

The Establishment of Empirical Logic in 18th century Scottish Moral Philosophy

Shinichi Nagao

In 1971 Wilbur Samuel Howell depicted the history of a new logic, 'empirical logic', in *Eighteenth-Century British Logic and Rhetoric*. The work is still regarded as a standard account of the development of modern logic in Britain. It says that Locke was stimulated by the emergence of empirical sciences in the 'scientific revolution' and gave inspirations to his followers to invent a new logic based on empirical epistemology. Howell wrote that the new school of logic was first established by George Campbell and Dugald Stewart and then revived by J. S. Mill in his *A System of Logic*. Thomas Reid was given the status of their precursor in his study.

The aim of this paper is to point out that the founders of the logic were not Campbell and Stewart, but Thomas Reid and Alexander Gerard. Their surviving lecture notes on logic taught in the middle of the century supply clear evidences that they established a elaborate theory of new logic. When they worked at Aberdeen University, they formulated the system of empirical logic in the context of critic against David Hume and continental philosophies. The theory of evidence described in the books of Campbell and Stewart was at first established by Reid and Gerard. Gerard also explained the logic of scientific discovery in his lectures. Thus the role of Thomas Reid and Alexander Gerard in the history of modern logic must be reconsidered.

(1) Introduction-Reid and Kames on scientific method

In 1774, Reid has published a treatise on logic as an appendix to one of John Hume's book, *Sketches of the History of Man*, Edinburgh, 1778.¹⁾ In Lord Kames' words, it was "A distinct and candid account of a system that for many ages governed the reasoning part of mankind,"²⁾ that is, of Aristotelian logic.

Though both philosophers were regarded as the founders of Common Sense School, the views of Reid and Kames on scientific method were not identical. They exchanged letters on Kames's paper on the

laws of motion published in *The Essays and Observations of Edinburgh Philosophical Society*. There was an obvious disagreement whether Newtonian method could supply the only and legitimate way to promote empirical sciences. While Reid, a professional natural scientist and a committed empiricist, repeatedly emphasized the importance of inductive reasoning in natural philosophy, Kames irritated by the rigid restrictions posed upon human intelligence by early Newtonian methodology, typically reiterated in the books of Henry Pemberton and Colin MacLaurin in the early 18th century.³⁾ They had, however, a common interest to stand against both

Humian and Aristotelian philosophy. As Kames wrote in the preface to Reid's essay, traditional logic was thought to have no use in the pursuit of truth.

"Curiosity will be gratified, in feeling a phantom delineated that so long fascinated the learned world; a phantom, which shows infinite genius, but like the pyramids of Egypt or hanging gardens of Babylon, is absolutely useless unless for raising wonder."⁴⁾

"The despotism of Aristotle with respect to the faculty of reason, was no less complete, than that of the Bishop of Rome with respect to religion...In my reveries, I have more than once compared Aristotle's logic to a bubble made of soap-water for amusing children; a beautiful figure with splendid colours; fair on the outside, empty within."⁵⁾

This was the context in which Reid made a very critical account of Aristotelian logic in his appendix to the book. The essay was regarded, by Wilbur Samuel Howell, to have marked the beginning of 'empirical logic' in the history of modern logic. The aim of this paper is to point out the achievements of Reid and Alexander Gerard in the science when they worked at Aberdeen.

(2) "Empirical logic" and Reid, Gerard

The term "empirical logic" has special meaning in the history of modern logic and rhetoric written by Wilbur Samuel

Howell.⁶⁾ Howell outlined the school of new logic initiated by John Locke in the 17th century. Locke was stimulated by the emergence of empirical sciences in the 'scientific revolution' and gave inspirations to his followers to invent a new logic based on empirical epistemology. Howell wrote that this new school of logic was first established by George Campbell and Dugald Stewart and revived by J. S. Mill in his *A System of Logic*. Reid was given the status of their precursor in the book.

However, if we observe Reid's logic not described in his appendix to Lord Kames' book, as Howell did, but in his lecture notes at Aberdeen university taken in 1763,⁷⁾ it becomes clear that the historiography of the Howell must be reconsidered. The evidences contained in the lecture notes demonstrate that most of the arguments Howell found in the works of Stewart and Campbell were already developed by Thomas Reid. Moreover, His colleague, Alexander Gerard, treated the same subjects in his lecture notes on moral philosophy much earlier than Reid's surviving lecture notes. As we will see later in this paper, the chronology of new logic therefore must be rewritten. Its dates of birth have to be moved up one generation earlier, from the days of Stewart and Campbell to those of Reid and Gerard in Aberdeen.

Furthermore, the transformation of logic from Aristotelian to empirical was not the isolated attempts of individual philosophers inspired by the success of

experimental philosophy and the writings of John Locke, as Howell once characterized, but was the collaborative actions of philosophers who tried to promote the project consciously and collectively. There was a common cause for these Abaddonian philosophers when they taught logic at the university. Gerard wrote down a program to reform logic and bring it in harmony with the development of empirical sciences. As Howell formulized, this was the inspiration that stimulated the invention of new logic.

The reform of traditional logic was, indeed, one of the focal points in the curriculum reform of two universities in Aberdeen. Gerard gave detailed program of the educational reform of the universities in his pamphlet published in 1755. As many of his contemporaries, anti-Aristotelian sentiment was the *Leidmotiv* of it. He attacked the scholastic philosophy and the teaching system based upon it, although Aristotelian logic had already ceased to exist in the teaching practice of Scottish universities in the beginnings of the century. Howell did not seem to notice this. Thus it is very likely that Gerard's critic was not against Aristotelian logic itself, but the legacy of the Scholastic system of educational structure still existing in his university. The point he tried to make was the necessity of building a new system of knowledge that should have replaced the older ones.

"The chief business of that philosophy, was, to express opinions in hard and un-

intelligible terms; the students needed a dictionary to or nomenclature of the technical words and authorised definitions; experiment was quite neglected, science was to be reasoned out from general principles, either taken for granted, or deduced by comparison of general ideas, or founded on very narrow and inadequate observation."⁸⁾

Gerard stressed that Aristotelian logic gave the frameworks to the philosophy and the teachings built upon it. Therefore, it is, as Reid described with contempt in his lectures on logic, not useful, even harmful, to guide the minds of inexperienced young students into the mystery of nature and human mind, which have already partially brought into light by new experimental philosophy of Isaac Newton.

"the old logic of the Greeks, is most significant part of all ancient learning, on which the scholastic logic of latter times is founded, answers indeed one purpose. It enables a man to argue plausibly and readily, in defense either of truth or falsehood, ...it may make him noisy, captious, talkative, and ill-natured."⁹⁾

After the foundation of genuine method of sciences, students' minds should be lead by careful experimental reasoning. Here logic no more has the whip that should be used to drive all sciences to follow the proper way of thinking. Instead, it must borrow its own contents from them. In other words, logic is not necessary to carry out proper scientific reasoning in general.

This does not mean that logic is no longer necessary in science. It is now given the new role as the “toolbox” of reasoning in general, and scientific researches in particular.

“The logic that can answer this end, must accurately examine and carefully ascertain the various kinds of evidence, their foundations, their laws, the subjects to which they belong, the degree of species of assent which they produce; it must lay open the sources of error, the causes of false judgment, and the conduct of the understanding by which it may be prevented; it must explain the different methods of invention, at once suited to the constitution of the mind, and to the varieties of the objects it is conversant with.”¹⁰⁾

Therefore, logic occupies the denouement of academic learning instead of the overture of it. It becomes an empirical science to examine the method of proper reasoning, rather than a deductive system to give the normative rules of it. In other words, logic became the organ for supplying proper methods to sciences in summarizing and evaluating their achievements. Gerard was in the position to unify the attempts of Scottish teachers of philosophy in the first half of the century. Newtonianism had introduced to Scottish universities and been taught there for several decades. The doctrines of John Locke had been discussed, too. The task he had taken then was not to criticise the faults of Aristotelian logic. He only had to take a

synthetic role, that is, to conjure up a comprehensive picture of knowledge based on the newly found way of reasoning. Empirical logic was seen to have orchestrating functions in it. Thus the idea of it was developed much earlier than Howell's chronology.

(3) The methodology of science

Now it is obvious that the reform program of logic, which Howell have seen in several publications of Scots in the second half of the 18th century, was formulated in the middle of the century. It was explicitly stated by Gerard in the time of the curriculum reform of the Universities in the middle of the century. Moreover, there appear the essential elements of empirical logic in this statement. That is, the theory of evidence and the methodology of science that were developed in the lecture notes of Reid and Gerard. It is natural that the reformed logic contained many references to, and the expositions of, the true methodology of sciences. This reform project, as Howell said, based upon the belief that modern empirical science had finally found the right way to discover the truth of nature. Methodological viewpoint of Gerard expressed in the pamphlet was very similar to those of Thomas Reid and early Newtonians. Inductive reasoning, he said, was the only way to find general laws of nature. Therefore it is no wonder that in his lectures on logic, Gerard introduced

“the rules of philosophising” of Newton in *Principia* as the true method in sciences.

“The most general rules of Philosophizing are-

1. That in collecting experiments, care must be taken to bring into views all the facts that are necessary for complete investigation, and at the same time to select the principal experiments or instances.
2. that more causes are not to be admitted than are true and sufficient for explaining the phenomena.
3. for effects of the same kind, if same causes are to be assigned as far as it can be done.
4. that propositions collected from phenomena by induction are to be looked upon as true, notwithstanding of contrary hypothesis, till other phenomena occur, by which they may be rendered either more accurate or be able to exception.”¹¹⁾

This presentation of Newtonian method is almost identical to those of Reid's accounts in his unpublished essay written against Priestley. Reid was fiercely against Priestley's interpretation of Newton's rules and unfolded an empiricist interpretation of Newtonian methodology in the paper.¹²⁾ In addition, Reid and Gerard had the same methodological viewpoint about the method of social sciences, too. In the lectures Gerard continued his statements on method in referring to the same ideas that George Turnbull expressed in his

Principles on Moral Philosophy ;

“These rules are not only applicable to natural philosophy, but also to that of human mind.”¹³⁾

He wrote in the pamphlet of educational reform that the method of two branches of sciences was the same.

“The philosophy of spirits, as well as that of bodies, is founded solely on experiments and observations”¹⁴⁾

Reid declared in his *Inquiries* that there was no other method in sciences than Newtonian method and it could be applied to moral sciences as well as to all natural sciences. Before the publication, he told his students the same opinions in his lectures on logic.

“induction is not confined to natural philosophy. There is no doubt many cases in politics and other things with regard to the mind in which we may reason from particular facts.”¹⁵⁾

Reid thought that the ideal of the inductive reasoning was showed by Newton in his *Principia* and *Optics*. Reid accurately distinguished “Baconian” inductive method that repeatedly reiterated by the scientists of Royal Society, and Newton's method written down in his books. Reid taught that the latter was superior to former as a method of science, for when he argued on “induction” in experimental sciences, he had the method of analysis and synthesis in his mind, as he explained later in the lectures.

“the third book of principia and opticks

are masterpieces of this kind of reasoning and more is to be learned from it than even Lord Bacon's rules."¹⁶⁾

Experimental sciences and the Newtonian method of *Principia* and *Opticks*, were the cornerstones of new logic advocated by the reformers in the 1750s. Gerard and Reid, two representative figures of Aberdonian reformers of education and sciences, belonged to the same school of methodological thinking in the 18th century.

(4) Reid's theory of evidence

Howell wrote that George Campbell in his *Philosophy of Rhetoric* published in 1776, contributed to new logic in constructing the theory of evidence.

"The theory of evidence represents what Campbell himself called natural logic. Natural logic teaches that a statement is sometimes accepted intuitively as true, and that all other occasions truth would have to be established by deductive means. An intuitive recognition of the truth of a statement would arise, said Campbell, from intellection, from consciousness, or from common sense."¹⁷⁾

The same theory can be found in Reid's *Essays on the Intellectual Powers of Man* published in 1785. It is understandable that Howell regarded Campbell as the founder of the theory because Reid's book was published after the Campbell's account. However, here lies another misunderstanding

of the history of new logic in the country. The theory was established by Reid and Gerard before the publication of Campbell's account. The theory of evidence has, as Barbara Shapiro has once pointed out,¹⁸⁾ developed in the 17th century by English scientists and philosophers to fight with enthusiasts and materialists to protect both sciences and moderate religious beliefs. It was introduced to Scotland with new sciences. Reid and Gerard were taught the theory at Aberdeen University in the 1750s and 60s.

From the surviving lecture notes, Reid's lectures summarized traditional Aristotelian logic briefly and clearly in their introduction. In order to give foundation to the theory of succeeding chapters, he proceeded to the descriptions of the empirical psychology of Locke and Hume. In so doing, He never forgot to point out several errors in their *Essays* and *Treatise*, too. Then he taught the theory of evidence in his lectures. The theory of evidence is another essential component of new logic. The reader of the lecture notes will find that one of his main interests to develop the theory was to disarm Humean philosophy in depriving it of its logical validity, as well as to argue against Aristotelian logic. Reid focused on the difference between simple apprehension and judgment and accused Hume of giving unclear distinction to them.

"He (Hume) affirms that judgment or belief, differs in no other way from simple apprehension, but that it is a most lively

idea or notion, of the same thing, that is a man conceives a golden mountain without believing such a thing exists, this is only a simple apprehension, and other believes it to be somewhere as in Peru perhaps, wherein do these differ only that the latter has a mere lively idea than the former—surely all the paradoxes Hume has advanced, none is most ridiculous than this.”¹⁹⁾

“if a person just now has a notion of the king of Prussia’s having come before Strasand and taken it by storm, he may according to Mr. Hume, actually believe he has taken it, by form the a more lively idea of his former notion.”²⁰⁾

“every man of common sense who either know or sees the illustrious actions of this prince in Germany will readily ascribe him that he is a man of resolution and magnanimity, illustrious and truly heroic”²¹⁾

The reason of Hume’s fallacy is that he did not think that judgment depended on the ability embedded in human constitution. In other words, the legitimacy of it is not explained, but self-evidently known to everybody except philosophers like Hume.

“...should anyone ask how a simple apprehension differs from judgment, I believe unless he has the perception of the difference within himself, no man can convey it to him. Judgment is no less an original operation of the mind than simple apprehension and is as incapable of a definition.”²²⁾

Furthermore, contrary to the descrip-

tion of Howell, Reid’s theory of evidence did not entirely depend on the principles of empirical sciences. Citing the example of Friedlich the II, Reid taught that several kinds of judgments were not based upon it, even in the cases when their certainty was beyond doubt.

“...of the truth of this as of any proposition in Euclid ; for tho’ the proofs evidently differ, yet they are both satisfactory to human nature... both cases we have no experience, seeing efficient cause and being a prince, but both conclusion are certain”²³⁾

He also pointed out that the principles of belief are different from logical evidences.

“Alexander the great, another tell me, there was never such a man on earth ; why ? If I undertake to convince him of it, and proceed by introducing the testimony of contemporary authors, and of many subsequent ones, but he rejects all these as fictions, and so I must lose my point.”²⁴⁾

Then he counted several species of evidence that were categorically different with each other. The first is the evidence of consciousness ; the second is of external senses ; the third, of the identity of ourselves ; the fourth, of memory ; the fifth evidence is the evidence of causality. In this context, he gave an example that Humian attack on causality looked absurd.

“sun’s move and a clock which points 12 for many years day and night no one thinks cause and effect about them.”²⁵⁾

The sixth evidence is of testimony ; the

seventh evidence is related to mathematical demonstrations.²⁶⁾ Reid criticized Locke's notion of moral evidence in this context.

"this is no doubt one kind of evidence tho' Locke and others have been wrong to reduce all kinds of evidences to it....but it is to be observed, that any proposition in morals that expresses an obligation to any duty, must not only include in it general and abstract ideas, but also the notion of persons and something really existing"²⁷⁾

The eighth evidence is the evidence of experience that is the principle of experimental philosophy. Again he stressed that the principles of experimental philosophy could be adapted in moral sciences, too. The last evidence is of morals. Some moral judgments are self-evident and others are not. Reid thought the theory of evidence is an essential part of new logic. It is far more important in logic than syllogism.

"I have insisted so long on the various kinds of evidences, because I look upon it, as one of the chief and most important things, that deserve the name of logic."²⁸⁾

These evidences are founded on the constitution of human nature and cannot be reduced to something else or to some of them. They have equal right to be the final premises of truths.

"the evidences we have mentioned are the first or original principles in human nature"²⁹⁾

It is certain from the statements of

Gerard in the pamphlet that the theory of evidence brought to the system of logic because of the empirical nature of the science. The truths have different origin for there are different kinds of ways in finding truths. But this is only the one side of the coin. As Reid tells us, the theory was consciously built to defend religion and natural theology against Hume's philosophy, too. Hume's intention to argue against causality was interpreted by Reid as an attack on natural theology.

"he intends to destroy hereby all the arguments for an efficient cause of the fabrick of this universe."³⁰⁾

The weapon Hume employed originated in the works of Locke, that is, the method of empiricism.

"He builds our notion of cause entirely upon experience"³¹⁾

Treating Hume's arguments on miracles, Reid rejected the notion that there was only one principle of truth, even of empiricism. The evidence of testimony was independent from that of experience, for example. The evidence of testimony has introduced to find the reason to believe religion because "experience teaches us incredulous"³²⁾

"So that I think we may lay this down as a principle that there are facts we may take as safely upon testimony, as if we were ear-witnesses of them, and if this principle be taken away, common life must be unhinged."³³⁾

Furthermore, natural theology that he

tried to defend was a special kind. Reid, as MacLaurin had done, argued for the voluntarist version of natural theology that allowed God's voluntary intervention into the world, citing sometimes the same examples that MacLaurin presented in his accounts of Newton's natural philosophy.

"We see and convinced that the ocean has once covered the earth, for marine bodies are found on the highest mountains and it is nothing unreasonable or difficult to be admitted, that when the irregularities of the present laws of nature may introduce into the system, both by the resistance of planet meet with, in their revolutions, however small and by their mutual actions upon one another, shall have disordered the form, that a new set of laws may take place. Since therefore this certain that things have happened contrary to the present system, and that it is probable to suppose that such things will afterwards happen, and also since every one who acknowledges the being of a Deity, must know that he governs the universe by fixed and stated laws: what absurdity is then in conceiving, that this superiority over nature should for reason known to himself, deviate from and suspend for a little their laws, evidence his power and authority in some extraordinary manner?"³⁴⁾

In short, Reid built a system of logic based upon the empiricist method and the theory of evidence; both were the legacies of 17th century English scientific thought. Howell also wrote that Dugald Stewart

had built the system of new logic in *The Elements of the Philosophy of Human Mind*, 1792, following Reid's suggestions.

"His long fourth chapter in the second volume of the *Elements* is impressive. Here is the list of the subjects which is treated; the difference between Aristotle and Bacon in regard to the concept of causation; the inductive logic as the logic of physical causes; the inductive method as the method of observation, analysis, and synthesis; the difference between Aristotle and Bacon in regard to the concept of induction; the difference between the concept of analysis in Greek mathematics and that same concept in modern inductive science; the distinction between experience and analogy in the fields of scientific evidence; the grounds afforded by analogy for scientific inference and conjecture; the use and abuse of hypotheses in philosophical enquiries; misapplications of the words experience and induction in the terminology of modern science, with illustrations from medicine and political economy; and the conflict in modern philosophical opinion about final causes as a legitimate object of research."³⁵⁾

Reid lectures contain most of the elements Howell thought to be attributed to the works of Stewart. They treated scientific methodologies, induction, analysis and synthesis, etc., which later Dugald Stewart described fully in his book. The new logic emerged, not from the period after 1770s as Howell supposed, but from 1750s to early

1760s, when the university reform took place and Aberdeen Philosophical Society was founded. Furthermore, it was designed not only to replace Aristotelian logic that had already ceased to exist in Scottish universities' educational system, but also to defend the credo of scientists of early 18th century Britain, a certain kind of natural theology, both from continental philosophers and David Hume.

(5) Gerard's "logic of scientific discovery"

It is worth to be noticed, however, that the reformers in Aberdeen were not only looking backward, trying to defend empirical method and Newtonian natural theology against Descartes and Hume, but also had progressive imaginations in their minds. The new inspiration appeared in the lectures on logic by Alexander Gerard taught at Marishal college in 1758 to 1759.³⁶⁾ In his lectures Gerard gave the same arguments on evidence and methodology that Reid would teach a few years later.

"dialectics is the part of logic which assists the human understanding in judging truth or in distinguishing it from falsehood. We shall divide it into two parts. In the first we shall consider the general notion and principles of the several kinds of evidences...In the second, we shall consider complication of these different kinds of evidence in the several sciences and what-

ever, relates to assistance or improvements of understanding in judging."

Furthermore, on the second part of his lectures entitled "invention and sciences", he developed a theory that would appear in his masterpiece, "*Essay on Genius*" published in 1774. Employing the laws of association, this book examined the genius of science as well as of art. His lectures treated only scientific genius but the explanatory tools were the same. Scientific genius, according to his theory, is the product of the combination of the properly used imagination and the sound execution of reason and judgement.

Here Gerard touched upon one of the critical issues in the scientific method of the 18th century, that is, the relations between empiricism and imagination. Early Newtonians repeatedly criticized "genius and invention". They thought that unregulated imagination created groundless system of philosophy typically represented in those of Descartes and Leibnitz. Gerard, on the one hand, in describing imagination as the key to new invention, put internal creativity on the centre of scientific discovery. On the other hand, he followed the same line of argument that early Newtonians had made against their enemies. If "reason and judgment" correspond to the theory of evidence and methodology in his logic, new logic supplies means to train creative genius of analogy within the framework of Newtonian synthesis. Thus the establishment of new logic

upon the foundation of modern empirical sciences was not only the attempt to absorb the impact of “scientific revolution” in the way to destroy Aristotelian logic by empiricism and induction, but also to find the logic of scientific discovery by empirical psychology, as well as to build means to bring the geniuses of invention into Newtonian camp.

The foundation of “empirical logic” was not the achievement of Reid’s students. New logic was born as the result of collective effort of Aberdonian reformers in 1750s who consciously tried to replace Aristotelian pedagogic system of the university and at the same time to protect synthesis of experimental philosophy from Humian attack. Along with Reid, Alexander Gerard was certainly a major figure in this project.

Notes

- 1) Lord Kames, *Sketches of the History of Man*, Edinburgh, 1778.
- 2) Lord Kames, *Sketches of the History of Man*, Georg Verlagsbuchhandlung, Hildesheim, 1968, p. 300.
- 3) Shinichi Nagao, *Newtonianism and the Scottish Enlightenment*, Nagoya University Press, 2001, Chapter 7.
- 4) *Ibid.*, p. 300.
- 5) *Ibid.*, p. 304.
- 6) Wilbur Samuel Howell, *Eighteenth-Century British Logic and Rhetoric*, Princeton University Press, Princeton, New Jersey, 1971.
- 7) Thomas Reid, John Campbell, 1775, *The system of Logic, taught at Aberdeen 1763, by dr. Thomas Reid, now professor of moral philosophy of Glasgow*, Edinburgh University Library DK 3. 2.
- 8) Alexander Gerard, *The Plan of Education in the Marischal College and University of Aberdeen, with the reasons of It*, 1755, p. 4.
- 9) Thomas Reid, *Lectures on Logic.*, p. 204.
- 10) *Ibid.*, pp. 8-9.
- 11) Alexander Gerard, *Lectures on Pneumatology and Ethics*, 1758-9, Edinburgh University Library Dc 5. 61-2.
- 12) Thomas Reid, Paul Wood (ed.), *Thomas Reid on the Animate Creation*, Edinburgh University Press, Edinburgh, 1995.
- 13) Gerard, *op. cit.*, Dc 5. 61-2.
- 14) Gerard, *The Plan of Education in the Marischal College and University of Aberdeen*, p. 25.
- 15) Thomas Reid, *op. cit.*, p. 90.
- 16) *Ibid.*, p. 90.
- 17) Howell, *op. cit.*, pp. 398-9.
- 18) Barbara Shapiro, *Probability and Certainty in Seventeenth-century England : A Study of the Relationships between Natural Science, Religion, History, Law, and Literature*, Princeton University Press, Princeton, N. J., 1983.
- 19) Thomas Reid, *op. cit.*, p. 35.
- 20) *Ibid.*, p. 35.
- 21) *Ibid.*, p. 65.
- 22) *Ibid.*, pp. 36-7.
- 23) *Ibid.*, p. 65.
- 24) *Ibid.*, p. 39.
- 25) *Ibid.*, p. 47.
- 26) “all our reasoning in mathematics are built upon reasonings of this kind.” (*Ibid.*, p. 49)
- 27) *Ibid.*, p. 50.
- 28) *Ibid.*, p. 77.
- 29) *Ibid.*, p. 77.
- 30) *Ibid.*, p. 60.
- 31) *Ibid.*, p. 60.
- 32) *Ibid.*, p. 71.

33) *Ibid.*, p. 72.

Ethics.

34) *Ibid.*, pp. 75-6.

(Graduate School of Economics, Nagoya

35) Howell, *op. cit.*, pp. 426-7.

University)

36) Gerard, *Lectures on Pneumatology and*