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### “Molyneux’s Problem in the Scottish Enlightenment”

The Scottish science of mind “progressed” in different ways through the works of the Aberdonian philosopher George Dalgarno (1616-1687), Thomas Reid (1710-1796) among members of the Aberdeen Philosophical Society known as the Wise Club and the professor of moral philosophy at Edinburgh University Dugald Stewart (1753-1828). Although Dalgarno developed his view of natural language while living in Oxford before the ideological origins of the Scottish Enlightenment, which was rooted in the 1707 Anglo-Scottish Treaty of Union, members of the Wise Club explicitly appealed to the “universal language” of Dalgarno’s *Ars Signorum* (1661) in their development of common sense philosophy. As an intellectual disciple of Reid, Stewart associated the works of Dalgarno with the Scottish “school” of philosophy. In part two of his preliminary *Dissertation* (1821) to the *Encyclopædia Britannica*, Stewart wrote:

Of the Scottish authors, who turned their attention to metaphysical studies, prior to the union of the two Kingdoms, I know of none so eminent as George Dalgarno of Aberdeen, author of two works, both of them strongly marked with sound philosophy, as well as with original genius...The fate of Dalgarno will be hard indeed, if, in addition to the unjust neglect he experienced from his contemporaries, the proofs he has left of his philosophical talents shall be suffered to sink into total oblivion.<sup>1</sup>

The ways in which Dalgarno anticipated key elements of a famous thought-experiment that the Irish natural philosopher William Molyneux (1656-1698) proposed for the consideration of John Locke partly explains why the Wise Club and Stewart valued his works. In correspondence with Locke on 2 March 1693, Molyneux wrote:

Suppose a man born blind, and now adult, and taught by his touch to distinguish between a Cube and a Sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt one and t'other, which is the Cube, which the Sphere. Suppose then the Cube and the Sphere placed on a Table, and the Blind Man to be made to see. Quaere, Whether by his sight, before he touch'd them, he could now distinguish, and tell, which is the Globe, which the Cube?<sup>2</sup>

Locke agreed with Molyneux's belief that the accurate identification of objects was "beholden" to the experience of exercising external sense perceptions and, in turn, a person born blind had not developed the association of simple and complex ideas from the faculty of sight.<sup>3</sup> That thought-experiment strengthened Locke's rejection of innate ideas and his *tabula rasa* portrayal "of perception" in Book 2, Chapter 9 of *An Essay Concerning Human Understanding* (2<sup>nd</sup> ed., 1694). Molyneux's Problem had an equally significant role in the Scottish science of mind as an exemplar of eighteenth-century British empiricism and epistemology.

This article sheds new light on the different ways in which Dalgarno, the Wise Club and Stewart addressed Molyneux's Problem in unique programs to cultivate dormant or restored external sense perceptions. The first of three sections illustrate the philosophical underpinnings of Dalgarno's "hand-language" in *Didascalocophus or the Deaf and Dumb Man's Tutor* (1680) as a universal method of interpreting and communicating "arbitrary signs" in the late seventeenth-century natural language milieu. The following section turns to the role of Molyneux's Problem in unpublished discourses of the Wise Club between 1758 and 1762 with a particular focus on the development of Reid's principles of common sense. The final section explores the ways in which Stewart addressed Molyneux's Problem as a source to refine his own system of moral education in *Some Account of a Boy born Blind and Deaf*, which he read before the Royal Society of Edinburgh on 3 February 1812 and later published in the seventh volume of *Transactions of the Royal Society of Edinburgh* in 1815.

Experimental programs of educating the blind and deaf in the thought of Dalgarno, the Wise Club and Stewart sought to universally cultivate intellectual powers of the human constitution as part of a broader Enlightenment project. This comparative study of Scottish engagement with Molyneux's Problem reveals degrees of continuity and change in the science of mind through the long eighteenth century and the influence that associational life had on Scottish Enlightenment thought.

### **Anticipating Molyneux's Problem in the Art of Universal Language**

Little is known about George Dalgarno's life in Aberdeen before he moved to Oxford during the mid-1650s. In *Athenæ Oxonienses*, Anthony Wood (1632-1695) briefly mentioned that Dalgarno was born (c.1616 or 1626) in Old Aberdeen and "bred in the university [Marischal College] at New Aberdeen."<sup>4</sup> Nearly three decades after the unification of King's and Marischal Colleges in 1860, the University of Aberdeen librarian Peter Anderson (1852-1926) alleged that the author of *Ars Signorum* (1661) "Georgius Dalgardno" matriculated at Marischal in 1631, albeit another student by the name of "Georgius Dalgarno" matriculated in 1627.<sup>5</sup> Neither Dalgardno nor Dalgarno graduated with a degree, which was common for most of their classmates at that time, before entering public life.<sup>6</sup> Regardless of the questionable dates of his birth and admission to college, the curriculum at Marischal offers some insight into the development of Dalgarno's philosophical engagement with what would later be known as Molyneux's Problem.

Marischal College was founded in 1593 as a post-Reformation "civic university" that adopted the Dutch professorial system for educating Aberdonian sons of noble birth and a relatively few number of bursary recipients. That method of instruction in the Scholastic curriculum under the *Statuta* and the *Leges* diverged from the regenting system at King's College, Aberdeen, which was founded in 1495. Whereas regents at King's taught different

branches of knowledge to a group of students across four years, Principal Patrick Dun and four masters at Marischal condensed the same curriculum in an intensive two-year Master of Arts program.<sup>7</sup> In four separate courses, professors taught Greek and Latin in relation to eloquence and rhetoric, Aristotelian logic, natural philosophy and mathematics during Dun's administration of Marischal between 1621 and 1649. No surviving evidence indicates which, if any, of the four courses Dalgarno completed at Marischal. And yet, he certainly attended first year lectures on Greek, Latin and logic. Lectures on Aristotelian syllogistic logic as well as ethics did not give way to the inductive philosophy of Francis Bacon's *Novum Organum* (1620) when Dalgarno matriculated. In other words, his later use of the Baconian method did not originate at Marischal. But Marischal's emphasis on teaching ancient languages prepared Dalgarno's later engagement with philology.

Evidence of Dalgarno's exact whereabouts and activities during the English Civil War has yet to surface before he became the headmaster of a grammar school in the Oxford parishes of St. Michael and St. Magdalene in 1657.<sup>8</sup> At that time, the natural language movement led by the Warden of Wadham College John Wilkins (1614-1672) in the Oxford Philosophical Club, which was a precursor of the Royal Society of London established in 1660, sought to complete Bacon's *Instauratio magna*.<sup>9</sup> Dalgarno's development of a new writing scheme for shorthand or stenography attracted the attention of the German polymath Samuel Hartlib (1600-1662), who introduced that system to men of letters in London and Oxford. Hartlib claimed that Dalgarno's shorthand could reduce the length of the whole Bible to nine or ten sheets.<sup>10</sup> Access to Hartlib's network resulted in Dalgarno's collaboration with members of the Oxford Philosophical Club, which certainly involved an engagement with the Baconian method while he prepared *Ars Signorum* for the press in 1661. His "art of signs" divided ideas into seventeen classes under the Latin alphabet with an additional two Greek characters. In doing so, he sought "to remedie the confusion of languages, by giving a much

more easie medium of communication than any yet known, but also to cure even Philosophy itself of the disease of Sophisms and Logomachies; as also to provide her with more wieldy and manageable instruments of operation, for defining, dividing, demonstrating...”<sup>11</sup> His lexicon *latino-philosophicum* and *grammatico-philosophicum* reconstructed the conjectural process through which Adamic language originally took shape as the natural language of man. Following Bacon’s pragmatic art of communicating thought, Dalgarno’s table of universal characters demonstrated how parts of speech were reducible to nouns as perceived objects of the mind. That lexicon could be taught in the space of two weeks as an efficient way to enrich a better understanding of philosophical principles and inductive logic.

The favourable reception of Wilkins’s *An Essay towards a Real Character, and a Philosophical Language* (1668) eclipsed Dalgarno’s original contributions to the field of natural language.<sup>12</sup> Dugald Stewart later argued that

The obscurity in which Dalgarno lived, and the complete oblivion into which his name has fallen, are not a little wonderful, when we consider that he mentions among the number of his friends Dr. Seth Ward, Bishop of Sarum; Dr. John Wilkins, Bishop of Chester; and Dr. John Wallis, Professor of Astronomy at Oxford. It is still more wonderful, that no notice of him is taken in the works either of Wilkins or of Wallis, both of whom must have derived some very important aids from his speculations.<sup>13</sup>

The contemporary dismissal of *Ars Signorum* did not dissuade Dalgarno from publishing its sequel in 1680. While the “art of signs” outlined the characters of a universal language, *Didascalocophus* introduced a new form of ‘hand-language’ for early education with the lexicon *latino-philosophicum* and *grammatico-philosophicum* in mind.

The treatment of external sense perceptions and memory in Dalgarno’s *Deaf and Blind Man’s Tutor* (1680) closely resembled prominent beliefs in Lockean epistemology before the 1689 publication of *An Essay Concerning Human Understanding* as well as the mid-

eighteenth century development of Scottish common sense philosophy in the Wise Club. That resemblance was best shown in relation to Molyneux's Problem. Dalgarno argued that "the soul of man come into the world, *Tabula Rasa*, yet is it withal, *Tabula Cerata*, capable, thro study and discipline, of having many fair and goodly images stamp't upon it."<sup>14</sup> The cognitive power of interpreting supernatural, natural and artificial signs depended primarily on information derived from the exercise of divinely inspired external sense perceptions. As an anatomist of the mind, Dalgarno ranked the external senses of sight and hearing above those of taste, smell and touch due to their superior utility in the interpretation of perceived objects. Written characters and the spoken sound of those characters equally communicated "arbitrary signs" of perceived objects. But a blind man had significant advantages in learning over the deaf due to the circumstances of his education "for every body he converses with is a tutor, and every word he hears is a lecture to him, by which he either learns what he knew not, or confirms what he had."<sup>15</sup> Dalgarno's innovative "hand-language" sought to tip the scale of that imbalance between the early education of blind and deaf children, "taking it for granted that deaf people are equal, in faculties of apprehension and memory, not only to the blind, but even those that have all their senses."<sup>16</sup>

Systematic attempts to train the motion of the tongue and improve the enunciation of speech among the deaf were popularized by the Spanish physician Franciscus Vallesius's *Reduction of Letters, and Art of Instructing the Dumb* (1620) and through the later 1698 publication of the Oxford professor of geometry John Wallis's (1616-1703) letter to Thomas Beverly in the *Transactions of the Royal Society of London*. Dalgarno did not consider the mechanics of speech, rather he sought to teach the deaf to read and write by way of a "finger alphabet" from an early age. In relation to Molyneux's Problem, Dalgarno argued "that the soul can exert her powers by the ministry of any of the senses; and therefore when she is deprived of her principal secretaries, the eye and the ear, then she must be contented with the

service of her lacqueys and scullions the other senses.”<sup>17</sup> He portrayed the deaf man’s faculties of mind as a “clean paper” that could more easily adopt and accurately remember impressions of “arbitrary signs” than agents who possessed the faculty of hearing. Digesting the associational meaning of “arbitrary signs” in silence without the obstruction of competing information allegedly assisted a deaf person’s education. But Dalgarno recognised that writing utensils were not always available. With that in mind, he created a letter-glove, which displayed characters of the alphabet on the fingers and palm. The glove served as a primer for agents to memorise the arrangement of letters on the hand. In practice, agents pointed to the characters on the glove as a spelling exercise of communication. The philosophical underpinnings of Dalgarno’s lexicon outlined in *Ars Signorum* enabled agents to eventually communicate complex metaphysical concepts in few words. That system of education required diligence and patience from both the tutor and pupil, who were matched by their abilities. Dalgarno believed “that there is none so fit to teach a slow scholar as a slow master; that is, one dunce to teach another.”<sup>18</sup>

The intended use of Dalgarno’s “hand-language” was not confined to the deaf. His “worthy and noble experiment” provided a practical vehicle for the universal improvement of civil society. Dalgarno sought to show that “these impotents [blind and deaf] may not only be instructed in the common notions of language, which is the bond of human society, but also from this foundation may be raised the superstructure of all other arts, which are either for use or ornament to human nature.”<sup>19</sup> He advertised that the ability to communicate in silence also protected the secrecy of information. But his overarching objective to universally enhance early education by teaching children to read and write with their fingers offered a unique solution to Molyneux’s Problem before it was conceived in correspondence with Locke. While early eighteenth-century British empiricists, such as Bishop George Berkeley’s (1685-1753) *An Essay towards a New Theory of Vision* (1709), neglected Dalgarno’s works in their

response to Molyneux's Problem, members of the Aberdeen Philosophical Society recognized the value of Dalgarno's treatment of external sense perceptions in the Scottish science of mind.

### **Molyneux's Problem in the Wise Club**

The Aberdeen Enlightenment took shape in the Wise Club slightly over a century after Dalgarno left Aberdeen. Founded in 1758 to discuss philosophical subjects in both the natural and moral worlds, the Wise Club boasted a membership drawn from the professional elite of Aberdeen and, in particular, the faculty of King's and Marischal College. Members included the principal of Marischal George Campbell (1719-1796), regent of King's Thomas Reid (1710-1796), professor of divinity at Marischal Alexander Gerard (1728-1795), regent of King's Thomas Gordon (1714-1797) and professor of moral philosophy at Marischal James Beattie (1735-1803). Fourteen of the fifteen members of the Aberdeen Philosophical Society were alumni of one or both colleges after the 1707 Anglo-Scottish Treaty of Union.<sup>20</sup>

Following the failed Jacobite Rising of 1715, Argathelian and Squadrone Scottish politicians gained control of the 1716 visitation commission and proceeded "to pack the northern colleges with their protégés."<sup>21</sup> They oversaw the appointment of Thomas Blackwell (1701-1757) as principal of Marischal and assembled a new faculty beginning with the election of George Turnbull (1698-1748) in 1721. Turnbull was the first Scot to apply the inductive method to moral philosophy in *De scientiae naturalis cum philosophia morali conjunctione* (1723).<sup>22</sup> "Since the real usefulness of any Science in human life is to be measured by its relation to Moral Philosophy (which has rightly been called by Wise Men the Guide and Parent of Life), we must now briefly investigate the connection that Natural Science has with it," according to Turnbull.<sup>23</sup> That scientific approach to Scottish moral philosophy informed Turnbull's lectures at Marischal from 1721 to 1727, which Wise Club members Thomas Reid and John Stewart (1708-1766) had attended.<sup>24</sup> The curriculum reforms

of 1753 along with the faculty appointments of Reid and John Gregory (1724-1773) at King's College matched Marischal's efforts to meet the demand for "polite learning by a Hanoverian-Whig-Presbyterian establishment."<sup>25</sup>

The reformed curriculum at Aberdeen colleges emphasized the cultivation of natural knowledge in different branches of knowledge.<sup>26</sup> The professor of divinity Alexander Gerard's *Plan of Education* at Marischal published in 1755 reflected that value of experimental philosophy. He argued that "genuine Logic may with greater propriety and success be taught as a critical review of the sciences, than as an introduction to them."<sup>27</sup> With a similar view of "genuine Logic" taught at King's, faculty members from both colleges collaborated in the Aberdeen Philosophical Society as a forum in which they shaped the distinctive characteristics of Aberdeen Enlightenment intellectual culture. They approved seventeen rules that governed their meetings, which alternated between the Red Lion Inn next to King's College and the Lemon Tree Tavern near Marischal College. The final rule stipulated that

The Subject of the Discourses and Questions shall be Philosophical, all Grammatical Historical and Philological Discussions being conceived to be foreign to the Design of this Society. And Philosophical Matters are understood to comprehend, Every Principle of Science which may be deduced by Just and Lawful Induction from the Phenomena wither of the human mind or of the material World.<sup>28</sup>

In spite of that rule, members, such as George Campbell (1719-1796), Thomas Gordon (1714-1797) and James Dunbar (1742-1798), frequently examined scientific principles of language and rhetoric in relation to philosophical history, grammar and philology.

Campbell, who was appointed principal of Marischal in 1759, informed the concerted measure of eloquent discourse in the Club on 8 March 1758 with a paper concerning "the Nature of Eloquence, its various Species & their Respective Ends." He defined eloquence as

an art by which discourse is adapted to its proper end. Eloquent discourse attempted to enlighten the understanding, to please the imagination, to move the passions or influence the will. The ontological ends of “colloquial and serious species” of eloquence, for Campbell, involved the affect they had on the operations of the mind through the particular exercise of wit, humour and ridicule.<sup>29</sup> Campbell later expanded that initial discourse in an examination of “the relation which eloquence bears to logic” on 24 January 1759, which he continued in a third discourse on 10 June 1760. “In contemplating a human creature,” he argued that “the most natural division of the subject is the common one, into soul & body, or into the living principle of perception & of action & that set of material organs by which the other receives information from without & is enabled to exert its powers, both for its own utility & that of the species.”<sup>30</sup> The operations of external sense perceptions in that division of the human constitution drew heavily from “moral evidence” in inductive logic. Whereas logic concerned the evincing of truth, Campbell considered the ways in which eloquent discourse involved both the speaker and the hearer in regards to conveying and receiving truth supported by “moral evidence.”

Following Campbell’s notion of eloquent discourse, Reid considered the “difficulty of a just philosophy of the human mind; General prejudices against David Hume’s system of the mind; & some observations on the perception we have by sight” on 14 June 1758. In his *Treatise of Human Nature* (1739-40), “Scotland’s Great Infidel” David Hume (1711-76) sought to revolutionize the science of mind through the use of the experimental method of reasoning.<sup>31</sup> Hume recommended that investigations in the “Science of Man” should engage in the “cautious observation of human life,” and attend to evidence “in the common course of the world [... from] men’s behaviour in company, in affairs, and in their pleasures.”<sup>32</sup> In an appeal to Locke’s epistemology, he argued that “impressions” of observed objects and human behaviour created subjective “ideas” about their properties.<sup>33</sup> The subjectivity of

“impressions” led Hume to deny the existence of objective moral judgments associated with “realism” and to propose that neither reasoning nor experience provided conclusive evidence of a supreme design. As an empiricist, Hume acknowledged the existence of sequential conjunctions of causes and effects in nature while rejecting the idea that efficient causes could be traced from their perceived effects or through *a priori* reasoning.<sup>34</sup> The Edinburgh jurist and philosopher Henry Home, Lord Kames (1696-1782) read this “doctrine to be a violent paradox [...which] contradicts our natural feelings, and wages war with the common sense of mankind.”<sup>35</sup> While Home’s theory of “final causes” in *Essays on the Principles of Morality and Natural Religion* published anonymously in 1751 offered a religiously unorthodox alternative to Hume’s mitigated scepticism, Reid and members of the Wise Club gradually conceived a new foundation for the science of mind in their common sense philosophy.<sup>36</sup> On 18 March 1763, Reid wrote to Hume

Your Friendly Adversaries Drs Campbel & Gerard as well as Dr Gregory return their Compliments to you respectively. A little Philosophical Society here of which all the three are members, is much indebted to you for its Entertainment [...] If you write no more in morals politicks or metaphysicks [sic], I am afraid we shall be at a loss for Subjects.<sup>37</sup>

Hume’s scepticism alerted the Wise Club to the dangers of the so-called Ideal Theory also shown in selective works by Locke, Berkeley, René Descartes (1596-1650) and Nicholas Malebranche (1638-1715).<sup>38</sup> Wise Club members associated the Ideal Theory with modern philosophical scepticism from the ways in which it undermined commonly held beliefs. On the science of the human mind, Reid informed Hume that, “I have learned more from your writings in this kind than from all others put together.”<sup>39</sup> He shared Hume’s criticisms of Locke’s ambiguous treatment of ideas as a placeholder for all contents of the mind.<sup>40</sup> And yet, Reid was alarmed that rendering knowledge of the world wholly dependent on psychologically intermediate

impressions, which led to ideas, made Hume's system indefensible against philosophical scepticism.<sup>41</sup> Writing in 1764, Reid recalled that when he was initially confronted with Hume's brand of scepticism in the 1740s, Hume's "reasoning appeared to me to be just: there was therefore a necessity to call in question the principles upon which it was founded, or to admit the conclusion."<sup>42</sup>

As an ordained Presbyterian minister, Reid began developing *An Inquiry into the Human Mind on the Principles of Common Sense* (1764) within his 1758 discourse of the Wise Club as a religiously orthodox alternative to the Ideal Theory. He believed that to "discover the simple & original principles of our constitution [...required] a system of the mind, i.e. an enumeration of the original perceptions, & a clear explanation from them of the phenomena of human nature."<sup>43</sup> External sense perceptions, for Reid, were the "simplest & the most distinct operations of the mind."<sup>44</sup> His discourse focused on the perception of colour, visible figure and visible extension as intellectual powers of sight. In doing so, Reid reworked Molyneux's Problem in an innovative way. He referenced Locke's observation "that if a man had never seen any one distinct colour he could never by any effort of his mind conceive an idea of it, though he was well acquainted with all the rest."<sup>45</sup> But Locke and Molyneux did not consider how the perception of compounded or shaded primary colors might shed new light on the operations of sight. Reid revised Molyneux's thought-experiment with a focus on differentiating the colors between the cube and globe. He argued that an agent, who was well acquainted with primary colors, could never imagine that their combination would produce white without previous experience of that color combination. While Hume and Berkeley believed that color was a condition of visible space, Reid observed that agents "have a distinct conception of visible extension without colour."<sup>46</sup>

Reid's treatment of depth perception and the optics of visible figures drew heavily from the report of Her Majesty's surgeon William Cheselden (1688-1752), who transformed the theoretical nature of Molyneux's question in 1728 when he surgically restored the sight of a

thirteen-year-old boy.<sup>47</sup> Cheselden's account that his patient did not see double images after a surgical procedure repaired one blind eye to function in tandem with the other supported the earlier theories of William Briggs (1642-1704) and Sir Isaac Newton (1642-1726). In alignment with those works, Reid concluded that "it seems we must resolve single & double vision at last, into an unaccountable consent or harmony established in our constitution betwixt the corresponding parts of our eyes, by which the objects painted on those corresponding points are seen always in the same place, & so give one perception."<sup>48</sup> He applied that theory of depth perception to a different spin on Molyneux's Problem by considering the ability of an agent to learn with only the external sense of sight. Dalgarno alluded to a similar thought-experiment concerning the deprivation of additional external senses in his conjectural scenario of a deaf servant to a blind master. But that experiment centred on the ways in which the blind and deaf might be able to communicate with each other. With a different purpose in mind, Reid's thought-experiment sought to illustrate the first principles of sight. He argued that an agent with only the faculty of sight could form geometrical conclusions by discerning the visible relations of greater, less or equal combined with the use of reason. Revealing the intricacies of external senses in relation to Molyneux's problem strengthened Reid's inquiry into principles of common sense, which eventually underpinned a new system in the Scottish tradition of teaching metaphysics as moral philosophy.

Like Reid, Thomas Gordon's discourse on the inductive philosophy of language and grammar, which he read before the Wise Club on 31 March 1761, followed the "noble map of science delineated by Lord Bacon."<sup>49</sup> His initial three discourses on memory in the formation of characters paved the way for his philosophy of language, which mapped onto the sequential treatment of memory and language in the first part of Bacon's *Novum Organum* (1620). Gordon reconciled his fourth discourse with the Wise Club's seventeenth rule by emphasizing that his treatment of "language & grammar are strictly & properly the objects of science & philosophy."<sup>50</sup>

He “considered language as a branch of the...ars signorum which enables one man to communicate his thoughts to another.”<sup>51</sup> In doing so, Gordon argued that the natural development of language reflected the historical “progress” of society before the publication of Adam Smith’s *Considerations concerning the First Formation of Languages* in the appendix of *Theory of Moral Sentiments* (3<sup>rd</sup> ed., 1767).<sup>52</sup> That early example of stadial theory, which Dugald Stewart later coined as “Theoretical or Conjectural History” in his life of Adam Smith, emphasized the exercise of external sense perceptions in progressive stages of human civilization.<sup>53</sup> “The associating powers & those of memory chiefly perform this work; & as these faculties are observed to be in greatest vigour during the period of early youth this is also found to be the proper season for acquiring languages,” according to Gordon.<sup>54</sup> In the development and acquisition of languages, he distinguished the difference between the “natural signs” of looks, gestures, and the tone of speech from “arbitrary signs” concerning perceived objects or notions of those objects. “When we consider the variety of signs,” Gordon observed “that a system of them may be contrived from any set of objects pertaining to either sense, provided they are numerous enough to admit of a suitable variety & are within the reach of human power so as we can at pleasure produce proper changes & modifications of them.”<sup>55</sup> Common sense philosophy provided that systematic way to explain the development of language in the science of mind. For Gordon, the science of mind should show that in “common life we employ multitudes of signs any man soon comprehended the meaning of” in natural language.<sup>56</sup> He believed “Dalgarno’s small book [*Ars Signorum*] is rather a prodromus in order to lay the principles & foundation of this art before the learned,” which Dugald Stewart built upon in a reformed version of common sense philosophy during the late Scottish Enlightenment.<sup>57</sup>

### **Molyneux’s Problem in the late Scottish Enlightenment**

Thomas Reid succeeded Adam Smith as the professor of moral philosophy at Glasgow University in 1764 before the Wise Club disbanded in 1773, which followed a series of failed attempts to unite King's and Marischal. The general adoption of common sense philosophy among the Moderate *literati* of Edinburgh influenced Dugald Stewart's decision to attend Reid's lectures at Glasgow after graduating from Edinburgh University in 1771. "In the inquiry into the human mind," Reid lectured at Glasgow that "we have considered at considerable length the external senses, the study of which is very necessary, both because they are a very considerable part of our constitution, and because they serve to illustrate the moral senses [which] not many philosophers think analogous to them."<sup>58</sup> He believed that consciousness involved introspective reflection and remembrance of past operations of the mind. While objects of the mind were often different from their operations, universal beliefs concerning perceived objects should be "assented to as true in every age by all men, learned or unlearned."<sup>59</sup> In other words, everyone should rely upon the testimony of consciousness and "moral evidence" in support of common sense "realism".

Having "had the good fortune, during a considerable part of winter 1772, to be one of his pupils," Stewart remarked that Reid was not a natural teacher and his course of lectures adhered to institutional conventions at Glasgow.<sup>60</sup> The "simplicity and perspicuity" of Reid's style of reading lecture notes did not include "the warmth of extempore discourse."<sup>61</sup> "In his elocution and mode of instruction," Stewart later admitted "there was nothing peculiarly attractive."<sup>62</sup> Stewart's period of study with Reid was cut short due to the declining health of his father, Matthew Stewart (1717-85), who requested that his nineteen-year-old son deliver his course of lectures on mathematics at Edinburgh University. As the acting professor of mathematics, Stewart's correspondence with Reid in the years that followed offers some insight into his early reception of common sense philosophy. In 1774, Stewart wrote that "I was led to object to your use of the word...*suggest* to express the communication of knowledge to the mind by means of

something which we are not conscious.”<sup>63</sup> Reid responded that he treated a *suggestion* as an inadvertent sign. Perhaps being partially color-blind factored in Stewart’s particular questions regarding Reid’s account of the external sense of sight. Nevertheless, Stewart argued that “it appears to me to be evident, that our perceptions of colour and figure are not only received by the same organ of sense, but that the varieties in our perceptions of colour are the *means* of our perception of visible figure.”<sup>64</sup> As previously shown, that argument challenged Reid’s position on the subject. The claim that he did “not fully comprehend” Reid’s *Inquiry* disguised an early period in which Stewart began to question Reid’s treatment of Molyneux’s Problem.

Stewart’s “respect and affection” for Reid as “the only one who has perceived [the science of mind] clearly” in the “Scotch school” did not imply that he strictly followed Reid’s version of common sense philosophy.<sup>65</sup> They diverged on several key subjects; there are, for example, remarkable differences in their treatment of attention, conception, imagination and the association of ideas as intellectual powers of the mind. Stewart claimed that Reid’s use of the term “principles of common sense” to describe self-evident beliefs misled critics, such as the English philosopher Joseph Priestley (1733-1804), about the sophisticated nature of his alternative to Hume’s mitigated scepticism and the Ideal Theory more broadly. Stewart later taught Edinburgh students as the professor of moral philosophy that

Drs Reid, Beattie, and Oswald, in their answers to Mr Hume’s attack upon this kind of evidence, employ very erroneously the expression Common Sense (which is commonly used to express a certain prudence or sagacity possessed by uneducated men) to signify an essential law of our constitution; And have thereby [misled] their opponents, particularly Dr. Priestley of an allegation against them which they by no means deserve.<sup>66</sup>

His preferred use of the term “fundamental laws of human belief” or the “principles of the human constitution” could be interpreted as an attempt to avoid such criticisms at a time when

the British government censured ideas that might inflame radicalism among the lower ranks of society. Stewart certainly wanted to draw a firm distinction between his “principles of the human constitution” and unrestrained passions associated with the “vulgar” mob.<sup>67</sup> For Stewart, Reid had not succeeded in that objective.

Reid understood that Stewart was not an uncritical disciple and was critical in his turn. In a partial 1791 review of Stewart’s unpublished discourses, Reid approved of Stewart’s inductive approach to intellectual and active pursuits of the mind, such as exercising ‘polite’ mediums (poetry, painting, theatre) of taste.<sup>68</sup> Stewart did not, however, account for the perceived duration of time in treating “attention”, according to Reid. A close reading of Reid’s discourse on the “will” that he read before the Glasgow Literary Society in 1777 and later published in *Essays on the Active Powers of Man* (1788) was recommended to correct Stewart’s alleged confusion of the subject.<sup>69</sup> Above all, Reid objected to “the Hypothesis of hidden trains of thinking of which we have no Remembrance next Moment, upon the most attentive Reflection.”<sup>70</sup> He denied that the association of ideas could be improved through habit while emphasizing that Stewart should “guard against Hypotheses.”<sup>71</sup> Apart from reclassifying the philosophical “system” of common sense and accounting for the duration of time in treating “attention”, Stewart did not apply Reid’s recommended changes in revising *Elements of the Philosophy of the Human Mind* for publication in the spring of 1792.

Stewart’s *Elements* (1792) introduced his educational doctrine as a new system of moral education, which reformed Scottish common sense philosophy. That philosophical system first took shape in Stewart’s course of lectures on moral philosophy during the academic session of 1789-90. Stewart taught that what “should be meant by common sense ought always to be a law of our natures, nor is it enough to say that any particular thing is generally understood by mankind & that this should give it the appellation of common sense, because our prejudices are...generally understood & many of them are wrong.”<sup>72</sup> He argued

that Reid went too far in ridiculing associative principles and the belief that all hypotheses led to philosophical scepticism. Stewart taught the association of ideas “only where there could be no danger of misapprehension.”<sup>73</sup> Writing as a former student, Sir Walter Scott (1771-1832) later commented that the association of ideas was “the universal pick-lock of all metaphysical difficulties...when I studied moral philosophy” during the winter of 1790.<sup>74</sup>

Stewart later refined his educational doctrine by engaging with Molyneux’s Problem. In doing so, the practical application of Dalgarno’s philosophical language in *The Deaf and Dumb Man’s Tutor* (1680) resonated with Stewart’s particular interests in early education and the broader Scottish Enlightenment experiments on the cultivation of natural knowledge. Stewart sought to revolutionize the natural history of the human mind through the experimental education of James Mitchell (1795-1869), who was born blind and deaf in northern Scotland. After receiving a report from a fellow of the Royal Society of Edinburgh, James Wardrop (1782-1869), about an attempt to surgically correct Mitchell’s cataracts in 1802, Stewart taught in his course of lectures on moral philosophy that “it is a curious fact that those who are born blind may be made to understand almost everything which one endowed with the sense of sight can.”<sup>75</sup> In a separate lecture during the academic session of 1808-09, he referenced a form of “writing & speaking on the fingers” innovated by the ‘Father of the Deaf’ Abbé Charles-Michel de L’Épée (1712-89) as an example of the “pitch the education of deaf people can be carried.”<sup>76</sup> He believed that the “progress which has of late been made in teaching the deaf and dumb in the various arts & sciences does equal honour to the benevolence and Ingenuity of Modern times” since the publication of Dalgarno’s work.<sup>77</sup> But the method in which to instruct a student who exclusively experienced the world through the external sense perceptions of taste, smell and touch from birth presented a unique challenge to Stewart’s system of moral education. In *Philosophical Essays* published in 1810, which followed his retirement from lecturing at Edinburgh University, Stewart argued:

What is the whole business of Education, when systematically and judiciously conducted, but a practical application of rules deduced from our own experiments, or from those of others, on the most effectual modes of developing and of cultivating the intellectual faculties and the moral principles? I lay but little stress, comparatively, on those rare, though inestimable opportunities of gratifying an experimental curiosity, which are presented by the Blind and the Deaf, when they are qualified to give a distinct account of their peculiar perceptions, feelings, and habits of thought...<sup>78</sup>

While he considered prominent responses to Molyneux's Problem in George Berkeley's *A New Theory of Vision* (1709) and Denis Diderot's (1713-84) *Letter on the Blind* (1749), which emphasised the importance of experience, Stewart sought to improve on the "Course of Instruction for the Deaf and Dumb" by Roch-Ambroise Cucurron Sicard's (1742-1822), with new rules to cultivate dormant faculties of mind. In doing so, he recommended the application of his own educational doctrine as a practical source

...for remedying many of the accidents to which his health and his life are liable; for recovering, in some cases, those active powers which disease has destroyed or impaired; and, in others, by giving sight to the blind, and hearing to the deaf, for awakening powers of perception which were dormant before. Nor must we overlook what they have contributed, in conjunction with the arts of the optician and of the mechanist, to extend the sphere of those senses, and to prolong their duration. If we consider, in like manner, the practical purposes to which the anatomy of the Mind is subservient, we shall find the parallel infinitely to its advantage.<sup>79</sup>

The general rule that progress in the science of mind required experience of exercising the first principles of nature underpinned Stewart's memoir of Mitchell, which he read before the Royal Society of Edinburgh on 3 February 1812 and later published in the seventh volume of *Transactions of the Royal Society of Edinburgh* in 1815.

The nature of Stewart's case study of Mitchell's education resembled Enlightenment experiments on civilising "wild children" through various methods of instructing natural and artificial signs.<sup>80</sup> The treatment of natural and "acquired" arbitrary signs in Stewart's educational doctrine explicitly drew from Reid's *Inquiry* (1764), which had applied Thomas Gordon's philosophy of language from the Wise Club. Stewart suggested that Mitchell's sister had unknowingly exercised a less sophisticated version of Sicard's experimental sign language, which he developed with his blind and deaf pupil Massieu, by rewarding or punishing the perception of artificial signs through the external sense of touch. But Stewart believed that Sicard's course of teaching the "mother tongue" to children born blind and deaf could be improved by including the external sense of smell. Stewart argued that some "of the most significant words relating to the Human Mind (the word sagacity, for instance) are borrowed from this very sense; and the conspicuous place which its sensations occupy in the poetical language of all nations, shew how easily and naturally they ally themselves with the refined operations of the Fancy, and with the moral emotions of the Heart."<sup>81</sup> With that in mind, the gradual cultivation of Mitchell's intellectual powers required "every species of signs by which one mind can hold intercourse with another," which supported Stewart's proposal that the Edinburgh Botanical Garden would be an ideal environment for his school due to its fragrant flowers.<sup>82</sup>

The "rare opportunity" to observe and experiment on methods of Mitchell's instruction motivated Stewart's request that the Royal Society of Edinburgh should fund Mitchell's relocation to Edinburgh. For Stewart, the benefits of developing an experimental education for cultivating intellectual and moral powers from only the external senses of touch, taste and smell extended beyond the particular case of Mitchell. A study of that kind would enlarge an understanding of the capacities of the human mind in "those rudiments of a

rational and improvable nature,” which Dalgarno suggested in *Deaf and Dumb Man's Tutor* (1680).<sup>83</sup> James Wardrop reported in 1813 that

The Boy is now in Scotland, and Professor Dugald Stewart, to whom I have communicated every circumstance of his case, is taking a lively interest in procuring some suitable provision, which might enable the Boy to be placed where an attempt could be made to educate him, and perhaps also to improve his sight by another operation. If this plan be executed under the immediate care and management of Mr. Stewart, everything will be done which can promote the happiness of this interesting youth, whilst science will reap the benefit of the observations of one of the most profound philosophers of the present day.<sup>84</sup>

The instruction of natural and artificial signs as instruments of thought, associative principles and the laws of “sympathetic imitation” featured prominently in the general program of education that Stewart proposed for Mitchell. But Stewart prioritized his commitment to refashioning the *Encyclopaedia Britannica* in the late Scottish Enlightenment over the experimental education of Mitchell.

Stewart never realized his proposed plan to personally tutor Mitchell. He occupied the final decade of his life with refashioning the *Encyclopaedia Britannica* in a two part supplementary *Dissertation* on the progress of metaphysics and completing the third volume of his *Elements of the Philosophy of the Human Mind* (1827), which included an updated memoir of Mitchell in the appendix. In that publication, the case study of Mitchell factored into his treatment of visible and audible artificial signs as instruments of thought that mapped onto the intellectual and moral “progress” of man. The laws of “sympathetic imitation” drawn from instinctive “mimical intellectual powers connected with our bodily frame” demonstrated the different ways in which natural and artificial signs reflected the “habitual train of another person’s thinking and feeling” as an instinctive and experienced source for cultivating “intellectual character”.<sup>85</sup> But the active power of “sympathetic imitation”, which was distinct from Adam Smith’s treatment of “sympathy”, declined as children matured into adulthood. With that in mind, the early period in which Mitchell would best respond to an experimental education had past. From various reports on what became of Mitchell, Stewart concluded that he

...could not help feeling much additional regret at the failure of the plan which I had formed for attempting the farther education of Mitchell. His intellectual capacity (manifested in that prudential sagacity which has been the gradual result of his very limited experience, and still more remarkably in that foresight which enables him to look forward with dread to the possibility of future contingencies) seems to me now to be far superior to what I had previously apprehended. How invaluable was the opportunity which has been thus lost of adding to the Natural History of the Human Mind! No exertion certainly was wanting on my part, aided by the cordial co-operation of the Royal Society of Edinburgh, to accomplish the objects we had in view.<sup>86</sup>

The missed opportunity to refine his system of moral education and enrich the life of Mitchell was not Stewart's only regret in the late Scottish Enlightenment. After confronting a series of distinct counter-Enlightenment movements throughout a distinguished career as a professor of moral philosophy between 1785 and 1820, he could not prevent the decline of Scottish Enlightenment intellectual culture during the twilight of his life. And yet, former students fulfilled Stewart's "generous wish, that the name of Dalgarno should be rescued from oblivion" by reprinting *The Works of George Dalgarno of Aberdeen* in 1834 as an initiative of the Maitland Club after the Scottish Enlightenment.<sup>87</sup>

## **Conclusion**

The systematic attempts to cultivate natural knowledge in the works of Dalgarno, Reid and Gordon in the Wise Club and Stewart "progressed" the Scottish science of mind before, during and after the Scottish Enlightenment. The Wise Club revived an interest in Dalgarno's universal language, which factored in the development of common sense philosophy as Scotland's most successful invisible export during the late eighteenth and early nineteenth century. As a critical intellectual disciple of Reid, Stewart's system of moral education sustained Scottish

Enlightenment intellectual culture in a reformed version of common sense philosophy for a new generation. In this way, the associational lives among Scottish thinkers assisted in shaping their “progress” in the science of mind during the long eighteenth century. The creative engagement with Molyneux’s Problem in that Scottish pattern of philosophical thinking demonstrated the value of early education and the perfectibility of the human constitution as progressive pathways towards Enlightenment.

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<sup>1</sup> Dugald Stewart, *Dissertation: Exhibiting the Progress of Metaphysical, Ethical, and Political Philosophy, Since the Revival of Letters in Europe, parts I & II published as a Supplement to the 6<sup>th</sup> edition of the Encyclopedia Britannica* (Edinburgh: Constable, 1821), 284-5.

<sup>2</sup> Molyneux to Locke, 2 March 1693, quoted in John Locke, *An Essay Concerning Human Understanding* (London, 1694), 651.

<sup>3</sup> On Molyneux’s friendship with Locke, see J.G. Simms, *William Molyneux of Dublin: A Life of the Seventeenth-Century Political Writer & Scientist*, edited by P.H. Kelly (Dublin: Irish Academic Press, 1982), 73-90. On Locke’s response to Molyneux’s question see, Hans Aarsleff, “Locke’s influence,” in *The Cambridge Companion to Locke*, ed. Vere Chappell (Cambridge: Cambridge University Press, 1994), 266.

<sup>4</sup> Anthony Wood, *Athenæ Oxonienses: An exact history of all the writers and bishops who have had their education in the University of Oxford*, new edition, vol. 3 (London, 1813), 970.

<sup>5</sup> See *Fasti Academiae Mariscallanae Aberdonensis*, ed. Peter John Anderson, vol. two (Aberdeen: Printed for the New Spalding Club, 1889), 204, 207.

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<sup>6</sup> See Colin McLaren, *Aberdeen Students, 1600-1860* (Aberdeen: University of Aberdeen, 2005), 4-15; *Roll of Alumni in Arts of the University and King's College of Aberdeen, 1596-1860*, ed. Peter Anderson (Aberdeen: University of Aberdeen, 1900).

<sup>7</sup> On Patrick Dun's education as an alumnus of Marischal College and inheritance of humanism, see Duncan Cockburn, "Liddel and the University of Aberdeen," in *Duncan Liddel (1561-1613): Networks of Polymathy and the Northern European Renaissance*, eds. Pietro Daniel Omodeo and Karin Friedrich (Leiden and Boston: Brill, 2016), 196-198.

<sup>8</sup> David Cram and Jaap Maat (eds.), *George Dalgarno on Universal Language: 'The Art of Signs' (1661), 'The Deaf and Dumb Man's Tutor' (1660), and the Unpublished Papers* (Oxford: Oxford University Press, 2001), 1-9.

<sup>9</sup> Peter Harrison, *The Fall of Man and the Foundations of Science* (Cambridge: Cambridge University Press, 2009), 209.

<sup>10</sup> Samuel Hartlib to George Dalgarno, 18 July 1658, British Library, Add MS 4377, f. 149.

<sup>11</sup> Dalgarno, *Didascalocophus* reprinted in *Works*, 113.

<sup>12</sup> Peter Harrison, *The Fall of Man and the Foundations of Science* (Cambridge University Press, 2009), 210-211.

<sup>13</sup> Dugald Stewart, *Some account of a boy born blind and deaf, collected from sources of information; with a few remarks and comments* (Edinburgh: Constable; London: Cadell and Davies, 1815), 51.

<sup>14</sup> George Dalgarno, *Didascalocophus or The Deaf and Dumb mans Tutor* (1680; repr., Edinburgh: Printed for the Maitland Club, 1834), 117.

<sup>15</sup> *Ibid.*, 118.

<sup>16</sup> *Ibid.*, 120.

<sup>17</sup> *Ibid.*, 128.

<sup>18</sup> *Ibid.*, 138.

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<sup>19</sup> Ibid., 139.

<sup>20</sup> See *The Minutes of the Aberdeen Philosophical Society, 1758-1773*, ed. Lewis Ulman (Aberdeen: Aberdeen University Press, 1990), 24-43.

<sup>21</sup> Roger Emerson, *Professors, Patronage and Politics: The Aberdeen Universities in the Eighteenth Century* (Aberdeen: Aberdeen University Press, 1992), 35.

<sup>22</sup> See George Turnbull, *Philosophical Theses: On the Association of Natural Science with Moral Philosophy*, in *Education for Life: Correspondence and Writings on Religion and Practical Philosophy*, eds. M.A. Stewart and Paul Wood (Indianapolis, Indiana: Liberty Fund, 2014), 45-58.

<sup>23</sup> George Turnbull, *The Principles of Moral Philosophy: An Enquiry into the Wise and Good Government of the Moral World in Which the Continuance of Good Administration, and of Due Care about Virtue, for ever, is inferred from present Order in all Things, in that Part chiefly where Virtue is concerned* (London: John Noon, 1740), 49.

<sup>24</sup> Dugald Stewart, *Biographical Memoirs of Adam Smith, LL.D., of William Robertson, D.D., and of Thomas Reid, D.D.* (Edinburgh: Creech, 1811), 404.

<sup>25</sup> McLaren, *Aberdeen Students*, 66.

<sup>26</sup> See Paul Wood, *The Aberdeen Enlightenment: The Arts Curriculum in the Eighteenth Century* (Aberdeen: Aberdeen University Press, 1993), 77-159.

<sup>27</sup> Alexander Gerard, *Plan of Education in the Marischal College and University of Aberdeen, with the reasons of it, Drawn up by Order of the Faculty* (Aberdeen: James Chalmers, 1755), 20.

<sup>28</sup> *Minutes of the Aberdeen Philosophical Society*, 78.

<sup>29</sup> On Campbell's treatment of eloquence, see Kathleen Holcomb, "Wit, Humour and Ridicule: George Campbell's First Discourse for the Aberdeen Philosophical Society," in

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*Aberdeen and the Enlightenment*, eds. Jennifer Carter and Joan Pittock (Aberdeen: Aberdeen University Press, 1987), 282-290.

<sup>30</sup> George Campbell, “The Relation that Eloquence bears to Logic,” Aberdeen University Library Special Collections, MS 3107/1/3 f. 43.

<sup>31</sup> David Hume, *A Treatise of Human Nature: Being An Attempt to introduce the experimental Method of Reasoning into Moral Subjects*, vol. 1 (London: John Noon, 1739: 114-5.

<sup>32</sup> *Ibid.*, 6.

<sup>33</sup> In his *Essay Concerning Human Understanding* (1694), Locke’s theory of ideas illustrated an empirical way to treat ‘Ideas’ in Books I and II, ‘Language’ in Book III and ‘Knowledge’ in Book IV. In the first chapter of Book I, Locke identified an idea as ‘whatsoever is the Object of the Understanding when a Man thinks’. ‘Simple ideas’ derived from the experience of external sense perceptions (sight, touch, taste, sound and smell). Through introspective ‘reflection’ discussed in Book II and the use of ‘reason’ examined in Book IV innate faculties of the mind exponentially combine ‘simple ideas’ to form ‘complex ideas’.

<sup>34</sup> Hume, *Treatise*, Book III, 405-6. See John Wright, *Hume’s A Treatise of Human Nature: An Introduction* (Cambridge: Cambridge University Press, 2009), 184-5.

<sup>35</sup> Henry Home, Lord Kames, *Essays on the Principles of Morality and Natural Religion*. Edinburgh: Kincaid and Donaldson, 1751), 25, 282, 284.

<sup>36</sup> See C.B. Bow, “The ‘Final Causes’ of Scottish Nationalism: Lord Kames on the political economy of enlightened husbandry, 1745-1782,” *Historical Research*, 91, no. 252 (2018): 296-313.

<sup>37</sup> Thomas Reid to David Hume, 18 March 1763 in *The Correspondence of Thomas Reid*, ed. Paul Wood (Edinburgh: Edinburgh University Press, 2002), 31.

<sup>38</sup> See C.B. Bow (ed.), *Common Sense in the Scottish Enlightenment* (Oxford: Oxford University Press, 2018).

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<sup>39</sup> Reid to Hume, 18 March 1763, 31.

<sup>40</sup> Chappell documents that Locke's broad conception of "ideas" appeared in his *Essay* as the most frequently used noun (Vere Chappell, "Locke's Theory of Ideas," in *The Cambridge Companion to Locke*, ed. Vere Chappell (Cambridge: Cambridge University Press, 1999), 26). On Reid's criticisms about the sceptical consequences of Locke's theory of ideas, see John Greco, "Reid's Reply to the Skeptic," in *The Cambridge Companion to Thomas Reid*, eds. Cuneo and Woudenberg (Cambridge: Cambridge University Press, 2004), 137-8.

<sup>41</sup> On Hume's theory of ideas, see James Harris, *Hume: An Intellectual Biography* (Cambridge: Cambridge University Press, 2015), 86-7.

<sup>42</sup> Thomas Reid, *An Inquiry into the Human Mind on the principles of Common Sense* (Edinburgh: Kincaid and Bell, 1764), iv.

<sup>43</sup> Thomas Reid, "The difficulty of a just philosophy of the human mind; General prejudices against D-d Hume's system of the mind; & some observations on the perception we have by sight" 14 June 1758, Aberdeen University Library Special Collections MS 3107/1/3, ff.17-18.

<sup>44</sup> *Ibid.*, 19.

<sup>45</sup> *Ibid.*

<sup>46</sup> *Ibid.*, 30.

<sup>47</sup> See William Cheselden, "An Account of Some Observations Made by a Young Gentleman, Who Was Born Blind, or Lost His Sight so Early, That He Had no Remembrance of Ever Having Seen, and Was Couch'd between 13 and 14 Years of Age," *Philosophical Transactions*, vol. 35 (1728): 447-450.

<sup>48</sup> Reid, *Observations on sight*, 23.

<sup>49</sup> Thomas Gordon, "Of the Philosophy of Language & Grammar," 31 March 1761, Aberdeen University Library Special Collections, MS 3107/1/4, f. 38.

<sup>50</sup> *Ibid.*

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<sup>51</sup> Ibid., 42.

<sup>52</sup> See Christopher Berry, "Adam Smith's *Considerations on Language*," *Journal of the History of Ideas*, 35, no. 1 (1974): 130-138.

<sup>53</sup> Stewart, *Biographical Memoirs*, 49.

<sup>54</sup> Gordon, *Philosophy of Language*, 43.

<sup>55</sup> Ibid., 44.

<sup>56</sup> Ibid.

<sup>57</sup> Ibid., 48.

<sup>58</sup> Thomas Reid, "Lecture Notes on Moral Philosophy," taken during the academic session of 1768-1769, Glasgow University Library Special Collections, Gen. 760, f. 1.

<sup>59</sup> Ibid., f. 6.

<sup>60</sup> Stewart, *Memoirs*, 429.

<sup>61</sup> Ibid., 428-29.

<sup>62</sup> Ibid., 428.

<sup>63</sup> Dugald Stewart to Thomas Reid, 1774-75 in *The Collected Works of Dugald Stewart*, ed. John Veitch (Edinburgh: Constable, 1860), 1.133-4.

<sup>64</sup> Ibid.

<sup>65</sup> Dugald Stewart, *Elements of the Philosophy of the Human Mind*, vol. 1 (Edinburgh: Creech, 1992), 7.

<sup>66</sup> Dugald Stewart, "Lectures on Moral Philosophy," notes taken by Archibald Bell during the session of 1793-94, Edinburgh University Library Special Collections, Dc.4.97LMP, ff. 88-89.

<sup>67</sup> See Bob Harris, "Political Protests in the Year of Liberty, 1792," in *Scotland in the Age of the French Revolution*, ed. Harris (Edinburgh: John Donald, 2005), 49-78.

<sup>68</sup> Reid to Stewart, 1791 in *The Correspondence of Thomas Reid*, 211-23.

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<sup>69</sup> Thomas Reid, *Essays on the Active Powers of Man* (Edinburgh: John Bell, 1788), 78-82.

<sup>70</sup> Reid to Stewart, 1791 in *The Correspondence of Thomas Reid*, 217.

<sup>71</sup> Ibid.

<sup>72</sup> Dugald Stewart, "Lectures on Moral Philosophy," notes taken by an unidentified student during the session of 1789-90, Edinburgh University Library Special Collections, Gen.1987-9.

<sup>73</sup> Ibid.

<sup>74</sup> Sir Walter Scott to Crabbe, January 1813 in Scott, *Journal* (Edinburgh: Oliver and Boyd, 1950), 211.

<sup>75</sup> Dugald Stewart, 'Notes from Mr Stewart's Lectures on Moral Philosophy, read in the University of Edinburgh', taken by James Bridges during the academic session of 1801-02, Edinburgh University Library Special Collections Dc.5.88, f. 20.

<sup>76</sup> Dugald Stewart, 'Notes on Moral Philosophy being the substance of a course of lectures on that subject by Professor Stewart, taken by Archibald Alison Jr. during the academic year of 1808-09, Edinburgh University Library Special Collections, Gen 1382, vol. 1, f. 57.

<sup>77</sup> Ibid., f. 58.

<sup>78</sup> Dugald Stewart, *Philosophical Essays* (Edinburgh: Creech and Constable, 1810), xlv.

<sup>79</sup> Ibid., xlvii.

<sup>80</sup> See Julia Douthwaite, *The Wild Girl, Natural Man and the Monster: Dangerous Experiments in the Age of Enlightenment* (Chicago: University of Chicago Press, 2002), 134-141.

<sup>81</sup> Stewart, *Blind & Deaf*, 37.

<sup>82</sup> Ibid., 38.

<sup>83</sup> Ibid., 62.

<sup>84</sup> James Wardrop, *History of James Mitchell, A Boy Born Blind and Deaf, with an Account of*

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*the Operation performed for the recovery of his sight* (London: Murray; Edinburgh: Constable, 1813), 43.

<sup>85</sup> Dugald Stewart, *Elements of the Philosophy of the Human Mind*, vol. 3 (Edinburgh: Constable, 1827), 105, 125.

<sup>86</sup> *Ibid.*, 317.

<sup>87</sup> *The Works of George Dalgarno* (Edinburgh: Printed for the Maitland Club, 1824), xii.