A Curious Neglect of Cicero as the First Predecessor of Asymmetric Information by the Five Nobel Laureate Economists

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Abstract

In 1996, two economists, and in 2001, three economists, were jointly awarded the Nobel Prize in Economics by the Royal Academy of Sciences of Sweden for their revolutionary contributions to asymmetric information. The contribution of the first predecessor of asymmetric information was neither cited/quoted nor acknowledged by at least one of the five Nobel laureate economists in their works. This is a curious neglect of Cicero as the first predecessor of the concept of asymmetric information by the five Nobel laureate economists. Hence, Stigler's Law of Eponymy : "No scientific discovery is named after its original discoverer" (Stigler, 1980, p. 147) is also applicable to Cicero. The objectives of this article were four-fold: (a) to disclose the name of the earliest predecessor of the concept of asymmetric information : Marcus Tullius Cicero (106 - 43 BC), who was an ancient Roman Stoic philosopher, (b) to disclose how Cicero described the informational asymmetry between the sellers and buyers of the markets in terms of the different examples of economic exchange or transaction by "few words, with gentleness and efficiency," (c) how Cicero has elevated the discussion of asymmetric information from positive to normative or moral perspective, which can be found in his treatise, entitled, *De Officiis* (44 BC), whose English translation is *On Duties* and (d) to indicate that the concept of adverse selection, which is one of the problems of asymmetric information, was first coined by the Chicago university economist Carlos C. Closson in the article "*Social selection*" in 1896.

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"We must first know what we ought to do, and then live according to that knowledge" (Hazlitt & Hazlitt, 1984, p. 40).

The discussion of asymmetric information or informational asymmetry is included as a separate chapter in the microeconomic textbooks for the undergraduate and post graduate students. In better words, asymmetric information has become a staple in microeconomic education at the lower and higher levels. But surprisingly and unfortunately, no microeconomic textbook or article has disclosed the name and contribution of the "first predecessor of asymmetric information." However, only few lines about Cicero's example(s) of asymmetric information have been rewritten in the literatures like Editors (2007), Baloglou (2012), Faccarello and Kurz (2016), and Jeadan (n.d.).

The Nobel Prize in economics was awarded by the Royal Academy of Sciences of Sweden jointly (a) in 1996 to the two economists : James Mirrles (UK) and William Spencer Vickrey (USA) for their fundamental

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contributions to the economic theory of incentives under "asymmetric information," and (b) in 2001 to the three economists: George Arthur Akerlof (USA), Andrew Michael Spence (USA), and Joseph Eugene Stiglitz (USA) for their analysis of markets with "asymmetric information."

At least one (e.g. Joseph Eugene Stiglitz) of the foregoing five Nobel laureates mentioned the names of the "early and earlier predecessors" (not the earliest predecessor) of asymmetric information. Analogously, in the discussion about the history of the idea of asymmetric information, James Madison University economist, Jr. J. Barkley Rosser (2003), followed suit. But none of the six economists (five Nobel laureates and one non-Nobel laureate) did mention, cite, quote, or acknowledge the name of the "first predecessor" of the concept of "asymmetric information." Unfortunately, this is a curious neglect of Marcus Tullius Cicero (106-43 BC) as the real inventor of the concept of asymmetric information by the five Nobel laureate economists.

The contributions of the foregoing five Nobel laureate economists constitute the foundation of the "economics of information," which was formally introduced by another American Nobel laureate (1982) economist, George Joseph Stigler (1961), who was the father of Stephen Mack Stigler. Stigler's Law of Eponymy, which states that "no scientific discovery is named after its original discoverer" (Stigler, 1980, p. 147) is named after Stephen Mack Stigler.

Asymmetric information, which has been explicated with sophistication by George A. Akerlof (1970), is the sub-set of the "economics of information." The Nobel Committee described Akerlof's (1970) article as "the single most important study in the literature on economics of information." The researches of the foregoing five Nobel laureate economists are associated with the informational asymmetries between the sellers and buyers of the markets by which the market-mechanism is vitiated, and in consequence, the markets cannot function as the best or efficient allocators of resources for their imperfection. Hence, owing to the malfunctioning of the markets caused by the asymmetry of information between the sellers and buyers of the markets, governmental intervention may be required in the capitalist systems for reducing or ruling out the market imperfections.

The only cause of such a "curious neglect of Cicero as the first contributor to asymmetric information" lies in the asymmetry of information, knowledge, and/or wisdom by which the foregoing five economists were awarded the Nobel Prize in Economics in 1996 and 2001. By any criterion, originators of new ideas should be rewarded and recalled, irrespective of time and number of ardent readers. All wisdoms are knowledge, but the converse is not true. In better words, wisdom is the subset of knowledge. Surprisingly, none of the five Nobel Laureate economists as well as the Nobel Committee demonstrated the acknowledgement or gratefulness to the first predecessor of asymmetric information consciously or unconsciously. Hence, the foregoing five Nobel laureates were absolutely devoid of "wisdom" and not "knowledge" (because a researcher's optimal or super-optimal amount of knowledge is the precondition of realizing the Nobel Prize), if such acknowledgement had not been shown deliberately and consciously. Absolute ignorance or unawareness of the five Nobel laureates about Cicero's work may be the cause of their non-citation or non-acknowledgement.

A stone is broken by the last stroke of a hammer. This does not mean that the first stroke is useless. The last stroke should not neglect the first stroke and should be grateful to the first stroke for its first effective contribution to break a stone. Thus, the moral values of humans should not be reducible.

Hence, the objectives of this article are four - fold :

(i) To discover the name of the earliest predecessor of the concept of asymmetric information : Marcus Tullius Cicero (106 - 43 BC), who was an ancient Roman Stoic philosopher,

(ii) To disclose how Cicero has described the informational asymmetry between the sellers and buyers of the markets in terms of the different examples of economic exchange or transaction by "few words, with gentleness and efficiency,"

(iii) How Cicero has elevated the discussion of asymmetric information from positive to normative or moral perspective, which can be found in his treatise, entitled, *De Officiis* (44 BC), whose English translation is *On Duties*, and

(iv) To indicate that the concept of adverse selection, which is one of the problems of asymmetric information, was first coined by the Chicago University economist, Carlos C. Closson in the article "Social selection" in 1896. Though there are English translations of Cicero's *De Officiis* by only several authors (e.g. Cockman, 1833, 1839 ; Griffin & Atkins, 1991 ; Peabody, 1887; Miller, 1913), the translation by Walter Miller (1913), who was a professor of Latin in the University of Missouri, is preferred as the sole source of reference for discussing Cicero's views about asymmetry of information in economic exchange or transaction in this paper.

Incomplete or imperfect knowledge can be indicated by asymmetry of knowledge. Like knowledge, information is also asymmetric. Asymmetry means heterogeneity, differentiability, or inequality. However, symmetry means homogeneity, uniformity, or equality. Asymmetric knowledge has two forms: (a) absolute asymmetry, which says that no one individual knows all things in the universe. It means that intra-personal knowledge about all things in the universe is absolutely limited or bounded, and (b) relative asymmetry, which tells that one individual has more or less knowledge about a particular thing in the universe than the other individual. It means that inter-personal knowledge about a particular thing in the universe is unequal.

Relative asymmetry, which is a matter of degree, is of two types: (a) Strong relative asymmetry, which indicates that inter-personal knowledge about a particular thing in the universe is extremely or unprecedentedly unequal. For example, one individual has 100%, while the other individual has 0% knowledge about a particular thing in the universe, and (b) weak relative asymmetry, which suggests that inter-personal knowledge about a particular thing in the universe is moderately or mildly unequal. For example, one individual has 60%, while the other individual has 40% knowledge about a particular thing in the universe.

Information, Knowledge, and Wisdom

Wisdom, knowledge, understanding, information, and data cannot be interchangeably used. It means that they are not synonymous. From the Chorus of T. S. Eliot's (1934) *The Rock*, we find the following relationship among information, knowledge, and wisdom :

> Where is the wisdom we have lost in knowledge ?
> Where is the knowledge we have lost in information ?

Further, the following remark of Neil D. Fleming (1996) is also relevant to recall (cited in Erickson, 2009, p. 13) :

> A collection of data is not information.
> A collection of information is not knowledge.
> A collection of knowledge is not wisdom.
> A collection of wisdom is not truth.

Moreover, the following lines are reminded us by R. L. Ackoff (1999) :

> An ounce of information is worth a pound of data.
> An ounce of knowledge is worth a pound of information.
> An ounce of understanding is worth a pound of knowledge.

Data means symbols. Information implies data, which are processed to be useful and which provides answers to "who," "what," "where," and "when" questions. Knowledge is the application of data and information and it provides answers to "how" question. Understanding refers to the appreciation of "why" question. Wisdom is the evaluated understanding (Ackoff, 1989).

Information relates to description, definition, or perspective (what, who, when, where). Knowledge comprises of strategy, practice, method, or approach (how). Wisdom embodies principle, insight, moral, or archetype (why) (Erickson, 2009, p. 15).

In better words, data represents a fact or statement of event without relation to other things. Information embodies the understanding of a relationship of some sort, possibly cause and effect. Knowledge represents a pattern, which connects and generally provides a high level of predictability as to what is described or what will happen next. Wisdom embodies more of an understanding of fundamental principles embodied within the knowledge, which are essentially the basis for the knowledge being what it is. Wisdom is essentially systemic (Bellinger, Castro, & Mills, n.d.).

Wisdom is a right understanding, a faculty of discerning good from evil; what is to be chosen and what rejected; a judgment grounded upon the value of things, and not the common opinion of them; an equality of force, and a strength of resolution. To be wise is the use of wisdom, as seeing is the use of eyes, and well-speaking the use of eloquence. No man is born wise; but wisdom and virtue require a tutor, though we can easily learn to be vicious without a master. However, we have only words of wisdom without the works (Hazlitt & Hazlitt, 1984).

According to Lombardo (2012), wisdom is the highest expression of self-development and future consciousness. It is the continually evolving understanding of and fascination with the big picture of life, of what is important, ethical, and meaningful, and the desire and creative capacity to apply this understanding to enhance the well-being of life, both for oneself and others. Wisdom synthesizes cognitive capacities, such as expansive and informed thinking and creative and practical knowledge, with emotional sensitivity and depth and ethical consciousness. Wisdom unites mind, heart, action, and ethical values. Wisdom is identified as the highest expression of future consciousness. Wisdom, in fact, can be seen as cosmically expansive and ethically informed thinking tied to action. Why search for wisdom and enlightenment ? The pursuit of wisdom and enlightenment is critically important to living the good life - to realize what is best in us, to giving meaning and purpose to our existence. Wisdom and enlightenment bring quality to life. Wisdom answers the question of how to live; enlightenment answers the question of what to live for. Knowledge and wisdom are journeys rather than destinations; there is no absolute enlightenment.

A Brief Sketch of Asymmetric Information

Capitalism is a global system. The future will tell whether capitalism will be sustainable or unsustainable. However, in reality, capitalism sustains, and anti-capitalism (e.g. socialism or communism) has been reduced or ruled out from the world. The sustainability (or unsustainability) of capitalism depends on the success (or failure) of the markets. The participants of the markets are the sellers and buyers, while the variables of the market are the demand, supply, price, quality, and quantity of the commodity sold and bought in the market. The market participants are the rational decision-making units. The success of market is indicated by the realization of the socially optimal or efficient allocation of scarce resources by the market mechanism. One of the criteria of market efficiency is that market participants possess or acquire perfect or complete information (or symmetric information) about the characteristics of the commodity bought and sold in the market. In reality, market participants cannot always acquire perfect or complete information because the search for or acquisition of information inflicts cost to the market participants, which is called the "cost of information." This means that market participants undertake "rationally decisionized action" under uncertain conditions. However, the failure of the market depends on the diverse determinants. One of the crucial determinants of market failure is that the market participants are equipped with imperfect or incomplete information, which may be renamed as asymmetric information or informational asymmetry (Maddala & Miller, 1989).

Asymmetric information exists in the market if the market participants (sellers and buyers) are not equipped with an equal amount of information about the (hidden or unobservable) characteristics of the commodity (e.g. quality) bought and sold in the market. In better words, if one market participant possesses or acquires more or less information than the other market participant about the (hidden or unobservable) features of the commodity bought and sold in the market, then asymmetry of information is existent in the market. In the market, the participant who is equipped with more, better, or stronger information about the characteristics of the commodity bought and sold in the market has a “comparative advantage” about the information, while the other participant possessing less, worse, or weaker information has a “comparative disadvantage” about the information. If “more (or over) informed market participants” confront with the “less (or under) informed market participants” in the market, then asymmetric information exists in the market.

The eventual and inevitable problems of asymmetric information in the markets are the (a) problems of adverse selection or unfavorable selection (which is renamed as hidden information) and (b) problems of moral hazard (which is renamed as hidden action) (Maddala & Miller, 1989). It is needful to note that the concept of adverse selection or unfavorable selection was first coined by Chicago University economist Carlos C. Closson in the article “*Social selection*” in 1896 (Closson, 1896, p. 462).

(1) Problems of Adverse Selection or Hidden Information : Adverse selection indicates that the commodities with adverse features will be substituted for the commodities with favorable features in the market with asymmetric information by the price mechanism, and eventually, no market will exist at all. This means that the commodities with adverse features will drive out the commodities with favorable features from the market with asymmetric information by the price mechanism leading to the eventual non - existence of the market. For example, in the second-hand car market, the sellers possess more information about the real quality of the cars, and they do not want to disclose the true quality of the cars to the less informed buyers, since the sellers have an intrinsic propensity to exploit (or to gain more advantage from) the less informed buyers. In consequence, the less informed buyers are compelled to buy the commodities with adverse features through the price mechanism, and eventually, such price mechanism rules out the existence of the second-hand car market. This is called the adverse selection in the second-hand car market. From the example of the second-hand car market, it can be pointed out that adverse selection is such a market phenomenon by which the less informed buyers are affected by three sorts of adversity: (a) the buyer is adversely informed by the better informed seller, (b) the adversely informed buyer is compelled to buy the commodity with adverse (or undesired) features, and (c) the adversely informed buyer, buying the commodity with adverse (or undesired) features, enjoys adverse (or less-favorable) gain from market exchange compared to the seller's gain, since the seller enjoys the dual gain : profit from sale and extra-profit from his “dishonesty” (indicated by the non-disclosure of the hidden characteristics of the commodity bought and sold). All the foregoing three sorts of adversities enjoyed by the adversely informed buyer constitute the “cost of buyer's (partial or perfect) ignorance.”

(2) Problems of Moral Hazard or Hidden Action : On the contrary, moral hazard is a market phenomenon, where one market participant (say, A) fails to observe, discover, or identify the decisionized action/activity of the other market participant (say, B) in the post-purchased position or period (or after the commodity is bought) owing to asymmetry of information, and in consequence, one market participant (say, B) passes the cost of his/her altered decisionized action/activity on to the other market participant (say, A) after the commodity is bought. For example, the individuals, who have purchased insurance for cars, confront the problem of moral hazard in the insurance market for cars with asymmetric information. In the insurance market for cars, the insurance companies are the sellers, while the car-owners are the buyers of the insurance for cars. In such a market, the sellers (insurance companies) are less informed than the buyers (car-owners) about the nature of car-driving (careful or careless car-driving) and the condition (good or bad condition) of the car insured after the car is bought. A person, who has purchased insurance for a car, may drive the car carelessly, since if any accident occurs for his/her carelessness, he/she knows that the cost of such an accident will be borne by the insurance company, not by himself/herself. In consequence, the careless car owners will purchase more insurance for cars, while the careful car owners will be compelled to purchase less insurance for cars, and eventually, the size of the insurance market for cars will be reduced or ruled out through the price mechanism of the insurance market for cars. In better words, the careless car owners will be substituted for the careful car owners in the insurance market for cars, and eventually, the existence of such a market will be ruled out by the market mechanism.

(3) Consequences of Asymmetric Information : The consequences of asymmetric information can be summarized by the following points :

(i) The market for the commodity with adverse features is substituted by the market for the commodity with favorable features.

(ii) The market cannot function efficiently or achieve social optimality. It is needful to note that all efficient things are effective, but the converse is not true.

(iii) The size of the market is reduced or ruled out.

(iv) In the market with asymmetric information, the exploitation of the "weaker information holder" by the "stronger information holder" is inevitable.

(v) "Dishonest dealings" tend to drive "honest dealings" out of the market. The "cost of dishonesty" lies not only in the amount by which the purchaser is cheated. The cost also must include the loss incurred from driving legitimate businesses out of existence. Dishonesty in business is a serious problem in underdeveloped countries (Akerlof, 1970).

(vi) The "high cost of ignorance" will be borne by the weaker informed market participants.

(vii) In economic exchange or transaction, in which asymmetric information is congealed, the stronger informed participant has the ability to gain more advantage from the exchange, while the weaker informed participant gains less advantage.

(viii) By analogy of Akerlof (1970), it can be emphasized that asymmetric information may create "illegal markets" (Beckert & Wehinger, 2013). Markets are illegal if the product itself or the exchange of it violates legal stipulation. Illegality deprives actors of the legal protection of property rights provided by the state for legal market transactions and limits their access to business strategies and organizational forms. In the absence of a stable legal framework and credible enforcement of contracts, long-term productive investment becomes impossible. "Illegal markets" should not be confused with the "informal economy." Illegal enterprises involve the production and commercialization of goods, which are defined in a particular place and time as illicit, while informal enterprises deal, for the most part, with licit goods. Problems of asymmetric information show up in illegal markets much more forcefully than in legal markets because goods are not subject to administered quality regulations – such as safety regulations and quality standards. The buyer of a counterfeit medication, for instance, has no reliable information on the effective substances in the product. At the same time, suppliers are excluded from offering the "signals of reputation" used in legal markets. There are no legally enforceable warranties or damage compensation (Beckert & Wehinger, 2013).

(ix) Uncertainty regarding product quality may be accepted by the customer out of either desperation or "deliberate ignorance," which can emerge from a lack of an alternative legal market for the product (e.g. organ transplantation) or a lack of the financial means to buy the licit product (e.g. fake medication). Deliberate ignorance can be expected if the value of the product emerges primarily from symbolic qualities, which are visible to the customer (Beckert & Wehinger, 2013).

(x) Cheating and fraudulent practices undermine the efficiency of the markets.

(4) Remedies for Asymmetric Information - Government vs Market : In order to reduce or rule out the consequences of asymmetric information, a rethinking of the relationship between markets and governments is inevitable. Hence, the crucial question is - what is the role of governments in reducing or ruling out asymmetric information in the markets ?

In a more globalized and complex economy, governments have fewer levers to pull, and these levers are less potent than before. Neither "market fundamentalism" nor "central planning" has worked. Yet, one thing is certain: the choice is not between big government and small government, it is about creating an effective government. What matters is what governments do, not how big they are. The size of governments may well have to shrink. But the responsibilities of governments may well have to expand - to enable, regulate, stabilize, and legitimatize markets so they can work better (Menon, 2012).

Cicero's Examples of Asymmetric Information by Walter Miller (1913)

Example 1 : Trade of Grain

In his *On Duties* (*De Officiis*), published in 44 BC, Marcus Tullius Cicero (106 - 43 BC) wrote the following passages:

(1) Expediency vs. Moral Rectitude in Business Relations : As I said above, cases often arise in which expediency may seem to clash with moral rectitude, and so, we should examine carefully and see whether their conflict is inevitable or whether they may be reconciled. The following are problems of this sort :

> Suppose, for example, it is a time of dearth and famine at Rhodes, with provisions at fabulous prices; and suppose that an honest man has imported a large cargo of grain from Alexandria and that to his certain knowledge also several other importers have set sail from Alexandria, and that on the voyage, he has sighted their vessels laden with grain and bound for Rhodes; is he to report the fact to the Rhodians or is he to keep his own counsel and sell his own stock at the highest market price ? I am assuming the case of a virtuous, upright man, and I am raising the question how a man would think and reason who would not conceal the facts from the Rhodians if he thought that it was immoral to do so, but who might be in doubt whether such silence would really be immoral. (Miller, 1913, p. 319)

(2) Diogenes vs. Antipater : In deciding cases of this kind, Diogenes of Babylonia, a great and highly esteemed Stoic, consistently holds one view; his pupil Antipater, a most profound scholar, holds another. According to

Antipater, all the facts should be disclosed, that the buyer may not be uninformed of any detail that the seller knows ; according to Diogenes, the seller should declare any defects in his wares, in so far as such a course is prescribed by the common law of the land ; but for the rest, since he has goods to sell, he may try to sell them to the best possible advantage, provided he is guilty of no misrepresentation.

"I have imported my stock," Diogenes's merchant will say, "I have offered it for sale ; I sell at a price no higher than my competitors – perhaps even lower, when the market is overstocked. Who is wronged ?" (Miller, 1913, pp. 319 - 321).

(3) Is Concealment of Truth Immoral ? The following extracts have been taken from Miller (1913, pp. 321 - 323):

> "What say you?" comes Antipater's argument on the other side :
>
> It is your duty to consider the interests of your fellow-men and to serve society ; you were brought into the world under these conditions and have these inborn principles which you are in duty bound to obey and follow, that your interest shall be the interest of the community and conversely that the interest of the community shall be your interest as well ; will you, in view of all these facts, conceal from your fellow-men what relief in plenteous supplies is close at hand for them ?
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> "It is one thing to conceal," Diogenes will perhaps reply :
>
> Not to reveal is quite a different thing. At this present moment, I am not concealing from you, even if I am not revealing to you, the nature of the gods or the highest good; and to know these secrets would be of more advantage to you than to know that the price of wheat was down. But I am under no obligation to tell you everything that it may be to your interest to be told.
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> "Yes," Antipater will say, "but you are, as you must admit, if you will only bethink you of the bonds of fellowship forged by nature and existing between man and man."
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> "I do not forget them," the other will reply, "but do you mean to say that those bonds of fellowship are such that there is no such thing as private property? If that is the case, we should not sell anything at all, but freely give everything away."
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> In this whole discussion, you see, no one says, "However wrong morally this or that may be, still, since it is expedient, I will do it." However, the one side asserts that a given act is expedient, without being morally wrong, while the other insists that the act should not be done, because it is morally wrong. (Miller, 1913, pp. 321 - 323)

Example 2 : Sale of House

The following extracts have been taken from Miller (1913, pp. 323 - 325) :

(1) A Vendor's Duty :

> Suppose again that an honest man is offering a house for sale on account of certain

undesirable features of which he himself is aware but which nobody else knows ; suppose it is unsanitary, but has the reputation of being healthful ; suppose it is not generally known that vermin are to be found in all the bedrooms ; suppose, finally, that it is built of unsound timber and likely to collapse, but that no one knows about it except the owner ; if the vendor does not tell the purchaser these facts but sells him the house for far more than he could reasonably have expected to get for it, I ask whether his transaction is unjust or dishonourable.

"Yes," says Antipater. It is ; for to allow a purchaser to be hasty in closing a deal and through mistaken judgment to incur a very serious loss, if this is not refusing 'to set a man right when he has lost his way' (a crime which at Athens is prohibited on pain of public execration), what is ? It is even worse than refusing to set a man on his way : it is deliberately leading a man astray.

Can you say, answers Diogenes, that he compelled you to purchase, when he did not even advise it ? He advertised for sale what he did not like ; you bought what you did like. If people are not considered guilty of swindling when they place upon their placards FOR SALE : A FINE VILLA, WELL BUILT, even when it is neither good nor properly built, still less guilty are they who say nothing in praise of their house. For where the purchaser may exercise his own judgment, what fraud can there be on the part of the vendor ? But if, again, not all that is expressly stated has to be made good, do you think a man is bound to make good what has not been said ? What, pray, would be more stupid than for a vendor to recount all the faults in the article he is offering for sale? And what would be so absurd as for an auctioneer to cry, at the owner's bidding, 'Here is an unsanitary house for sale ?'

(2) Cicero's Decision in this Case : The following extract has been taken from Miller (1913, pp. 325 - 327) :

In this way, then, in certain doubtful cases, moral rectitude is defended on the one side, while on the other side, the case of expediency is so presented as to make it appear not only morally right to do what seems expedient, but even morally wrong not to do it. This is the contradiction that seems often to arise between the expedient and the morally right. But I must give my decision in these two cases ; for I did not propound them merely to raise the questions, but to offer a solution. I think, then, that it was the duty of that grain-dealer not to keep back the facts from the Rhodians, and of this vendor of the house to deal in the same way with his purchaser. The fact is that merely holding one's peace about a thing does not constitute concealment, but concealment consists in trying for your own profit to keep others from finding out something that you know, when it is for their interest to know it. And who fails to discern what manner of concealment that is and what sort of person would be guilty of it? At all events he would be no candid or sincere or straightforward or upright or honest man, but rather one who is shifty, sly, artful, shrewd, underhand, cunning, one grown old in fraud and subtlety. Is it not inexpedient to subject oneself to all these terms of reproach and many more besides ?

(3) Concealment of Truth vs. Misrepresentation and Falsehood : The following extracts have been taken from Miller (1913, pp. 327 - 329) :

> If, then, they are to be blamed who suppress the truth, what are we to think of those who actually state what is false? Gaius Canius, a Roman knight, a man of considerable wit and literary culture, once went to Syracuse for a vacation, as he himself used to say, and not for business. He gave out that he had a mind to purchase a little countryseat, where he could invite his friends and enjoy himself, uninterrupted by troublesome visitors. When this fact was spread abroad, one Pythius, a banker of Syracuse, informed him that he had such an estate ; that it was not for sale, however, but Canius might make himself at home there, if he pleased ; and at the same time, he invited him to the estate to dinner next day. Canius accepted. Then Pythius, who, as might be expected of a money-lender, could command favours of all classes, called the fishermen together and asked them to do their fishing the next day out in front of his villa, and told them what he wished them to do. Canius came to dinner at the appointed hour; Pythius had a sumptuous banquet prepared; there was a whole fleet of boats before their eyes; each fisherman brought in turn the catch that he had made; and the fishes were deposited at the feet of Pythius.
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> "Pray, Pythius," said Canius thereupon, "what does this mean? – all these fish? – all these boats?"
>
> "No wonder," answered Pythius; "this is where all the fish in Syracuse are ; here is where the fresh water comes from ; the fishermen cannot get along without this estate."
>
> Inflamed with desire for it, Canius insisted upon Pythius's selling it to him. At first, he demurred. To make a long story short, Canius gained his point. The man was rich, and, in his desire to own the countryseat, he paid for it all that Pythius asked; and he bought the entire equipment, too. Pythius entered the amount upon his ledger and completed the transfer. The next day, Canius invited his friends ; he came early himself. Not so much as a thole-pin was in sight. He asked his next-door neighbor whether it was a fisherman's holiday, for not a sign of them did he see.
>
> "Not so far as I know," said he, "but none are in the habit of fishing here. And so I could not make out what was the matter yesterday."

(4) Criminal Fraud : The following extract has been taken from Miller (1913, pp. 329 - 331) :

> Canius was furious; but what could he do ? For not yet had my colleague and friend, Gaius Aquilius, introduced the established forms to apply to criminal fraud. When asked what he meant by "criminal fraud," as specified in these forms, he would reply: "Pretending one thing and practicing another" – a very felicitous definition, as one might expect from an expert in making them. Pythius, therefore, and all others who do one thing while they pretend another are faithless, dishonest, and

unprincipled scoundrels. No act of theirs can be expedient, when what they do is tainted with so many vices.

Then an honest man will not be guilty of either pretence or concealment in order to buy or to sell to better advantage……..We must, therefore, keep misrepresentation entirely out of business transactions : the seller will not engage a bogus bidder to run prices up nor the buyer one to bid low against himself to keep them down ; and each, if they come to naming a price, will state once for all what he will give or take. (Miller, 1913, p. 331)

"To conclude, then, it is never expedient to do wrong, because wrong is always immoral; and it is always expedient to be good, because goodness is always moral" (Miller, 1913, p. 335).

With this verdict, he established the principle that it was essential to good faith that any defect known to the vendor must be made known to the purchaser. If his decision was right, our grain dealer and the vendor of the unsanitary house did not do right to suppress the facts in those cases. (Miller, 1913, p. 337)

Now reason demands that nothing be done with unfairness, with false pretence, or with misrepresentation. Is it not deception, then, to set snares, even if one does not mean to start the game or to drive it into them ? I find, is neither by custom accounted morally wrong nor forbidden either by statute or by civil law ; nevertheless, it is forbidden by moral law. For there is a bond of fellowship. (Miller, 1913, p. 339)

"It is not in accord with nature that anyone should take advantage of his neighbour's ignorance. And no greater curse in life can be found than knavery that wears the mask of wisdom" (Miller, 1913, p. 343).

If a man knowingly offers for sale wine that is spoiling, ought he tell his customers? Diogenes thinks that it is not required; Antipater holds that an honest man would do so. These are like so many points of the law disputed among the Stoics.

In selling a slave, should his faults be declared – not those only which the seller is bound by the civil law to declare or have the slave returned to him, but also the fact that he is untruthful, or disposed to gamble, or steal, or get drunk ? (Miller, 1913, p. 367)

The one thinks such facts should be declared, the other does not. "If a man thinks that he is selling brass, when he is actually selling gold, should an upright man inform him that his stuff is gold, or go on buying for one shilling what is worth a thousand?" (Miller, 1913, p. 367).

Concluding Comments

Cicero's description of "asymmetric information" is based on the "morality of market," which has been demonstrated by Prasad (1999), and in this sense, Cicero can be credited with the originator of the "Economics of Morality" (Gorga, 2015). Besides, asymmetry of information has been elevated by Cicero from positive to normative or moral perspective. On the contrary, the five Nobel laureate economists have confined their analysis of asymmetric information within the orbit of positive economics. They also have failed to realize the role of wisdom in the market mechanism. If all the individuals, including the market participants in the world, are equipped with "true wisdom, " then asymmetry of information or knowledge will be wiped out from the markets in the capitalist systems. As a result, the existing or persistent market inefficiency will also be wiped out, and then, global capitalism will be sustainable because, "wisdom does not teach our fingers, but our minds" (Hazlitt & Hazlitt, 1984, p. 15). This means that information and/or knowledge may be asymmetric, but wisdom is symmetric or unique. While knowledge has the ability to discover the "causes, consequences and cures" of asymmetry of information in the markets, wisdom demands the "moral justification" of asymmetric information in the markets, since the "morality of market" is backed up by wisdom. Hence, "Cicero's invention of Asymmetric Information in 44 BC" should be included in *An Eponymous Dictionary of Economics: A Guide to Laws and Theorems Named After Economists* by Julio Segura and Carlos Rodriguez Braun (2004).

The complementary relationship among teaching, learning, and research will question or challenge the "established knowledge or ideas," which will induce the research-intensive teachers to invent "new knowledge or ideas" by their research activities. The new knowledge or ideas realized from the research activity will encourage the teachers to substitute "new curricula" for "established curricula" in the economic education. Thus, the contribution of Cicero as the first predecessor of asymmetric information should be included in the microeconomic textbooks.

The interaction among teaching, learning, and research activities in the future will determine whether *The End of Asymmetric Information* (2001), written by the California University economist James C. Robinson, is inevitable or not (Robinson, 2001).

The Nobel Prize may be treated as the reward for optimal or super-optimal knowledge, but not the reward for optimal or super-optimal wisdom of the researchers.

In the instantaneously electronic communicative society, information and knowledge are increasing at an increasing rate, while wisdom is either decreasing or increasing at a decreasing rate. In such a situation, the prospective researchers should engage themselves to examine the impact of wisdom on market vis-à-vis the impact of market on wisdom in order to reduce or rule out market inefficiency.

An impression persists that market erodes morality. However, San Jose State University economist Fred E. Foldvary (2013) claimed that the market is a system of voluntary exchange, and voluntariness implies morality. Hence, the market is inherently moral.

The limitations of this article are as follows: (a) though it has disclosed the first predecessor of asymmetric information as well as adverse selection, it fails to discover the first predecessor of moral hazard, and (b) it fails to examine the impact of market on wisdom and the impact of wisdom on the market.

By any criterion, the foregoing five Nobel laureate economists were absolutely unaware or ignorant of the contribution of Cicero as the first predecessor of asymmetric information. However, their unawareness or ignorance does not establish the newness of truth.

"Ignorance is the first requisite of the historian – ignorance, which simplifies and clarifies, which selects and omits, with a placid perfection unattainable by the highest art."

….Giles Lytton Strachey (1880-1932), British writer and critic

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