

Mandeville's market seen through the 18th century coffee-house culture

Satoko Nakano **
Meiji Gakuin University
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****** Department of Economics, Meiji Gakuin University, 1-2-37, Shirokanedai, Minato-ku, Tokyo 108-8636, Japan.

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This paper partly relates to the conference theme, 'The Practices of Economists in the Past and Today', in that it considers the role of coffee-house culture of the 18th century in London in shaping Mandeville's economic insight into the market interactions. The satirical and poetic style of Mandeville's writings stems from the journalism and atheism that pervade the coffee houses in London, where not only writers and philosophers but also businessmen and traders stayed and communicated each other. Although the role of public space such as coffee houses for the development of Enlightenment has been noted by various historians and the place of Mandeville in the Enlightenment thought has been highly appraised, the role and implication of coffee-house culture in Mandeville's economic analysis has not necessarily been made clear.

Mandeville's economic analysis has two seemingly contradicting aspects: on one hand, economic liberalism, on the other hand, interventionism. These inconsistent interpretations have been solved to some extent by using the conception of evolution of legal institutions in society, as is seen in Hayek's spontaneous orders. However, this interpretation is biased toward the natural law tradition seen in Hume and Smith. Mandeville's thought can be, religiously and philosophically, distinguished from this Scottish tradition. Mandeville has a unique atomistic vision, Epicurean atomism, —a construction of order through cognitive interactions in the skeptical tradition followed since P. Gassendi and P. Bayle and in its relation to British Empiricism advocated by J. Locke, G. Berkeley, and D. Hume, which is discussed in my independent paper, "Mandeville's Skepticism Seen in His Probabilistic View for the Market" presented in 2007 HES annual conference.

This cognitive discussion can be comprehensible as an economic insight into market interactions developed in coffee-houses, where traders are prompted to their economic activities under uncertainty, receiving and casting various information that include deceiving ones. These processes finances trading, expands the market and ultimately enables the development of the division of labor in the society as an unintended result. Parts of explanations of the process share some behavioral descriptions with those of the behavioral economics and neural economics of the present day. This mechanism can be contrasted with the establishment of rules of justice in a moral space of a civil society. Smith based economics on this moral space and did not include Mandeville's cognitive processes in his economic system. Mandeville's contradictory characteristic involving both the liberalistic and intervening aspects becomes comprehensible by elucidating Mandeville's psychological philosophy as a vivid descriptive device for the course of things in coffee-house culture.

1. Introduction

This paper partly relates to the conference theme, 'The Practices of Economists in the Past and Today', in that it considers the role of coffee-house culture of the 18th century in London in shaping Mandeville's economic insight into the market interactions. Coffee-Houses near the Exchange Alley in London in the early 18th century played a part of the stock market when new companies were being established. Brokers called stockjobbers intermediated between sellers and buyers and everyone can freely participate in the market and collect information in Coffee Houses¹. Mandeville wrote essays and books within these environments. In order to have full understanding of the implication of Mandeville's thesis, "private vices, public benefits" in *The Fable of Bees*², which aspect of the market phenomenon Mandeville discussed, is crucial and the coffee-house culture is the key for the aspect.

In the early 18th century, Coffee Houses near the Exchange Alley were beginning to function as a financial market that facilitates investment to the various industries of the British Economy and at the same time, the financial market easily lead to bubbles and collapse. Though this brought about the increase of wealth, people are at the same time bewildered at the changes of manners and morality in the economic world of the time. Steel and Addison, wits in the coffee-house culture, described the economy metaphorically as a foundationless castle supported by illusions and they, in this new situation, tried to present how to behave in proper manners in their journals, *Tatler* and *Spectator*. It is known that Mandeville published *Female Tatler*, opposing Steel's idea. The opposition seemed to be journalistic and the meaning of it has been discussed in terms of the social reform (Horne(1978)) of the morality and the political opposition between Tory and Whig (Goldsmith (1985)), with the background of the broad context of civic humanism indicated by Pocock (1975) and its relation to the economics as the Wealth and Virtue problem (Hont and Ignatieff (1983)). Though Mandeville seemed to be a licentious satirist amusing and ridiculing Steele, a serious economic insight is hidden in the context with another philosophical background.

A shared impression in those journals that something unstable and foundationless navigated people in the economy is one of the sources that shook the existing moral attitudes. This impression, for example, came from the observation in Coffee Houses, where stockjobbers exchange various information including deceiving one and buyers

¹ As to the coffee-house culture in general, see Lillywhite (1963), Cowan (2005), Ellis, Aytoun (1956), Ellis, Markman (2004), Kobayashi (1985)

² *The Fable of the Bees: or, Private Vices, Publick Benefits* by Bernard Mandeville with a Commentary Critical, Historical, and Explanatory by F. B. Kaye, vol.1. and vol.2, Oxford at the Clarendon Press, 1924. This paper is based on Kaye's edition. The history of this text is as follows: The first version was published anonymously. *The Grumbling Hive: or, Knaves Turn'd Honest*, London, Sam Ballard, A. Baldwin, 1705. *The Fable of the Bees: or, Private Vices, Public Benefits*, London, J. Roberts, 1714; 2nd edn., Edmund Parker, 1723; 3rd edn., J. Tonson, 1724; 4th edn., 1725; 5th edn., 1728; 6th edn., 1732. The version presented in 1714 was also published anonymously with the inclusion of the following chapters: "The Preface," "The Grumbling Hive," "The Introduction," "An Enquiry into the Origin of Moral Virtue," and "Remarks," which were divided into 20 sections. However, *The Fable* gained recognition and criticism following the publication of the 2nd edition in 1723. According to Kaye, while limited references were made to *The Fable* prior to 1723, they increased remarkably thereafter. See, Kaye (1924) pp.418-453. The version published in 1723 differed from the former due to the inclusion of remarks, "An Essay on Charity and Charity schools," "A Search into the Nature of Society," and "The Index." The insistence on the denial of the existence of Charity schools might have stirred the reader's antipathy. *The Fable of the Bees*, Part 2, "By the Author of the First," London, J. Roberts, 1729; 1730; 2nd edn., 1733. Dialogues were added for the first time in Part 2.

are tempted and deceived. Mandeville intentionally used expressions that rouse antagonistic responses among civic humanistic or pious Christian people. The critical attitude toward the foundationless economy reached its peak around 1720, when the South Sea Bubbles collapsed and at the same time, Mandeville became notorious and criticized by contemporaries for his 1723's version of *The Fable of Bees*. This bubble crisis promoted Britain to arrange some institutions to support fair economic trades, such as accounting systems preventing deceptive reports of companies' activities. As these institutions were recognized as an important basis for the market, the arrangement of them was thought to be in the hands of impartial legislator independent from market functions.

From the early 18th century to the latter part of the century, the main stream of economic thought progressed toward Smith's economic liberalism, which conceptualized individual as seeking self-interest in the market and as supporting the civic morality within institutions of rules of justice. Under the system of natural liberty, it is implicitly supposed for individuals to acquire the necessary knowledge if they are free from arbitrary interventions and free to seek their interests. Compared with this stream of thought, Mandeville's thought has been appraised as premature in that market is not conceptualized as autonomous system and that therefore there still remain mercantile thinking in his thought³. However, this assessment is biased toward the way of thinking of Smith's economics and the civic humanistic and natural law tradition under which the economics was nurtured.

Although the satirical and poetic style of Mandeville's writings appears to lie, to some extent, outside the realm of formal economics, it has nonetheless contributed to the evolution of some significant conceptions in modern economics. For example, the description of the concept of the division of labor in society in *The Fable* is widely recognized as a significant precursor to that of A. Smith. In another area of economic thought, J. M. Keynes acknowledged Mandeville's conceptions regarding effective demand as influential in the formation of the *General Theory*.⁴ Though reflecting connection with Keynes, Mandeville's insight into how to acquire knowledge under uncertainty has not been absorbed into the main stream of economic analysis and dismissed in the former philosophical context of 17th century.

The object of this paper is to make the hidden point clear by remaking the function of Coffee Houses as a device to manage uncertainty. Though Mandeville's description seems discursive and it cannot be appraised as what we call economic theory, it has a definite structure and logic. Mandeville remarked an aspect of Coffee Houses as financial market that manages risk and uncertainty, in Mandeville's word, ignorance. The way how traders get knowledge or information under uncertainty had been treated by Mandeville. This paper will indicate that Mandeville saw the economic expansion as being driven from localized cognitive adjustments of traders who interact in such a market as Coffee Houses. These cognitive interactions finances trading, expands the market and ultimately enables the development of the division of labor in the society as an unintended result. That is, interchanging various information in localized interaction, traders somehow combine and interpret information and have in mind indicators for their decision of trading. As a result, even if the indicators are psychological,

³ As to the appraisal see the section 6 "The implications toward the economic thought after Mandeville" of this paper below.

⁴ See Keynes (1973) pp.359-362. Fuz (1952), in an early study, appraised Mandeville from this perspective.

subjective and even deceptive, they can construct an equivalence of confidence and trust that enable the economy to coordinate the division of labor as globalized effects. Mandeville realized the reliability of the indicator as contingent because it deals with ignorance and uncertainty and therefore confidence can be fragile. He suggested that we cannot expect from them the same truth of divine knowledge. This is the reason why he used the similar expression as wits used in a contemptible sense, reminding foundationless castle and fickleness of fashion or mode. However, this economic insight belongs not only to the context of the journals but also to the philosophical context up to the 17th century.

In order to elucidate Mandeville's supporting logic, his philosophical background and his opposition to Berkeley in this relation should be mentioned briefly. The logic was derived from his particular religious and philosophical background, Epicurean atomism. Mandeville's background of thought is basically found in the philosophical context in 17th century, Epicurean atomism in the skeptical tradition followed since P. Gassendi and P. Bayle and in its relation to British Empiricism advocated by J. Locke, G. Berkeley, and D. Hume, which is discussed in my independent paper, "Mandeville's Skepticism Seen in His Probabilistic View for the Market" presented in 2007 HES annual conference.

Gassendi introduced an atomistic approach of Epicure into the modern scientific approach. Epicurus advocated atomism during the ancient Greek period. His atomism has been interpreted as atheistic in that the movement of atoms leads to the creation of order by chance, which appears to exclude providence and God's plans⁵. This Epicurean atomism is revived by P. Gassendi,⁶ who contributes toward the development of modern scientific atomism. Gassendi's revival progressed toward Britain through various routes.⁷ One of them led to the development of natural science at Royal Society in Britain, including Boyle's corpuscular approach. The theory of knowledge presented by Locke reflects the influences exerted by Gassendi and appears to be directly influenced by Boyle.⁸ Furthermore, Epicurean revival gained significance not only in natural science but also in various literary forms including Pope

⁵ The atomistic doctrines of Epicurus are in keeping with Democritus. Lucretius, the Roman exponent of the atomic system, reveals the Epicurean doctrine in his work *De Rerum Natura. The Nature of Universe*, Book II states, "In this connection, there is another fact that I want you to grasp. When the atoms are traveling straight down through empty space by their own weight, at quite indeterminate times and places, they swerve ever so little from their course, just so much that you can call it a change of direction. If it were not for this swerve, everything would fall downwards like raindrops through the abyss of space. No collision would take place, and no impact of an atom on atom would be created." With regard to the introductory explanation for the Atomists in Greek, see Parker (1967). There are various interpretations on whether "Epicure believes that there are random events at the atomic level that kept all atomic motions from being thoroughly necessitated." See Mitsis (1988) p.153. The relation between Epicure's atomism and the 17th and 18th century atheism is explained in Berman (1988) p.28. n33.

⁶ Popkin (1960) termed the constructive approach of skepticism adopted by Gassendi as "constructive skepticism." As indicated by R. Popkin in a series of his study on the relation between Pyrrhonism and modern philosophy, skepticism plays a positive role in constructing the scientific approach. Abandoning the possibility of recognizing the essential truth and realities of nature, a consistent explanation on the appearances of nature has been explored in natural science. This line of thought leads to the modern scientific approach, which consists of both providing hypothesis and its verification based on empirical data.

⁷ The mechanical philosophies of Descartes and Gassendi gained significance during the Restoration period through the New Castle circle, the leading figures of which were Hobbes, Charles Cavendish, William Cavendish, and so on. Walter Charleton, who provides a translation and expansion of the long section on physics presented by Gassendi in 1654, is significant in the infusion of Gassendi's atomism into England. The development of atomism in the field of physics is elucidated in Kargon (1966).

⁸ With regard to this, see Norton (1981) and Alexander (1974).

and Defoe, particularly in Britain, from the 1640s to the early 18th century. Kroll (1991) characterizes this period as the Neo-Epicurean Revival, distinguishing it from the wider concept of European enlightenment. In particular, contingency of knowledge, which is the basis of the literary form, reflects the ethical and political background of this period. Mandeville's thesis can be better understood if we see him as applying this contingency of knowledge in Epicurean atomistic vision toward the economic phenomena such as seen through Coffee Houses.

In fact, Mandeville's position among the freethinkers in the coffee-house culture can be regarded as that of an Epicurean atheist. The opposition between Berkeley and Mandeville developed through their *Alciphron* and *A Letter to Dion* can be appraised as the opposition between Berkeley's cognitive theory on the revealed religion and Mandeville's one on Epicurean atheist. Berkeley can fully understand the meaning of Mandeville's economic insight based on contingency of knowledge and how it is dangerous to his religious philosophy and to the future of Britain economy because it leaves a room for the arbitrary control by human strategy to influence other's cognition. These details have to be discussed in some independent papers.

The following can be added as a summary for the philosophical background. Mandeville's thesis provides his original epistemological criticism in moral sciences to the effect that realism, which presupposes the existence of moral values, cannot be approved as a basis for the explanation of what navigates human actions in the moral and economic world. In this, Mandeville based his discussion on the Molyneux's problem that is Locke's and Berkeley's continuing interests to inquire whether human visual cognition toward figure or depth is innate or not. Mandeville insists that moral values are formed by cognitive learning through social interactions as depth is learned through repeatedly combined tactile sense and visual sense. As Mandeville permits the learning process can be arbitrary free including deception, he reveals the probabilistic nature of the learning process by chance, which is extremely radical and cannot be accepted within the religious and deistic discussions of the time⁹.

Against the usual understanding of the history of economic thought, the division of labor in a society had been, at first, discussed, when financial markets were becoming active in the coffee-house culture, in relation to artificial human interactions rather than the natural course of things. The implication toward the modern economics is that Mandeville can be seen as investigating the similar type of psychological problem as Keynes discussed, in which the role of government has some weight. They both remarked psychological aspects of trader's expectation in financial markets. Mandeville saw emerging stock markets in the coffee-house culture in the 18th century, where he found a possibility that traders can coordinate to enhance their level of activity under uncertainty. Keynes saw the systematized stock market in the 20th century and he focused fragility that will occur when a state of market is subject to a change under

⁹ Mandeville attempts to construct alternative explanations for the orderliness of society to theism, which cannot necessarily be either based on blind chance or reduced to the Darwinian evolutionary approach. Darwin's theory of evolution is the alternative explanation to theism in the 19th century. Although Shopenhauer claims that Kant is the only exception that does not resort to either blind chance or God, Berman (1988), appraising his claim as doubtful, insists that evolutionary theories existed prior to Kant, for example, the evolutionary theories of Hume and Baron d'Holbach. Hayek appraises Mandeville and Hume as the forerunners of evolutionary approach such as the spontaneous order. However, it is appropriate to interpret that contingency in the formation of social orders having been an existing theme in the 18th century, there were various alternatives preceding the evolutionary approach and that they differed in their explanations from Darwin's rather than their precursors.

uncertainty. It was Smith who systematized economics by converting Mandeville's insight into a different perspective with a normative view, in which the role of government has been minimized. Both government discretion and economic liberalism in the modern economics can be reappraised in these perspectives.

2. The economy and wits in Coffee Houses

From the late 17th century to the early 18th century, coffee-houses in London provided gathering space where any man could drink a cup of coffee for a penny, read newspapers and communicate together. At that time when the postal system was not well organized and journalism was not enough developed, the coffee-houses played a role of a communication center for news and information. Furthermore, various writers for literatures, wits and political parties gathered in some particular coffee-houses, which contributed the formation of public opinion in the enlightenment period. For example, Richard Steel, Jonathan Swift, Joseph Addison and Alexander Pope gathered in Button's Coffee-house in Russell street, Covent Garden. In addition, some coffee-houses located in the Exchange Alley in London functioned as a financial market, where merchants and businessmen, in particular called stockjobbers and underwriters, intermediated between buyers and sellers of stocks and contracted insurance. Coffee-houses can be interpreted as melting pots in which various people and information interact.

In the No.1 of *The Spectator* published in 1711, the story teller created by Steel and Addison describes his daily life in the following. He, a Merchant in *Exchange Alley* sometimes as *Stock-Jobbers*, often comes up in various Coffee-Houses, *Will's*, *St. James's*, *Grecian*, *Cocoa-Tree*, *Jonathan's*, listens to people's conversations and observes as a spectator, which are the sources of information of the journal.

"I have passed my latter Years in this City, where I am frequently seen in most Public Places, tho' there are not above half a dozen of my select Friends that know me; of whom my next Paper shall give a more particular Account. There is no place of general Resort wherein I do not often make my appearance; sometimes I am seen thrusting my Head into a Round of Politicians at *Will's*, and listening with great Attention to the Narratives that are made in those little Circular Audiences. Sometimes I smook a Pipe at *Child's*; and whilst I seen attentive to nothing but the *Post-Man*, over-hear the Conversation of every Table in the Room. I appear on Sunday nights at *St. James's* Coffee-House, and sometimes join the little Committee of Politicks in the Inner Room, as one who comes there to hear and improve. My face is likewise very well known at the *Grecian*, the *Cocoa-Tree*, and in the Theatres both of *Drury-Lane* and the *Hay-Market*. I have been taken for a Merchant upon the *Exchange* for above these ten Years, and sometimes pass for a Jew in the Assembly of *Stock-Jobbers* at *Jonathan's*. In short, where-ever I see a Cluster of People I always mix with them, though I never open my Lip but in my own Club." (Addison and Steel (1957) vol.1, p.4.)

Although economics is not yet systematized at this time, John Houghton, one of the first financial journalists described how Coffee Houses work as a stock market in his *Collection for Improvement of Husbandry and Trade*. Using his description, Dale

(2004) explains how the Moneyed Man goes among the brokers at Jonathan's or Garaway's Coffee House. The Moneyed Man not only collected information directly from brokers but also from weekly stock prices published by Houghton. Houghton states that people at that time "studied hard to dispose of their money, that they might command it whensoever they had occasion, which they found they could more easily do in Joint-Stock, than in laying out the same in Lands, Houses or Commodities, these [shares] being shifted from Hand to Hand." (Houghton (1694) June 15) Interpreting from the description by Houghton, Dale appraises the way of Stock-Jobbing as 'matching', 'each share purchase was matched against a corresponding sale, the role of the broker being to match individual buyers against individual sellers.' (Dale (2004) P.26) He explains, by the early 1700s, the style of this stock market develops a hybrid with brokers increasingly acting as principals and trading on their own account.

The remarkable point is that the transactions at Coffee Houses include five types of sophisticated financial trading, 'spot' transactions for immediate delivery of shares; 'time bargains or forward' for future delivery and settlement; 'refusals' or call options which allowed the purchaser to buy or refuse to buy stock at a stated price at some future date in return for payment of a premium; 'put' options which allowed the purchaser to sell stock in a similar manner; and simultaneous buy/sell or sell/buy transactions which today we should call repurchase agreements or 'repos'. (Dale (2004) P.28) According as transactions become complicated, the process for managing information become strategic for traders.

Coffee Houses are full of misinformation and false information because traders tried to earn by influencing and controlling market prices. Defoe described making false report in his *Anatomy of Exchange Alley* written in 1719.

"There are those who tell us that letters have been ordered, by private management, to be written from the East Indies, with an account of the loss of ships which have been arrived there, and the arrival of ships lost; war with the Great Mogul, when they have been in perfect tranquility; and of peace with the Great Mogul, when he was come down against the factory of Bengal with one hundred thousand men--- just as it was thought proper to calculate those rumors for the raising and falling of the stock, and when it was for this purpose to buy chap, or to sell dear." (Defoe (1719) in Fransis (2009) [1849] p.139)

Defoe had rather venomous appraisal toward Stock Jobbing, reflecting that he had gone through undischarged bankrupt. However, the stock market around Exchange Alley and Coffee Houses in the early eighteenth century is different from today's securities markets. On the one hand, today's market are secured by "a official and self-regulation designed to protect investors by ensuring the solvency of intermediaries, price transparency, fair dealing and the suppression of insider dealing." (Dale (2004) P.35) On the other hand, the stock market in Coffee Houses lacked those safeguards. Institutional safeguards from ordinary investment risks have been historically arranged since then. Admitting the difference between the stock market of past and today, Dale remarked that in spite of these arrangements, there remains the phenomenon of bubbles even today. He tried to find the factors causing bubbles in the past history of bubbles, such as tulip bubble and South Sea bubble by surveying the literatures of the time.

Murphy (2009), investigating the origin of English financial market, remarks the functions of information circulation in the Coffee Houses and pays attention to the verbally transmitted information. How verbal information communicated in Coffee Houses works in the stock markets can be a hint for better understanding of financial markets.

“The information circulating in the Royal Exchange was supplemented by that generated in the network of coffee houses and taverns located in its immediate vicinity. The most important information was, however, communicated verbally. Indeed, the debate encouraged by the atmosphere of the coffee houses was an important part of the assessment of the market value. It may also be argued that the information to be found in these places was sometimes more useful than that available through official channels. It has been suggested that coffee houses were places where new investors could learn about the market from experienced brokers and stock –jobbers.” (Murphy (2009) p. 119-120)

However, in these historical investigations of stock markets, Mandeville is not referred. Because Mandeville did not describe any detail of procedures of stock dealing as Houghton and Defoe did. However, Mandeville was interested some psychological aspects of the dealings in Coffee Houses from his particular philosophical context. The context is embedded in the satirical and poetic style of Mandeville’s writings, which stems from the journalism that pervade the coffee houses in London. In particular, the journal, *Tatler*, published by R. Steel is Mandeville’s target as he published *Female Tatler* by imitating *Tatler*. Steel and Addison wrote their articles and essays in *Tatler*, afterwards in *Spectator*, so as to reveal to their audience the concrete way to behave, in other words, the proper manner or code of the society. The manner is not necessarily bound by the court but required in the newly expanding economic society.

Mandeville is consistently straggling with the idea that there is a stable standard for the morality and manners of the society and the idea that those standards can be determined by the reason. He tried to reveal the hypocrisy of those who states that he can rationally judge the standard. Mandeville’s objection to this idea is not a superficial one only to ridicule Steel’s stance but a consistent one rooted in his philosophical and religious stance. Mandeville’s basic motif presupposes that *Pulchrum & Honestum* (beauty and truth) are not stable. The background of this idea is suggested in philosophical and religious context available up to 18th century, a skeptical tradition that is suspicious about the necessary connection between human intension and its result as a whole. For example, in Erasmus’s idea that good is brought about from bad, Epicurean way of thinking that the order is determined by chance, and Bayle’s probabilistic providence. Though Mandeville did not develop formal presentation, his motif is related to one of unintended results. Even though he had a deep insight into the working of economy, he used a satirical and metaphorical expression being conscious of the contemporary opinion about the economic world and atmosphere in the Exchange Alley, which appeared in those journals and essays written by the people of coffee house culture. The representative attitude or contemporary opinion seen in Steel and Addison toward the increasing economic activities of the time

is to situate economic activities on a social foundation shared in their civic humanistic ideal.

Against their ideal, the opinion of the time, particularly presented by Steel, is that economic activity displayed in Coffee Houses is like buying Lottery, loose or win of which depend on chance and no rules, as in the following. Caprice and Groundless Imaginary Motive are seen as a driving force of the economy and it is indicated that those would lead to Bubbles of Economy even before the crash of the South Sea Bubble.

“When a Man has a mind to venture his Money in a Lottery, every Figure of it appears equally alluring, and as likely to succeed as any of its fellows. They all of them have the same Pretensions to good Luck, stand upon the same foot of Competition, and no manner of Reason can be given why a Man should prefer one to the other before the Lottery is drawn. In this Case therefore Caprice very often acts in the Place of Reason, and forms to itself some Groundless Imaginary Motive, where real and substantial ones are wanting.” (Addison and Steel (1957) vol.3 p249, no.191)

There is an article on Bubble economy in *Spectator*, written also by Steel, in August 1712, which allegorically describe the economy as an imaginary palace dominated and controlled by vanity through flattery, affectation and fashion. The visitors to the palace of vanity are self-conceited through these illusional processes and, as a result, the economic trading is raised above the level of plain-dealing. However, once some shock broke the credit of the economy, visitors realize that the palace is in the air without its foundation. The following is the description of the Palace of Vanity.

“The Foundation hardly seemed a Foundation, but a Set of curling Clouds, which it stood upon by magical Contrivance. The Top of the Building being rounded, bore so far the Resemblance of a Bubble. The Condition of Mankind, which is thus managed by the Breath of Opinion, deluded by Errour, fired by Self-Conceit, and given up to be trained in all the Courses of Vanity, ‘till Scorn or Poverty come upon us. Folly and Broken Credit were seen in the House before they entered, Trouble, Shame, Infamy, Scorn and Poverty brought up the Rear. When they had touched the Threshold, it was a strange Shock to them to find that the Delusion of Errour was gone, and they plainly discerned the Building to hang a little up in the Air without any real Foundation. At first we saw nothing but a desperate Leap remained for us, and I a thousand times blamed my unmeaning Curiosity that had brought me into so much Danger. But as they began to sink lower in their own Minds, methought the Palace sunk along with us, ‘till they were arrived at the due Point of Esteem which they ought to have for themselves; then the Part of the Building in which they stood touched the Earth. ” (Addison and Steel (1957) vol. 3 p420, no.460)

In this article, it is presumed that there is a kind of fundamentals, on which economic activity can be substantially based and departing from which lead to bubbles. In terms of this perspective, misinformation and deceiving information exchanged in coffee houses are seen as a source of confusion that makes the economy for bubbles and

ultimate collapse. Though it was in the 1720 that South Sea Bubbles collapsed, we could infer that people had already worried about the fickleness or caprice seen in investment of money into some companies and had recognized those activities as being similar to buying lottery, therefore groundless.

It is inferred that the vocabulary of the above description of imaginary palace of vanity partly corresponds to Mandeville's in *The Grumbling Hive* published in 1705, for example,

'And odious Price a Million more:
Envy itself, and Vanity,
Were Ministers of Industry;
Their darling Folly, Fickleness,
In Diet, Furniture and Dress
That strange ridic'lous Vice, was made
The very Wheel tha tun'd the Trade' (Mandeville(1924) vol.1, p.25)

Vanity through fickleness of tastes for consumption is here described as a driving force of the economy. When Mandeville added remarks and essays to the poem in 1714 and 1723 in *The Fable of Bees*, the similar words used by Steel, such as 'flattery', 'deceit', 'mode' and 'fashion', are adopted in Mandeville's framework. It is obvious that Mandeville made use of Steel's style for his rhetorical purpose, as is also inferred from the fact that Mandeville imitated *Tatler* by Steel and wrote essays in *Female Tatler*, which attracted the audience around the coffee houses of wits. Their relation of writing stance can be analyzed from some political and molar attitudes, such as Whig and Tory or the reformation of manners in that period. However, Mandeville was serious in criticizing Steel's instructions of manners based on some particular conception of politeness and sophistication shared by contemporary audience. In the essay, 'An Enquiry into the Origin of Moral Virtue', added in 1714, Mandeville states, "Sir Richard Steele, in the usual Elegance of his easy Style, dwell on the Praises of his sublime Species, and with all the Embellishments of Rhetoric sets forth the Excellency of Human Nature, it is impossible not to be charm'd with his happy Turns of Thought, and the Politeness of His Expressions. But tho' I have been often moved by the Force of his Eloquence, and ready to swallow the ingenious Sophistry with Pleasure, yet I could never be so serious, but reflecting on his artful Encomiums I thought on the Tricks made use of by the Women that would teach Children to be mannerly." (Mandeville(1924) vol.1, P.53)

Mandeville and wits are interested in the social influence and significance of the dealings and trades that occur around them in the coffee houses, which brought about the wealth through economic expansions in Britain. Without conceptual framework of economics, they saw the phenomena from the perspective of moral problem, the virtue problem, that is, what is and should be the motivation and navigation of human action in the expanding economic world. Steel and Addison tried to find the foundation in the proper manner and code of a society based on the civic virtue. In their perspective, therefore, in the opinion of the time, Mandeville seemed to ridicule and amuse their perspective intentionally using the rhetoric that emphasizes the foundationless and fortuitous nature of economic activities. However, Mandeville's essence cannot be seen in the superficial opposition to those wits.

3. Mandeville and Berkeley in Coffee Houses

When Mandeville was characterized as atheist, freethinker and minute philosopher by Berkeley, Berkeley was critical toward Mandeville on a specific point relating to his empirical philosophy and its relation to religious point of view, as discussed in the independent paper of mine discussed in the introduction. Berkeley criticized Mandeville in *Alciphron* published later and his critic has been interpreted to be directed toward Mandeville in that he recommends human greediness. In fact, he has an aspect of Epicurean hedonism and the moneyed man is generally averted and criticized. Therefore, it is not totally irrelevant to criticize Mandeville for his recommendation of greediness. However, is that the only opposition between Mandeville and Berkeley?

Mandeville's logic is underpinned by the philosophical and religious context, which belongs to Gassendi's and Bayle's skeptical tradition in the 17th century. Mandeville tried to apply their cognitive critic towards the economic phenomenon in the early 18th century problem. Mandeville's application of the skeptical philosophy to the new problem provided destructive forces in Berkeley's conceptual basis, in particular, in relation to the revealed religion that considers that God informs us of the way of behavior. The opposition between Berkeley and Mandeville is deep rooted and subtle surrounded by the coffee-house wits. In this section, how Berkeley and Mandeville opposed each other is discussed in this section through the Coffee House culture.

Berkeley has been an Irish philosopher since his major works on the philosophy was published in 1709 and 1710. *An Essay towards a New Theory of Vision* (1709) *A Treatise Concerning the Principles of Human Knowledge*, Part I (1710), which are appraised partly as the extension of Locke's Empirical philosophy. Berkeley's famous principle is *esse is percipi*, to be is to be perceived. Berkeley objected materialism. He held that ordinary objects are only collections of ideas, which are mind-dependent. Berkeley was an immaterialist and held that there are no material substances. As there is Bayle's cognitive criticism in their basic philosophy both in Mandeville and in Berkeley, they are seemingly quite near in their stance toward skepticism. In fact, the correspondence between Berkeley and Percival reveals that when Berkeley's books were published, readers reckoned Berkeley as a skeptic and his idealistic philosophy as incredible.¹⁰

Berkeley visited London in January, 1713 and stayed until the fall of the year¹¹. Berkeley had a good company with Jonathan Swift, his countryman and old friend, together with Steel, Addison, Pope and Arbuthnot, which made Berkeley known in the Coffee Houses companies. At the same time, Berkeley became acquainted with free-thinkers, for example, A. Collins, and became conscious of their theory as a threat to the Christianity. As Berkeley tried to make his new philosophy compatible with Christianity based on the revealed religion, he did not presuppose any existence of material substance in the world and based his philosophy exclusively on the human perceptions. However, against his intension to refute skeptical philosophy, he was

¹⁰ A reader states "Erasmus was not the worse thought of for writing in praise of folly, but that you are not gone so far as a gentleman in town who asserts not only that there is no such thing as matter but that we have no being at all." Rand (1914) p.80. Erasmus is a Dutch Renaissance humanist and a Catholic priest and theologian of Rotterdam. Mandeville, who is also from Rotterdam, is said to be influenced by Erasmus.

¹¹ As to Berkeley's stay in London is informed in Fraser (1994) p.xxxvii-xl.

interpreted as near to Skeptic. While he was in London between March and September 1713, he wrote several essays in the *Guardian* in order to refute those free-thinkers.

Mandeville can be one of the Berkeley's targets as is inferred from his following essay. *Guardian* No.39, April 25 1713 tells a story that one man, in his imagination, went to the *Grecian* coffee-house to find a comprehensive knowledge of all things in an eminent free-thinker and realized that the knowledge is narrow and unsatisfactory. The essay is on the imaginary Castle of Prejudice, Vanity and Passions, which reminds us of the Palace of Vanity by Steel. The Castle is a metaphor of Free-thinking that assumes their theory as if not contradicting with church.

"On the 11th day of October, in the year 1712, having left my body locked up safe in my study, I repaired to the *Grecian* coffee-house, where entering into the Pineal Gland of a Certain eminent Free-thinker, I made directly to the highest part of it, which is the seat of the Understanding, expecting to find there a comprehensive knowledge of all things human and divine; but, to my small astonishment, I found the place narrower than ordinary insomuch that there was not any room for a miracle prophecy, or separate spirit." (Berkeley (1994) vol.3, p.150-151)

Berkeley compares the grotesque castle with the calm and peaceful church and considers that the freethinking is a false system pretending the latter in the following description.

"I saw a great castle with a fortification cast round it, and a tower adjoining to it that through the windows appeared to be filled with racks and halters. Beneath the castle I could discern vast dungeons, and all about it lay scattered the bones of men. It seemed to be garrisoned by certain men in black, of gigantic size, and most terrible forms. But, as I drew near, the terror of the appearance vanished; and the castle I found to be only a church, whose steeple with its clock and bell-ropes was mistaken for a tower filled with racks and halters. The terrible Giants I Black shrunk in to a few innocent clergy men. The dungeons were tuned into vaults designed only for the habitation of the dead; and the fortification proved to be a church yard, with some scattered bones in it, and a plain stone wall round it." (Berkeley (1994) vol.3, p. 151)

Though the free-thinker who used the concept of "vanity, prejudice, and passions" among Berkeley's targets can be Mandeville, Berkeley does not mention the name of Mandeville in the essay. However, as seen the following quotation, Berkeley allures to the Epicurean System, which considers that the world is made from the atomic movement formed by chance. Furthermore, Berkeley suggested that the theory of Vanity is related to Locke's type of empirical ideas and that the theory is transformed by Free-thinkers into various heathen notions such as Epicurean and Gassendi.

The discussion that stored ideas are arranged and combined by chance is developed by Mandeville in volume 2 of *the Fable*.

"The Brain of a Child, newly born, is *Charte Blance*; and, as you have hinted very justly, we have no Ideas, which we are not obliged for to our Senses. I make no question, but that in this Rummaging of the Spirits through the Brain, in hunting after,

joining, separating, changing, and compounding of Ideas with inconceivable Swiftness, under the Superintendency of the Soul, the Action of Thinking consists.” ((Mandeville(1924) vol.2, p.168)

Because this part is written 16 years later, the phrases cannot be the direct target of Berkeley's essay in 1713. However, this part clearly indicates Mandeville's original philosophical stance. The first sentence that refers to *Charte Blanche* is Locke's empirical philosophy. The second sentence, 'we have no Ideas, which we are not obliged for to our Senses', can be derived from Berkeley's *idealism and immaterialism*. The third sentence is Mandeville's philosophy that brain as corporeal organ changes and compounds ideas under supervision of the soul. This philosophy is a derivation from Gassendi's philosophy and Epicurean tent that thinking can be processed through corporeal system and its process can be composed of atomistic constitution and sometimes ordered by chance. This way of thinking cannot be hold by Berkeley, who conceives that perception is revealed through god and based on divine languages. The following part from Berkeley's essay suggests his antagonistic interpretation of Mandeville's stance .

Away Posted Vanity, and I after her, to the storehouse of ideas; where I beheld a great number of lifeless notion confusedly thrown together, but upon the approach of Vanity they began to crawl. Here were to be seen among other odd things, sleeping deities, corporeal spirits, and worlds formed by chance; with an endless variety of heathen notions, the most irregular and grotesque imaginable. And with these were jumbled several of Christian extraction; but such was the dress and light they were put in, and their features were so distorted, that they looked little better than heathens.” (Berkeley (1994) vol.3, p.151-152)

Though it is inferred that Berkeley targets here generally Epicurean, Gassendi or nominalists including Hobbes, Bayle and Mandeville, one possibility is that Mandeville's later discussion on thinking process was verbally transmitted through Coffee-Houses conversations while Berkeley was in London. It was not until Berkeley published *Alciphron: or the Minute Philosopher* in 1732 that Berkeley starts to attack free-thinkers in earnest.

From 1713 to 1732, Mandeville enlarged *The Fable of Bees* three times, in 1714 1723 and 1729. Through this extension, Mandeville's thought had been dispersed to the public out of the Coffee Houses. However, it is sometimes remarked that it was from 1723 edition that Mandevill's *Fable* became provocative and object of various criticism. It is inferred that one of the reasons of this can be the crash of the South Sea Bubbles that occurred in the spring of 1720, because Mandeville's thought had been connected with bubble economy without foundation expressed in Steel's essay discussed above. Not only those who had loss through the crash but also those who were critical to Robert Walpole's settlement after the crash may have directed their criticism toward what promoted the bubble economy.

Swift wrote a poem, "The Bubble", in 1720 and published anonymously in January 1721.

While some build Castle in the Air,

Directors build 'em in the Seas;
Subscribers plainly see 'em there
For Fools will see as Wise-Men please
(Emmett (2000) vol.3, p.184)

The Castle in the Air is a metaphor used as a bubble economy by Steele and used as freethinking as Berkeley. According to Swift's poem, he described the South Sea company as a castle in the Sea, which was built by the directors of the company. Subscribers of the company appraised the value of the stock in a deceptive way that skillful wise government tempted fools, as Mandeville suggested. In fact, Mandeville was conscious that the metaphor of 'the Castle in the Air' is used as a criticism toward him. He states in "An Essay on Charity, and Charity-Schools" inserted in *The Fable* in 1723, 'What I have said in the Four or Five last Paragraphs, I foresee will with abundance of Scorn be Laugh'd at by many of my Readers, and at best be call'd Building Castles in the Air; but whether that is my Fault or theirs is a Question.'"p.320

Berkeley also was anxious about the future of the Great Britain after the crash. He wrote in 1721, "An Essay Towards Preventing the Ruin of Great Britain," in which Berkeley tried to distinguish the liberty of virtuous man and the licentious liberty of injudicious patrons. While the former is consistent with the duties of a good subject and a good Christian, the latter discredits what they would seem to propagate. Berkeley was critical to the situation: "when money is shifted from hand to hand in such a blind, fortuitous manner that some men shall from nothing in an instant acquire vast estates without the least desert; while others are as suddenly stripped of plentiful fortunes, and left on the parish by their own avarice and credulity.' The distinction anticipates the distinction between the system of natural liberty by Smith and Mandeville's licentious system Smith called.

After the crash, Berkeley planned to establish a mission college, the Bermuda project, and moved to Newport, Rhode Island in America, in order to attain the project. Fraser described the project as 'ideal of Christian civilization, which so moves the heart and touches the imagination in our retrospect of the eighteenth century. Of all who have ever landed on the American shore, none was ever moved by a purer and more self-sacrificing spirit.' (Fraser (1994) vol.1.p.lix) But he went to America only to find the project to be failed because the funds were not forthcoming because Walpole rejected the payment of the fund. After return to London, in 1731, Berkeley criticized Mandeville, Shaftesbury and other freethinkers as the minute philosophers in his *Alciphron*, in 1732.

On the one hand, Mandeville's discussion in *the Fable* and probably in the Coffee Houses was interpreted to promote the bubble economy and the ruin of the Great Britain. On the other hand, institutional foundations of the economy to prevent illegal maneuver and misinformation, for example, accounting system through the third party, has been established after the South Sea Bubbles. In this direction, institutionalization of the Britain economy has proceeded through establishing the governance of the economy. When Smith systematized economics, economics has focused on the analysis of price mechanism that works within some appropriate law institutions, where rational economic behavior as an autonomous individual has been normatively characterized.

When Steele, Swift described the economy as a foundationless castle, they tried to find the moral basis of the society of the time, where there is a collision between wealth

and virtue. Smith's system of economics in the latter half of 18th century is one way for avoiding the collision. Using the phrase of Phillipson (1983) which characterizes Smith's economics and moral philosophy under the tradition of a civic moralist, the pursuit of propriety by Steel and Addison had become "an alternative to the pursuit of virtue, and the voluntary society and the coffee-house had emerged as an alternative to the *polis*." (Phillipson (1983) p.199) However, Mandeville's insight into Coffee Houses is different from an alternative to the *polis*, therefore different from Smith's way of thinking.

The establishment of law institutions is also discussed by Mandeville in *The Fable*. The discussion has been remarked by Hayek as an evolutionary approach in his discussion on the spontaneous order. However, this part for Mandeville is only an excuse for escaping the misconception of his thesis, that he recommended an illegal action. Mandeville rhetorically made use of the foundationless in order to exaggerate the opposition between wealth and virtue. In this literary strategy, Mandeville's main point diverges from Smith's solution and the civic virtue. Mandeville's vice would be navigated to harmless one by the instruction through law institutions, if the bad action is publicly admitted harmful to others. However, his 'vice' is originally conceived not as tamed and introverted self-love. Mandeville's vice conception has an aspect of stirring emotion of others and being influenced by the incitement, which is offensive to the ear whose ideal is directed to Christianity and the civic virtue. Mandeville was quite conscious of his polarized position in the opposite side of their ideal, civic virtue. For Mandeville, Coffee Houses are no way alternative to *polis*.

Mandeville described the process in detail, through which two merchants in a coffee house reach their agreement in their trading contract. Interpreters tried to see this process as haggling and price negotiation. However, the point Mandeville focused would be lost sight of, if his description were interpreted through the eyes of the modern price theory based on rational behaviors. Mandeville's interest in price itself or the price mechanism is too weak throughout *The Fable*. He does not seem to credit an economic prosperity to price information, even if he found the division of labor as a source of the prosperity. On the one hand, market price and natural price analysis was systematized by Smith and they are under the tradition of the natural law, where the fair trade and reasonable price are the result of convention of the society with some proper interactions. In this tradition, reflecting the civic virtue as a moral attitude toward fair trading, individuals are rational according to their self-interests consistent with the rules of justice. On the other hand, what Mandeville saw in economic trading that propagated in Coffee Houses is information and knowledge construction under uncertainty, in his words, under ignorance. He saw trading in Coffee houses as a result of accidental consensus through psychological expectations of each individual sometimes biased and controlled. Even if market price fluctuate according to the conditions of the amount of supply and Mandeville may notice the underlying price mechanism in the level of common sense of his time, he found the crucial market force in the expectation formation, such as made in Coffee Houses as a market place for financial market.

In the remark (B), Mandeville tries to concretely explain what type of person whom he called 'Knaves' in his poem. Mandeville indicates "the innumerable Artifices, by which Buyers and Sellers out-wit one another, that are daily allowed of and practices among the fairest of Dealer." (Mandeville(1924) vol.1, P61.) In particular, Mandeville

focuses here the Artifices, Tradesman's hiding 'the Defects of his Goods' and extolling 'his Wares beyond their Worth'. Though the problem seems to be partly related to the asymmetry of information of the modern perspective, Mandeville's problem differs from it in that in his example, he presupposes that both buyers and sellers does not know the true information. Therefore, what he is analyzing is the situation in which both buyers and sellers face uncertainty. In addition, buyers and sellers in a Coffee Houses try to invest their surplus money in a quasi financial market. This setting is derived not from some abstract analytical interest but from Mandeville's everyday observation in Coffee Houses.

The scheme that he has is the moral problem, and in particular, the possible scheme can be Thomas Aquinas's problem, which considers the fraud¹². Thomas Aquinas questioned whether it is admitted to hide the information and sell his grains at a high price when one merchant comes to sell grains in a district where grains are short and he knows that numbers of carts will come with grains after him. Thomas Aquinas answered 'yes' but he indicated that this deed is against the words from Matthew, "do for others what you wanted to be done." As Mandeville refers to these words from Matthew twice in the remark (B), he is conscious of Thomas Aquinas's problem. However, the focus of the point is different from Thomas Aquinas's problem. Mandeville's problem concerns that of under ignorance and uncertainty inherent in Coffee House rather than hiding true information.

Decio, a Man of great figure, that had large Commissions for Sugar from several Parts beyond Sea, treats about a considerable parcel of the Commodity with *Alcander* an eminent *West-India* Merchant; both understood the Market very well, but could not agree: *Decio* was a Man of Substance, and thought no body ought to buy cheaper than himself; *Alcander* was the same, and not wanting money, stood for his Price. While they were driving their Bargain at a Tavern near the *Exchange*, *Alcander's* Man brought his Master a Letter from the *West-India*, that inform'd him of a much greater quantity of Sugars coming for *England* than was expected. *Alcander* now wish'd for nothing more than to sell at *Decio's* price, before the News was Public; but being a cunning Fox, that he might not seem too precipitant, nor yet lose his Customer, he drops the Discourse they were upon, and putting the Weather, from whence falling upon the Delight he took in his Gardens, invites *Decio* to go along with him to his Country-House, that was not above Twelve Miles from *London*. It was in the Month of May, and, as it happened, upon a *Saturday* in the Afternoon: *Decio*, who was a single Man, and would have no Business in Town before *Tuesday*, accepts of the other's Civility, and away they go in *Alcander's* Coach. *Decio* was splendidly entertain'd that Night and the Day following; the *Monday* Morning, to get himself an Appetite, he goes to take the Air upon a Pad of *Alcander's* and coming back meets with a Gentleman of his Acquaintance, who tells him News was come the Night before that the *Barbadoes* Fleet was destroy'd by a Storm, and adds, that before he came out it had been confirm'd at *Lloyd's* Coffee-House, where it was thought Sugars would rise 25per Cent. By Change-time. *Decio* returns to his Friend, and immediately resumes the Discourse they had broke off at the Tavern: *Alcander*, who thinking himself sure of his Chap, did not design to have moved it till

¹² S. Thomae Aquinatis (1985) Qu.77, art.1

after Dinner, was very glad to see himself so happily prevented; but how desirous so ever he was to sell, the other was yet more eager to buy; yet both of them afraid of one another, for a considerable time counterfeited all the Indifference imaginable; 'till at last *Decio* fired with what he had heard, thought Delays might prove dangerous, and throwing a Guniea upon the Table, struck the Bargain at *Alcander's* Price. The next Day they went to London; the News prov'd true, and *Decio* got Five Hundred Pounds by his Sugars. *Alcander*, whilst he had strove to over-reach the other, was paid in his own Coin: Yet all this is called fair dealing; but I am sure neither of them would have desired to be done by, as they did to each other. (Mandeville(1924) vol.1, pp.61-3)

The trade between *Decio* and *Alcander* in a Coffee House near the Exchange Alley is a speculative trade in which they are expecting future market conditions of sugars that will be sent from distant places. They both have private information on the market conditions and the reliability of the information is uncertain. Coffee Houses are full of information including deceiving one and traders do not have to reveal to the opponent what information he has. They could pretend or fake his own expectation in favor of his benefits. How can they stick a balance even if they at first did not agree in price? It is due to the changes of their expectation that was caused by their receiving new information hour by hour. Therefore, adjusting mechanism is psychological one. Although Mandeville did not elucidate adjusting processes in the above example, interpreting it from the perspective of the whole context of *The Fable* suggests that there is both structure and logic that attain the adjustment in Mandeville's thought. There are interactions of expectation formation between traders, in Mandeville's word, psychological adjustment through flattery and docility, which promotes public benefits. In modern perspective, the interactions can be interpreted as expectation formation that will support a level of effective demand in the whole economy. In fact, expectation of *Decio* and *Alcander* based on their private information that can be deceptive, forms a part of investment and finances not only the sugar market but also related industry, because they are dealing sugars not for their use as a commodity but for their speculation.

Mandeville interprets this psychological process based on his original cognitive discussion based on skepticism. Constructive and scientific skepticism under the tradition of Gassendi, it is supposed that we cannot recognize the substance of things, but we have cognition through phenomena if there is some consistency in apparent things. Mandeville could have applied this skeptical methodology on the economic sphere, presupposing that people are motivated in their economic activities (buying and selling) by apparent information even if they are ignorant whether the information is true or not. They can make use of uncertain information in building guide from perceptible information under uncertainty. In other words, they can adoptively form their expectations. In the above trade between *Decio* and *Alcander*, even if traders do not have true information in distant places or concerning others, they are navigated by current information as long as it is supposed to hold his psychological confidence sometimes endorsed by his economic gains as he thinks proper. Mandeville focused on this probable and temporary nature of cognitive learning developed in speculative markets in Coffee Houses. This unstable learning was critically suggested by Steel as the foundationless and fortuitous nature of economy and was not included in the main

stream of economics by Smith.

Furthermore, this way of learning partly corresponds to Berkeley's cognitive discussion of depth in the Molyneux problem. He indicates that depth is not recognized directly as an object but suggested by other perceptions such as colors, faintness and touches. This idea is one of his presumptions of his immaterialism. They are common in that indirect and apparent information plays a part of human cognition. However, they are different in an important respect. While Mandeville includes deceiving information devised by human in the process, Berkeley conceived that divine language, never deceiving and never by chance, is signs for human recognitions. According to Mandeville, as will be explained in the following section, to exchange deceptive information that can be true or false can be used for traders to find a path for economic coordination that will attain the division of labor. A psychological balance of deception that depends on chance and some human control is the very target of Berkeley.

4. The division of labor as a coordination problem in *The Fable*

Mandeville's *Fable* is seemingly a fragmental essay but it has a consistent structure and logic that support his economic insight. First of all, Mandeville sees the whole structure of economy that develops the division of labor and promotes the public benefits. Secondly, he recognizes that the structure is underpinned by psychological adjustments within local trading. The adjustment provides amalgamated effect to the whole interactions that will coordinate the division of labor. This section focuses on the first point and the next section on the second point.

Mandeville's discovery of social mechanism is ultimately with respect to the extent of the probability with regard to the transitions of the division of labor. He perceives that increased variations in desires, which are accidentally created, likely makes the society larger and richer. In other words, seemingly chance creates systematic regularities within economic interactions. Mandeville's description of this contingency repeatedly appear in both volumes of *The Fable*, as seen in the following quotation:

"We shall find likewise that the more their Pride and Vanity are display'd and all their Desires enlarg'd, the more capable they must be of being rais'd into large and vastly numerous Societies." (Mandeville (1924) vol.1. p.346-347.)

"The greater the Variety of Trades and Manufactures, the more operose they are, and the more they are divided in many Branches, the greater Numbers may be contained in a Society without Being in one another's way, and the more easily they may be render'd a Rich, potent and Flourishing People." (Mandeville (1924) vol.1. p.367.)

Mandeville unfailingly included the proposition of probability in his conclusion to the second volume, as seen in the following quotation:

“ the larger the Numbers are in a Society , the more extensive they have rendered the Variety of their Desires, and the more operose the Gratification of them is become among them by Custom; the less mischievous is the Consequence of that Evil, where they have the use of Money.” (Mandeville (1924) vol.2. p.350.)

The contents of Mandeville’s thesis, ‘Private vices, Public Benefits’, are explained in this proposition that as the variety of desires increased, the society likely becomes more rich and flourishing. In the same way, the opposite proposition that the less the desire, the poorer the society, is described in the poem of *The Fable*. How these propositions are derived?

On one hand, Mandeville perceives the division of labor to essentially provide an increase in production as well as improvement of technology, as seen in the following quotation:

“Watch-making, which has come to a higher degree of perfection, that it would have been arrived at yet, if the whole had always remain’d the employment of one person; and I am persuaded, that even the plenty we have of clocks and watches, as well as the exactness and beauty they may be made of, are chiefly owing to the division that has been made of that art into many branches.” (Mandeville (1924) vol.2, p. 284.)

On the other hand, Mandeville perceives the difficulty in the development of the division of labor to lie in the coordination of trading actions¹³. As shown in the following description, Mandeville perceives the difficulty of coordination regarding the division of labor in the spontaneous arrangements of production and trades.

“Savage People all do the same thing: This hinders them from meliorating their Condition, though they are always wishing for it: But if one will wholly apply himself to the making of Bows and Arrows, whilst another provides Food, a third builds Huts, a fourth makes Garments, and a fifth Utensils, they not only become useful one another, but the Callings and Employments themselves will in the same Number of Years receive much greater Improvements, than if all had been promiscuously follow’d by every one of the Five.” (Mandeville (1924) vol.2, P. 284.)

¹³ Recent study on the division of labor by Becker and Murphy (1992) delineates the neglected aspect by Smith. “The traditional discussion of the division of labor initiated by Adam Smith emphasizes the limitations to specialization imposed by the extent of the market. Limited markets occasionally curtail the division of labor, but we claim that the degree of specialization is more often determined by other considerations. Particularly emphasized are the various costs of ‘coordinating’ specialized workers who perform complementary tasks and the amount of general knowledge available.” They perceive general knowledge to be significant to the decrease in coordinating costs. Mandeville conceives the division of labor in a society rather than in a factory. Therefore, the general knowledge discussed by Becker and Murphy does not correspond with the knowledge required for the division of labor considered by Mandeville. However, since firms and enterprises considered by Mandeville are limited in the scale, essentially produced by an individual, there must be overall coordination among the independent specialized producers in the market. Therefore, something that corresponds with the general knowledge to decrease coordinating costs can be conceived by Mandeville. Mandeville perceives that accidental and tacit adjustments through fashion and “mode,” which are accompanied by implicit knowledge, promote coordination.

In this, Mandeville insists that five savage people will do the same thing in a way that all are promiscuously engaged in every production. Therefore they cannot enter into a society with the division of labor, even if they know the general benefits of it. The difficulty exists in to expect one's definite benefit from engaging a specific production while making sure of others' doing different production properly. Mandeville sees the problem as how people in a society can self-enforce their consumption and production according to the patterns of their activities the possible division of labor precisely require.

That is, each producer and trader has to correctly expect the gains of the division of labor, which essentially concerns with future and uncertainty. Here lies the problem of informational limitations in that the buyers and suppliers are unaware of the future state and therefore how to coordinate their demand and supply actions. Even though the increase in productivity provides potential public benefits, the entire economy is constrained by the difficulty in coordinating every detail of their economic actions, which provides the expansion of the market, that is, the increase in effective demand. It becomes evident through Keynes and the recent formulation of Keynes problem by Cooper and John (1988) that the problem regarding expectations and coordination is crucial in determining the extent of effective demand.

Furthermore, each individual has to adjust his trading actions differently in the entire economy. The informational basis of their economic actions must be localized individually. In other words, since the data used by each person are numerous and divergent, it must be changed and updated, corresponding to the changes of others' trading actions. In this sense, trade interactions leading to the development of the division of labor are enormously complicated, as described below by Mandeville:

“ What a Bustle is there to be made in several Parts of the World, before a fine Scarlet or crimson Cloth can be produced, what Multiplicity of Trades and Artificers must be employ'd! Not only such as are Cloth-workers, the Scourer, the Dyer, The Setter the Drawer and the Packer; but ithers that are more remote and might seem foreign to it; as the Millwright, the Pewterer and the Chymist, which yet are all necessary as well as a great Number of other Handicrafts to have the Tools, Utensils and other Implements belonging to the Trades already named.” (Mandeville (1924) vol.1, P. 356.)

Mandeville's problem is interpreted as coordination of trade networks such that it suitably leads to the development of the division of labor. Even if Mandeville did not develop, what we call, economic concepts, his focus of the problem crucially relates to the core of the economics, how coordination can be attained under some uncertainty. The examples discussed by Mandeville that the coordination is attained are two types. One type concerns investment market such as in Coffee Houses and the other type is consumption market such as dresses or silk clothes with mode and fashion.

The important point interpreting the working of these markets is that the concept of market as we think today is deficient in Mandeville's insight. It was at least after Smith that we presuppose an independent individual rationally subject to self-interest in the market place. Mandeville does not systematically analyze the price mechanism to consider the manner in which the division of labor is promoted. Therefore he has no frame that market mechanism works partially under the incomplete information. He

conceives a probability that various interactions of traders who try to directly influence other trader's cognition unintendedly promote benefits of all. Depending on the way of influence toward others, these interactions can be a part of the so-called market, however, in a polar case, it would be a case that non-independent and non-autonomous individuals are skillfully controlled under arbitrary or tyrannical systems.

5. Coordination through cognitive interactions

Mandeville's description of the entire process of cognition involves the following: the receipt and storage of information through the senses followed by the arrangement and manipulation of stored information to form ideas.¹⁴

Based on this conception of the process of cognition, Mandeville surmised the existence of imbibed notions, that is, modes of thinking that reflect customs and dictate the manner in which ideas are arranged and combined, and even the existence of ideas. Based on this, it is evident that the manner in which the brain processes information is not just physiologically determined but also crucially influenced by custom or "modes" of behavior.¹⁵ Mandeville calls forth the power of custom to provide some implication to the modes of thinking as "imbibed notion" in the following:

"And to this Day, taking off the Hat is a dumb Sew of a known Civility in Words: Mind now the Power of Custom, and imbibed Notions. We both laugh at this *Gothick* Absurdity, and are well assured, that it must have had its Origin from the basest Flattery: yet neither of us, walking with Hats on, could meet an Acquaintance with whom we are not very familiar, without shewing this Piece of Civility; nay, it would be a Pain to us not to do it. But we have no Reason to think, that the Complement of saying, *Your Servant*, began among Equals; but rather that, Flatters having given it to Princes, it grew afterwards more common." (Ibid. vol.2 p.151.)

Locke's influence on Mandeville is seen in the conception of "imbibed notions". Locke discusses the possibility of varying ideas among individuals. In his search for absolute certainty regarding knowledge, he argues that one has to endeavor to distinguish simple ideas from compound notions with respect to things. In other words, before reaching a certainty, human minds are subject to confusion through imbibed notions originating from customs. While Locke considers the imbibed notions to be temporal deviations from the process of arriving at true ideas, Mandeville regards the

¹⁴ In this way, Mandeville's hypothesis followed the empirical studies of Locke and Berkley of the late 17th and the late 18th centuries. The above cognitive discussions reveal certain influences of Locke. First, Mandeville denies innate ideas. Second, using the word *Charte Blanche*, which is similar to the word "tabula rasa" used by Locke, he supposes the process of acquiring ideas through experiences. Third, while he assumes the ignorance of men, he presumes that God is certain of what reality is. In other words, only God or divine wisdom guarantees complete knowledge and its existence.

¹⁵ These cognitive discussions resemble Hume's philosophical conceptions in his work *Treatise of Human Nature*. Mandeville's "image" corresponds with Hume's "impression." Mandeville's "custom" corresponds with Hume's "convention." Both are similar in their tone for assuming a type of inductive reasoning. It is true that Mandeville's statement is vague and dispersed. Mandeville may have influenced Hume in some manner; however, further research is required to demonstrate this. Contrary to Mandeville, Hume's main theme is found in a stable convention such as property rights. However, Mandeville is interested in "mode" in a luxurious economic society. Although Hume also paid attention to "luxury" and designated an important role to it, he changed the expression "luxury" to "refinement" in the later version. On the contrary, it appears that Mandeville's cognitive discussion is diluted in Hume's philosophy.

effects of imbibed notions to be continuous¹⁶. While Locke presupposes a true learning process that requires intellectual functioning, Mandeville denies such a stable and converging process of the intellect. Mandeville's skeptical critic toward Locke's idea for intellectual functioning lies in this denial. Mandeville considers that judgments resulting from one's intellectual functioning can err in processing the information received through senses.

According to Mandeville, each individual in a society, in particular in the market, is subject to deceit through such a communicative process seen in "imbibed notion." What Mandeville describes as "flattery" or "docility" can be interpreted as the communicative process where each individual is exposed to various and even empty or erroneous information. The market process described by Mandeville is navigated by skillful controls and tactics used by traders, who try to influence others' cognition toward market realities by employing pride and flattery. He remarked a characteristic of human nature known as "docility," which allows people to feel easily flattered and persuaded to perform some actions. Mandeville explains that consumers are easily flattered by sellers' navigations or influenced by trends in such a manner that they are prompted to demand some new goods. This promptitude is a driving force for the market process to create and adjust the potentially effective demands of the market.

The following description of negotiating traders can be interpreted as a process of trials for creating desires through flattery:

"His Business is to sell as much as Silk as he can at a Price by which he shall get what he proposes to be reasonable, according to the Customary Profits of the Trade. As to the lady, what she would be at is to please her Fancy; and buy cheaper by a Groat or Sixpence per Yard than the Things she wants are commonly sold at. ... but attacking her Vanity makes her believe the most incredible Things in the World, concerning his own Weakness and her superior Abilities; ... It is possible that this Lady for want of being sufficiently flatter'd, for a Fault she is pleased to find in his Behaviour, or perhaps the tying of his Neckcloth, or some other dislike as Substantial, may be lost, and her Custom bestow'd on some other of the Fraternity. " (Ibid.vol.1 p.350-352.)

Mandeville's primary concern is to understand how fancy and vanity in a buyer's mind are stimulated and taken advantage of by a seller while trading. Schabas (1994) interprets this description as a negotiation of prices between a buyer and a seller—haggling. Price of a good certainly forms a part of their concern. However, they do not concentrate on the prices of trade alone but also on the additional values attached to the traded goods. Moss (1987) perceives, in the above description, some

¹⁶ Locke states in the following quotation:

"If it should happen that any two thinking men should really have different ideas, I do not see how they could discourse or argue one with another. Here I must not be mistaken, to think that every floating imagination in men's brain is presently of that sort of ideas I speak of. It is not easy for the mind to put off those confused notions and prejudices it has imbibed from custom, inadvertency, and common conversation. It requires pains and assiduity to distinct simple ones out of which they are compounded; and to see which, amongst its simple ones, have or have not a necessary connexion and dependence one upon another. Till a man doth this in the primary and original notions of things, he builds upon floating and uncertain principles, and will often find himself at a loss." 237

subjective expectation from the economic gains in exchanges. This paper shares with Moss (1987) the view that Mandeville focuses on the individual's perception of reality as an important determinant of the economic process.¹⁷ While Moss refers to the peculiar aspect of Mandeville's thought as "subjective mercantilist," the aspect can be understood better within the philosophical context in relation to Berkeley.

This paper interprets that Mandeville proposes a solution in the form of a strategic urging toward consumption using trends and modes, which is possible, at an individual's level, through the psychological learning of the action of making demands. For example, although an individual, at first, is indifferent to the colors of her dress, her additional demand for red color dresses, which is the current trend, could develop the division of labor in some related area of production such as the dye industry as well as those that are distantly related, as discussed in the example of fine Scarlet cloth in the previous section. In order to coordinate the trading patterns in the entire economy, an empty and seemingly useless trade can link the networks of the economy, which causes an expansion of the market. For example, some beneficial effects through the expansion, such as lowering costs, provide welfare to each consumer through the complex linkages of trade. As a result, even if a trade is initially useless to the trader, it is rationalized following an awareness of its amalgamated effects. The characteristics of the learning lie in that her cognition toward her gains from the market is developed through various perceptions, that is, the perception of the red products bought by her and that of the economic gains through all trade she engages in. In other words, cognition of economic gains is based on cognitive learning with amalgamated effects.

This forms the basis of the cognitive and psychological learning of the market process conceived by Mandeville, which can be derived from applying Mandeville's skeptical extension of Molyneux problem. Mandeville discusses Molyneux's problem in his essay *A Search into the Nature of Society* because the problem regarding cognition toward market reality has a construction similar to that of cognition toward space attributes. Having indicated what type of cognitive ability enables men to understand their relations in a social space, he identifies a similar cognitive learning in the market processes discussed in the cognition of depth by Berkeley. Since depth is not the direct object of sight and is suggested by the collaboration of different senses, individual cognition in the market process is synthesized by combining heterogeneous data through various trading relations. Mandeville observed the psychological aspects of human nature, particularly by comparing how individuals receive, interpret, and manage the information received through daily market interactions to a blind person with restored vision who initially learns to recognize depth by combining what he views and the way he touches.

Depth is determined through a synthesis of visual and tactile experiences. Colors, lights, and shades are translated into measures of distance since a perceiving individual repeatedly learns how things appear depending on the distance of the thing from him. Economic gains from the division of labor are learned by synthesizing information from

¹⁷ While Moss interprets that subjective valuation creates redistribution of wealth in zero-sum game, this paper views an individual's perceptions that are embedded in the endogenous processes for developments of the division of labor, which promotes the benefits of all. One person's subjectively high valuation for goods not only temporally adds demands for the goods but also in the long term is sustained as real economic gains through the division of labor. For example, an entire economy is able to enjoy the benefits of high productivity through the division of labor, which was made possible by an accidental increase in demand.

direct purchasing actions and their total effects, which emerge through the entire economy with complicated interactions. In the latter case, measure of economic gains from the division of labor, dependent on every detail of individual trading actions, cannot be stable as compared to that in the former case. The nature of market realities is a derivation from the relative composition of trade interactions. In this, the objects of cognitive learning—market realities—are not predetermined factors but endogenously determined within the market process.

Mandeville observes that causal relations between a consumer's motivations and his purchasing actions are not rigidly fixed since he is easily influenced by strategic urging. Pride and flattery through market communication influence each individual's cognition toward market realities. However, this does not imply that he is capable of being maneuvered in any direction. He allows this until the certain state of things, that is, market realities, rise up to his interest. However, the extent of its perceptual appearances that are acceptable to each individual is so broad that the economic path of the market process is dependent on their unconscious psychological learning. As suggested by "imbibed notion," Mandeville does not perceive the learning process as straightforward, converging, and stabilizing as the learner gathers certain information through interactions. He perceives it as rather twisted, fluctuating, and flickering, depending on how each person is flattered and persuaded by others' intentional actions. In this case, the determination of concrete economic performances by way of deceptive controls depends on how things appear and how things are allowed to appear with respect to an economic environment, even if they had no entities in advance.

The overall cognitive interactions are processes for construction of knowledge from seemingly incoherent perceptions. The processes are occasionally fortuitous and can be interpreted as probabilistic, which is targeted by Berkeley's criticism. Mandeville indicated the processes as a paradoxical and atheistic vision and, in no way, interprets the process to lead to a systematic analysis. However, Mandeville's insight into the process including the explanation through chance factors reveals the innovative aspects of his probabilistic vision at a period dominated by the deterministic approach.

6. The implications toward the economic thought after Mandeville

The debate¹⁸ continues over the exact categorization of Mandeville's thinking in the history of economic thought. From the perspective of economic thought, Mandeville's studies continue to present one difficulty in that he has two seemingly contradicting aspects: on one hand, they appear to be a forerunner of economic liberalism such as Smith's natural liberty and Hayekian type of "spontaneous order"; on the other hand, they are suggestive of interventionism such as mercantile systems and the control of effective demand as suggested by Keynes. These inconsistent interpretations have been solved to some extent in literature (Chalk (1966), Tanaka (1966)) by placing Mandeville in transition from mercantilist thought to economic liberalism. The studies into the evolution of legal institutions in society have

¹⁸ There have been broadly two types of appraisals on Mandeville's thought: one focuses on Mandeville's work from the perspective of it being a precursor to Smith's economic liberalism (Kay (1924)) and the other views Mandeville as being within the interventionist or mercantilist mould. For example, while Viner (1958) recognized Mandeville's conception of interventionism, Landreth (1975) viewed Mandeville's work as typical mercantilism..

contributed this interpretation of Mandeville's thought. Rosenberg (1963) perceived an explanation for the emergence of legal institutions in *The Fable*, whereby the government had to inevitably intervene in order to establish and administer the institutional framework of a society. Hayek (1967) interpreted Mandeville's ideas on institutional structures as being based on the evolution of spontaneous orders.

The unique logic that underpins Mandeville's description can be partly highlighted through the evolutionary framework. However, there can be two different types of construction on the basis of the framework. On the one hand, the evolutionary logic that can be applied to the "spontaneous order" approach presupposes the existence of a path, "natural course of things", which an economic order converges on in the long run. This path follows a natural course where natural human inclinations are supposed to provide harmony under the system of natural liberty. The evolutionary logic fits a selective process that eliminates hindrance to the overall functioning of the liberal system, which is basically under the tradition of naturalism. In Mandeville's second volume of *The Fable of Bees* published in 1729, the similar evolution of law institution has been discussed, which is interpreted by Rosenberg and Hayek as Mandeville's evolutionary approach. However, this Mandeville's discussion has been overestimated since it was inserted for the first time in the second volume in order to defense his original thesis in the first volume, "private vices, public benefits". As Mandeville was criticized as recommending the bad action against laws, one of the objects of publishing the second volume is to explain that he did not intend to agitate criminals. For that purpose, he presupposes common goods that should be institutionalized in law system, even if there remains breaching by cunning persons. Mandeville's conception of vice would be minimized in its implication, if it is appraised in the evolutionary process that converges to common goods.

On the other hand, Mandeville basically supposes in his thesis, "private vices, public benefits", that social patterns do not converge on a predetermined pattern but create various ones depending on the intentional and artificial controls exercised by humans even in an evolutionary process. Since Mandeville admits fallibility of human cognition, the social orders are subject to various controls through human cognition. Mandeville's essence relates to a formative process that fits individual actions into social requisites since it is difficult to understand them by the simple application of evolutionary logic as a selective mechanism. The unique formative construction of the process is crucial to the understanding of Mandeville's liberal autonomy with intentional influences.

The difficulty in placing Mandeville in terms of general categorizations in economic thought has been discussed in some literature. Hutchison (1988) argues that it is difficult to appraise Mandeville in terms of "mercantilism" or "economic liberalism." Moss (1987) uses the concept of "subjective mercantilism" to distinguish Mandeville from other mercantilists. Hundert (1994), who provides a new interpretation that Mandeville's *Fable* exerted significant influence on the entire European enlightenment thoughts. *The Fable* is also considered to be specifically within the contexts of the "virtue" problem of the 18th century (see Horne (1978) and Goldsmith (1985)).

Since Kaye's early studies on Mandeville (1924), Mandeville's "vice" has been vaguely connected to his "self-interest," which has been a hindrance to the appraisal of the significance of Mandeville's economic thinking. Under self-interest, while selfishness as the basis for individual pleasure and pain is ascribed to the image of

Mandeville's "vice," it has been positioned as a premature concept before the behavioral model of utility maximization that emerged under the influence of utilitarianism in the 19th century. Recent studies, Bianchi (1993) and Hundert (1994), shed light on the particular nuance and broad implication of Mandeville's conception of vice. The emancipation of Mandeville from Smith in these literatures exemplifies the appropriate direction to be followed in Mandeville's studies; however, the emancipation is partial.

Bianchi (1993) has further extended both Rosenberg's and Hayek's interpretations by emphasizing on the crucial role played by learning processes in Mandeville's conception. Bianchi likened this process to those games played frequently by players who learn to advance to a more efficient equilibrium spontaneously. From this perspective, Mandeville's conception of "vice" is interpreted as being similar to a deceiving strategy (i.e., a non-cooperative strategy) in a Prisoners Dilemma game. Bianchi interprets bad actions against laws as "vice," which is eliminated from the legal institution following its establishment. Although "vice," as a bad action against laws, breaks the existing evolutionary path, it is eliminated from the path in the long run. However, in the main thesis "private vices, public benefits," Mandeville conceives a fine adjustment of the deep-rooted market processes in which "vice" continues to function as a component of the process. After all, the idea that legal institutions evolve over a long term can be seen as Mandeville's secondary product when he attempts to defend his main thesis that relates to the economic mechanism for the division of labor,

Hundert broadened the extent of literatures for Mandeville studies so as to appraise him in a broad context of European enlightenment thought and tried to interpret his concept in comparison with Smith's that has narrowed the conceptual space of economics. Hundert emphasizes on Mandeville's significance with respect to enlightenment thoughts by highlighting his insight into the dynamic change of an individual's pride in a social space. Hundert uses the phrase "dramatic social fact" or "public market for token of esteem" to depict Mandeville's unique idea of the interactions of self-consciousness or pride within a society. According to Mandeville, the underlying motivations for economic actions in individuals cannot necessarily be reduced to only private desires but can be derived from societal measures such as reputation and prosperity. This aspect is partly the motif of Mandeville's precursors such as French moralists and cannot be attributed originally to Mandeville. The consciousness exhibited in various social dimensions can be a prologue to sociological approaches, as seen in Veblen's conspicuous consumptions. Though interactions of motivations in an economic society are one of Mandeville's points and can be interpreted as common with Veblen's idea. The points that the psychological adjustment works through localized interactions in the market and that the working attains the development of the division of labor are crucial to the originality of Mandeville's idea.

The above Mandeville's insight cannot be found as it is in the standard textbook of economics. However, the similar discussion can be found in Keynes' discussion on the consumption function and its relation to national income in *The General Theory*. Keynes analyzed that some reduction (rise) in the marginal propensity of consumption, which is usually stable, brings about the decrease (increase) of national income. In this connection, in the sense that increase of the propensity of saving does not necessarily lead to the increase of production, Keynes discussed a paradox; what is

intended in individual level is not attained in a society. There is a commonality between Mandeville and Keynes as to the paradoxical relation.

Though Keynes does not refer to the variety of consumption, the paradoxical relation is rooted in the basic principle that the amount of effective demand determines the total production. It is inferred that Mandeville also presumes a kind of effective demand in the determinant of the wealth of a country. The mercantilists in the late 17th century, for example, N. Barbon and D. North including Mandeville, emphasize the effect of luxurious consumption to promote trade. This can be interpreted as the effect resulting from the increase in effective demand, and Keynes finds his precursors in them. What is unique in Mandeville is to investigate how a kind of effective demand endogenously created through psychological processes. Mandeville's uniqueness, which is differentiated from other mercantilists, lies in his focus on how individual cognitive learning helps coordinate the whole instead of implicitly presupposing the effects of luxurious consumptions in order to increase effective demand.

Mandeville's uniqueness can be also found, if the psychological process as he discussed is applied to the case of the investment market in Coffee Houses. As investment demand and consumption demand constitute a whole effective demand, this application basically relates to psychological creation of effective demand. Though he does not explain explicitly how the cognitive learning works in the above trade between *Decio* and *Alcander*, in this example, he tried to explain the concrete contents of *Knaves*, vice oriented action. Therefore, we could interpret that the mechanism how vice works in the economy is also presupposed in this example. When traders are facing uncertainty in their speculation, even if they are ignorant of exact and sure information, they could infer and construct information by combining private information and, as a result, would be induced to invest. The point of Mandeville's insight is that affluence of information in Coffee Houses, regardless they are true or false, increases the probability that will construct useful knowledge as a result. He directly observed that even if traders seem to be deceiving each other, their perpetual interactions in Coffee Houses have an effect of expanding economic activities.

This insight partly corresponds to Keynes' discussion in chapter 12 of his *General Theory*. Keynes discussed that there is no foundation for expectation formation for long term investment. Keynes explains that when stock market was not organized, in investing long term enterprise by establishing company, the enterpriser had to take on every uncertain risk at the cost of his all life. However, when the stock market was organized, the risk was divided and spread over the many anonymous investors, because they can withdraw and invest his money to different enterprises at anytime. Then, the financial market is compared by Keynes with the musical chairs or beauty contest, where players expect what other players expect. This psychological adjustment partly corresponds to Mandeville's point in that if their expectations are coordinated well, economic activities are supported on the corresponding level of the effective demand. There is difference between Mandeville and Keynes in this respect. On the one hand, as Keynes saw the highly systematized stock market in his time, he focused how expectations of speculators are deviated from the fundamental level of investments. On the other hand, as Mandeville saw the rising stock market around Coffee Houses in his time, even if expectations of speculators are foundationless, Mandeville remarked the possibility of the coordination through bilateral trading in Coffee Houses, that is, in a more decentralized way.

We can interpret that Mandeville's point had disappeared in the economic thought systematized by Adam Smith. Smith develops his concept of the division of labor in *The Wealth of Nations*. He explains that the development of the division of labor is limited by the following factors, (1) the size of the market and (2) the amount of capital accumulation. However, he does not explicitly explain how the size of the market expands with capital accumulation along the natural course of things in his natural price mechanism. Although the size of the market is a limiting factor for the division of labor, it naturally tends to expand along with capital accumulation and increased supply of goods in Smith's system.¹⁹ In other words, using market price and the natural price mechanism, even if individuals are seeking self-interest as autonomous individuals, they are supposed to promote the process most efficiently. In this relation, as Smith emphasized the division of labor in a factory rather than that of in a society, the scope individual is limited within his managing capital. Therefore, rational and self-interested individuals can promote the efficiency of the economy. According to Smith, the efficiency is embodied in harmony in the world of God as invisible hands.

Mandeville's religious position differs from Smith's naturalistic and deistic approach through the invisible hand explanation. In Smith, individuals are conceptualized as being capable of accurately and appropriately acquiring a part of knowledge on the entire state of the world under the system of natural liberty. In cases where not a single person is presumed to be perfectly aware of the truth and the value of information, economic liberalism under the naturalistic tradition places trust in the free market following the emphasis laid by Hayek on the function of the market, in particular through the price mechanism, in order to utilize knowledge. This optimistic vision has its origin in Adam Smith's view for the providence in the social and moral order²⁰. This is the basis of our mainstream of economic liberalism.

However, under the skeptical tradition of Gassendi and Bayle, Mandeville never assumes either the realities of things or the human capacity to grasp the realities. Mandeville applying Epicurean atomistic vision toward the moral and economic world of his time, he pointed out the contradictory feature between the accepted moral code

¹⁹ Negishi (1989) indicates how competition as free entry and increasing returns to scale due to the division of labor are compatible in Smith's proposition, "The division of labor is limited by the extent of the market." Natural price can decrease even if natural rates of profits and wages are definite under the general circumstances of the society, when the division of labor within a factory enables diminishing costs with respect to the scale of the supply. In this case, the declining natural price curve corresponding to the increasing quantity of supply implies the degree of development of the division of labor. The market system Smith considers is not interpreted as the organized market with an auctioneer adjusting prices corresponding to excess demand. In other words, suppliers assume an asymmetric subjective demand curve in status quo. If a supplier prices higher than status quo, he loses his customers, who will buy from other suppliers who sell at the price in the status quo. However, although a supplier prices lower than status quo, the price reduction will not necessarily be known to potential demanders. As a result, suppliers suppose that while the quantity sold at the price in status quo continues to be sold, the elasticity of price with a quantity more than what is sold in the price is smaller. According to the interpretation, the quantity of supply with increasing returns to scale is not determined by the terms of costs but by the subjective demand that is limited by the size of the market. Within the size of the market, competition is established through free entry of suppliers. If the market enlarges under some factors, the market equilibrium shifts, while the division of labor develops along the movement. However, how the process proceeds is not clearly explained by Smith.

²⁰ Viner (1972) sees that the deistic approaches in 18th century presupposed the existence of some dominating providence and that they tried to explain how the providence works through secondary causes such as human psychology, reason and moral senses, without revelation by God. Based on the conservative trend characteristics in Britain, Smith's providential view stems from R. Cumberland, Shaftesbury and Hutcheson. Viner interprets that within Smith's system of thinking including both the moral and economic theory, human senses are embedded in human nature through the providence and they make no mistake under some normal and natural circumstances. Smith's analysis on senses, emotion and feeling in human nature intrinsically naturalistic.

and the mechanism in the economy. In this, reflecting his skeptical stance, Mandeville views the state of the economic world as dependent on an individual's artificial, and occasionally arbitrary, cognition toward the state. Furthermore, he sees that the state of the economic world is relational, and the relation is not deterministic but probabilistic within the cognitive interactions of individual atoms constituting the world. Since he is aware of the acquisition of knowledge merely through the appearance of things, he considers voluntary involvements in the market to include complicated interactions of control and deceiving information. This market view and its philosophy in the Epicurean revival introduced chance factor, reflecting the Epicurean atheistic aspect that can not be accepted in his time.

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