sensation, and so must be treated like 'coloured extension', i.e., as an ideal object with a real counterpart. Tangibility, presumably, is what gives rise to ideas of our sensations of the 'physical' or 'material'. Shepherd's view is that we use our own bodies as a point of reference in detecting the position and motions of other bodies. We move around in our environment, as if from the center of a circle towards its circumference, and so discover patterns of motion and colour. Shepherd's view of perception then, is that both colour and patterns are perceived by the mind and considered to reflect a reality exterior to the mind and body. As such, neither colour nor pattern are mere affections of the mind Shepherd, 1827, p. 252. Shepherd is able to maintain this view in part because she holds that sensations of colour and sensations of patterns are distinct types of qualities of which we are conscious. Both exist as mental sensations and are felt as distinct effects or changes upon the various powers of sensation. Moreover, all such particular sensations are distinct from the sensation of general conscious awareness [Shepherd, 1827, pp. 252–254]. In determining representations of what it perceives, the mind distinguish all of these varieties in sensation (i.e., to distinguish general conscious awareness and particular sensations such as patterns and colours and so on) and draws inferences regarding an external reality based on these distinctions.

It is important to note that for Shepherd, the five senses alone cannot provide knowledge of external existence. The sense provide such knowledge only by means of inference [Shepherd, 1827, n. 177–178]. In addition, there are specific limits on knowledge of external objects, Shepherd cautions that on her view,

only 'proportional varieties of external objects may be known' and that the 'real essences of mind and matter are unknown to us' [Shepherd, 1827, pp. 243–244]. How are inferences to external existence performed? According to Shepherd, the conformity of our measurements with patterns repeatedly encountered in sensation leads us to infer, by means of the causal principle, the specific properties of space, time and matter. Hence, Shepherd rests her case for knowledge of external existence on sensation, inference, and the causal principle. Shepherd holds, for example, that 'sensible qualities form the sensible objects; but it is a reasoning arising out of a perception of the relation of these qualities; — of the different positions of colours in relation to motion; — of the knowledge of the place where we are &c. by which external continuous existences are proved...?' [Shepherd, 1827, p. 94].

What Shepherd maintains then, contra Berkeley and other empiricists, is that we discover the various objective components through analysis of our representations. For Shepherd, objective features of exterior things, such as primary qualities, are also discovered through reason. Thus, she denies that the objective components of complex objects that are encountered in their 'intimately mixed' form are inseparable in analysis.⁶

In the end, Shepherd's use of the *camera obscura* metaphor helps us to see how she intends to distinguish her view from her empiricist counterparts — that is, from Locke, Berkeley, the common sense realists, and others. Though Shepherd maintains that we can discover objective qualities such as 'outwardness', her claim is not based on a view of sensation, perception, or representation that falls squarely within the bounds of the available empiricist alternatives. In fact, Shepherd's camera obscura example places her on the side of transcendentalism [Hamilton, 1861, pp. 393–399]. Indeed, when Shepherd uses the camera obscura example to argue against Fearn, she claims that 'the above arguments elicit the reason' for her definition of extension, and concludes that 'there is no inconsistency in extension holding unextended qualities of a higher nature than itself' [Shepherd, 1832a, pp. 702, 707]. Fearn, of course, quite failed to see the transcendentalism in Shepherd's philosophy and her use of the camera obscura metaphor. As a result, he misconstrues her view. So the Dictionary of National Biography's description that Fearn 'was no transcendentalist', is therefore apt. Indeed, Fearn's failure to detect Shepherd's transcendentalism leads him to read her as half-scholastic and half-Berkelean, a peculiarity that he attributes to the influence of her earliest instructor, whom Fearn supposes to have inculcated in Shepherd a commitment to metaphysical dualism. While Fearn is correct in pointing out Shepherd's metaphysical dualism and her affinities to Berkeley, he is wrong in thinking that her argument makes a direct scholastic appeal to ontology to defend real extension. Moreover, in Shepherd's eyes, most direct realists

⁶As she elaborates on her account of mediate representation, it becomes clear that Shepherd intends to part ways with Berkeley. Shepherd invokes a more substantive epistemological analysis of the role of mediate representation in knowledge acquisition than can be found in her empiricist predecessors. Berkeley does not seriously consider such an account of mediate perception; hence his criticisms against Locke's representational realism do not extend to Shepherd's view.

are, philosophically, in no better shape than a Fearn or a Berkeley. For, with defenders of the primary qualities tradition, they are committed to an absurd view of perception.

The clue provided by the camera obscura metaphor has a wider significance for interpreting Shepherd's philosophy and her departure from standard empiricism. Shepherd's account of sensible objects brings together sensible qualities, ideas of causes, and inferential processes in a way that endeavors to justify our claim to knowledge of unperceived exterior objects and their objectively real qualities, both of which derive from a world independent of the subject. The fact that our various sense perceptions converge on a single coherent account of the world is ultimately explained with reference to the marks of objectivity in knowledge and it is the marks of objectivity in sensible ideas that lead us to infer knowledge of 'exterior objects'. But the marks of objectivity arise and are detected independently of the usual empiricist appeal to primary qualities. And although the usual physical mechanisms are presumed to underlie the physical perception of sensible qualities, it is not mechanical action itself, but inference that leads to knowledge of the real properties of objects.

Conclusion

In addition to the recording of social and political circumstances and their connections to Shepherd's philosophical ideas,

In concluding this account of the life and work of Mary Shepherd, some sort of overall assessment of Shepherd's philosophical contribution is appropriate, if only in a preliminary way. It is to this task that we must finally turn our attention.

The most obvious question to ask is whether Shepherd fits into the Scottish school of philosophy. Insofar as the Scottish school is identified with some version of a common sense doctrine, Shepherd is not a member of that school. In fact, one way of understanding her philosophical motivation and work is to see her as carving out a position that is decidedly against common sense. This is not to say, of course, that she rejects all of the tenets of her Scottish predecessors. It is evident that Shepherd develops her empiricism in a way that draws from many of her Scottish predecessors. Another way to think of Shepherd's connection to the Scottish school is to note that the central themes identified with the Scottish school — Hume, empiricism, realism, perception, and representation — are also central to her work [Robinson, 1961, pp. 15–20]. If emphasis on these themes is taken as the main criteria for inclusion, then Shepherd ought in fact to belong to the Scottish school. That said, Shepherd's placement in the Scottish tradition of philosophy can easily be questioned. She stands apart from her Scottish contemporaries in adopting a transcendentalist and a priorist position against Hume. Indeed, what makes Shepherd's contribution to the controversies of her day unique and intriguing is that she does stand apart from her Scottish contemporaries in this way. Hence, it is arguable that Shepherd's metaphysics and epistemology represents a significant departure from the Scottish common sense tradition in philosophy.

It is not, in any case, easy to peg Lady Mary Shepherd or her philosophy. As contemporary John Fearn had thought, her philosophical position might appear to be a union of scholastic philosophy and Berkeleian empiricism. Shepherd herself rejected this appraisal, insisting that her account lays emphasis on the causal relation and of its 'manner of action', and that it is this relation that supplies the true foundation for science, moral philosophy and belief in God. Nonetheless, Fearn's criticism of Shepherd is interesting not only for the light shed on how her view can be misread, but also for the questions it raises regarding the proper interpretation of her philosophy. In missing her transcendentalism, Fearn has

missed the tenor of her arguments against Hume and Berkeley, and the sense in which Shepherd differs from her earlier empiricist contemporaries. As a transcendentalist, Shepherd aims at a sort of compatibilism between empiricism and rationalism. She draws on elements from both approaches, and seems entirely comfortable doing so. Not merely Lockean in her approach, Shepherd's realism turns on her claims that the mind contributes a priori the idea of a causal relation.⁷⁸ If Shepherd's is in any sense completing a Lockean programme, the task is accomplished in way that draws her view closer to Kant's transcendental idealism than to Locke's transcendental realism. All of this leads to questions about what Shepherd could possibly have meant in describing her own theory as a 'modified Berkelean theory'. My own suggestion, of course, has been that we ought to read Shepherd, broadly speaking, as a 'transcendentalist'. However, it is not entirely clear that Shepherd's transcendentalism can or should be tied to Kant. ⁹

In addition to her transcendental leanings, it is also clear that Shepherd wished to endorse a form of realism. She distinguished her view, however, from those of Malebranche, Leibniz, Reid and others. She appears to want to distance herself from appeals to the direct intervention of God, pre-established harmony, immediate intuition, and the primary/secondary quality distinction:

Thus some philosophers make God create all the images at the moment they appear in every mind. [Malebranche] Others conceive there is a pre-established harmony between the qualities of the external object, and our inward perception of it? [Leibniz] One considers the sensations arising from some of the senses to exist outwardly, but not those of others, arising from the rest of the senses. [Reid] Another gives up all outward existence whatever of objects and qualities. [Berkeley] And some suppose that if there be such things, that unless they be like our sensations, they are not worth talking about. [Hume] [Shephard, 1827, p. 46].

As the context of the passage makes clear, Shepherd does not intend to follow any of these thinkers. Whatever form of realism Shepherd wishes to endorse, it is not based on the ideas of these predecessors. In any event, the outline of Shepherd's realism is better revealed through comparison with Kant than through comparison to empiricist counterparts such as Locke.

Unlike Locke and other empiricists, for Shepherd, it is the detection of repeated patterns in sensation that leads to ideas of external causes. But this detection itself is not tantamount to the perception of primary qualities. Rather,

⁷Locke is said to have been unaware that the thesis of transcendental idealism might supply a means of avoiding sceptical idealism. Indeed, he was so far removed from the consequences of his own theory, Reid remarks, that he quite failed to perceive that his own theory implied the impossibility of our having an idea of power.

⁸See [Hamilton, 1863, vol. II], Essay on the Intellectual Powers of Man, 1785.

⁹There are elements of Condillac and Berkeley in Shepherd's account of extension. If Shepherd read Villers, she may have been influenced by his claim that Condillac saw an important role for transcendentalism in addressing the problems of empiricism [Villers, 1801, p. 240].

the detection of patterns in sensible ideas leads to the idea of an external cause, the idea of the causal relation built into representations makes possible inferred knowledge of the specific measurable properties of objects. Shepherd'appeals to touch and the feeling of resistance as part of her attempt to defend the materiality of exterior objects, and to establish a world of material things beyond Berkeley's spirits. However unsatisfactory her defence of materialism may be, it is evidently this materialist commitment that motivates Shepherd's sympathy for Locke. However, Shepherd sees that mere materialism is not adequate to answer Berkeley's sceptical idealism. She strengthens her reply to Berkeley by appeal to an a priori idea of the causal relation. As a result, Shepherd's position does appear to be a form of transcendental idealism.

[Another interesting feature of Shepherd's philosophy is her appeal to systematicity and unity in knowledge. A final, but no less important concern regards her motivation to defend theism and the social order.]

Lady Mary Shepherd's work offers a critical and original response to Hume and Berkeley that deserves the careful consideration of contemporary historians and philosophers. She is, in my estimation, the clearest and the most critically acute of the women philosophers of the modern period, with a distinctive, analytical style of criticism. She focuses her attention on careful definition and on the identification of fallacies in the arguments of her predecessors, and lays out compelling arguments against her opponents. In addition to identifying the conceptual and logical limitations of other philosophical arguments, she seeks to develop an original and plausible account of objective knowledge of the external world. Shepherd's account brings together sensible qualities, ideas of causes, and inferential processes in a way that endeavours to justify our claim to knowledge of unperceived exterior objects and their objectively real qualities, both of which derive from a world independent of the subject. The fact that our various sense perceptions converge on a single coherent account of the world is ultimately explained with reference to the marks of objectivity in knowledge and it is the marks of objectivity in sensible ideas that lead us to infer knowledge of 'exterior objects'.

The variety of elements and complexity in Shepherd's philosophy make it difficult to classify her philosophical contribution. However, we can draw at least a couple of conclusions at this stage. First, that Shepherd's position falls uneasily between both empiricism and rationalism and idealism and realism. Secondly, that her philosophical contribution represents an original and interesting effort to engage contemporary philosophical debates. It is also apparent that Shepherd's social context played an important role in motivating her work. She appears to take quite seriously Brown's charge that causation is merely phenomenal for Berkeley and Kant, and her principal aim is to show that an adequate account of causality can be effectively used to rebut both Hume and Berkeley. At a personal level, Shepherd was inspired by the case of Mr. Leslie, the Edinburgh controversy that led her to write her first book. As Blakey notes

¹⁰Contra Berkeley, the external causes of sensation can't be mere spirits, Shepherd reasons, because this would require us to adopt a view of the action of spirits and of God, which, according to Shepherd, is atheistic.

in his A History of the Philosophy of Mind, the view of causation espoused by Hume and Brown 'appeared to Lady Mary Shepherd to lead by an inevitable consequence to downright Atheism' [Blakey, 1850, p. 42]. Thus it was the Scottish common sense philosophers who drew Shepherd into the philosophical debate in the first place, and to the Scottish philosophers that Shepherd addressed her philosophical contribution. For Shepherd and others committed to academic freedom and university reform, this philosophical contribution developed over time in tandem with other lifelong efforts to see changes introduced to the educational system. In the end, the sciences given prominence in the universities, and academic freedom came to be the prized and protected value of proponents of an enlightened and democratic society. But, wherever the quest for philosophical truth took Shepherd in the end, the problems that she set out to resolve, and the terms through which she understood those philosophical problems, are unequivocally located in her Edinburgh roots.

One final note. In 1867, when Edinburgh University finally responded to the Edinburgh's Association for the University Education of Women's request to establish a course of study for women, Lady Mary Shepherd was not forgotten. ¹¹ In his inaugural lecture to his 'Course on Mental Philosophy', Archibald Campbell Fraser, quite appropriately, tipped his hat to Mary Shepherd, Scotland's first female philosopher:

Lady Mary Shepherd, some forty years ago, in her Essay on Cause and Effect, and Essays on the Perception of an External Universe, discussed with ingenuity and acuteness some of the profoundest questions to which the human mind can be applied [Fraser, 1868].

¹¹Note that The Edinburgh Ladies Educational Association changed its name to the Association for the University Education of Women. Initially, lectures to the female candidates were given separately by willing professors during the winter session, and female students were awarded 'certificates in Arts'. After another twenty years, and much controversy and even some legal action, Parliament became involved, and finally authorized universities to admit women to medical and other degrees [Horn, 1967, pp. 191–192].

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