DID YOU SAY DEBIT?

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Abstract

This paper, inspired by my seventeen years of teaching accounting, has a dual purpose: while questioning the relevance of some of the content of certain accounting textbooks, it also explores at length the concept of debit and credit, used as an example to illustrate the necessity to explain the underlying principles as opposed to merely emphasizing 'how' to apply accounting rules. In other words, questioning the validity of some textbooks' excerpts with regard to 'debit/credit' becomes a pretext to reflect on it. Consideration of this concept requires taking a look at the history of negative numbers and at the origin of double entry bookkeeping. It will also make it clear that "while rules must be learnt, at some stage the reason for them must be made clear; if this is not done it has little educative value" (Russell, 1924, p. 164).

Key Words: *debit, credit, double entry bookkeeping, negative numbers.*

Introduction

Accounting as we know it today did not come into existence until the Italian Renaissance – a period of great cultural changes in Europe, which, stretching from the late 1300's until the early 1500's, marked the transition between Medieval and Early Modern Europe. As a trade practice, however, accounting is as old as civilization and can be traced as far back as 3200 BC. It has played a significant role in the world's economic and cultural development.

For example, it is accountants who invented writing (Parker, 1990). Around the 3rd century BC, the ancient Sumerian bookkeepers used small clay balls called tokens to count and keep track of one's existing wealth. From the simple tokens, complex tokens evolved around 3700 BC. Later, with stylized signs, all information could be recorded directly on tablets, eliminating the need for tokens. From thereon, writing developed - invented by scribes serving as accountants (Giroux, 2008).

Accountants developed money and banking. They were instrumental in developing the capital markets so essential to capitalism. "Accounts were used in certain ways and for certain purposes, and had the effect of rationalizing and methodizing business life." (Parker, Op. Cit. p. 100) With the notion of profit reduced to an abstraction defined by scientific accounting, the concept of capital was possible. Accounting became a scientific instrument in the hands of entrepreneurs in the rational pursuit of profit.

Accountants also created the double-entry bookkeeping system that fueled the Italian Renaissance. As emphasized in various degrees by economic historians, "systematic bookkeeping (i.e., double-entry bookkeeping) has been essential to the development and rise of modern capitalism" (Yamev, 1949). "Citing Robertson (1933), Yamev concluded that double-entry bookkeeping, to the extent that it was adopted in practice, "could bring order to and systematize such records [records of transactions] and so contribute towards the 'methodizing' of business life." (Ibid p. 110)

One of the fundamental accounting concepts is that of debit and credit. At the core of the teaching of accounting, it is invariably part of one's learning experience and, as such, often associated with painful learning moments. In fact, few terms turn out to be as deceptive as 'debit' and 'credit' whose lay meaning, which we all easily understand, has little to do with its accounting signification. This author surmises that some of the difficulties encountered by students – and the often-made claim that neither

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the training nor the education are satisfactory - may also have to do with some of the textbooks approach to it, which often fails to emphasize its underlying principles, as will be shown in part one.

Solely teaching accounting methods has merits only to the extent that it is combined with a presentation of the underlying principles themselves. It is critical indeed that teaching not merely come down to technical acquisition and engenders instead "educationally developed individuals with a sophisticated capacity to enquire, reason, conceptualize and evaluate" (Gray, 1994). While, for didactic purposes, this paper will focus on debit and credit, the approach advocated by Gray should apply across the board to all accounting principles if students are not "to experience intellectual and moral atrophy" (McPhail, 1996).

Looking back at the origins of the debit/credit concepts through the prism of negative numbers, parts two and three will thus elaborate on its development and expound its underlying principles. Part four will then address the issue of why the terms 'debit' and 'credit' are used and at the implications thereof. This paper will conclude by reiterating the need for a teaching approach that incorporates the vast accounting lore – that of debit and credit in particular - as it will enhance autonomous thinking, ensure full comprehension of the material, and provide a broader perspective on the subject matter.

1. Introducing the Concepts of Debit and Credit

Let's start with some excerpts from accounting textbooks on the notions of 'debit' and 'credit'. In response to the question "what are debits and credits?" one book stated, for instance, that "accountants use these terms simply to describe the left and right sides of a ledger account. An amount recorded on the left side of a ledger account is called a debit or a debit entry. Conversely, an amount entered on the right side of an account is called a credit or a credit entry" (Meigs, 1990). Such pragmatic, directional references to explain a sophisticated -

and central - accounting concept are not isolated and in fact appear in a number of textbooks. In one of those, for example, it is stipulated that "the terms debit means left, and credit means right. They are commonly abbreviated as *Dr.* for debit and *Cr.* for credit. These terms are supposed to be directional signals: they indicate which side of a T account a number will be recorded on. Entering an amount on the left side of an account is called debiting the account; making an entry on the right side, crediting the account" (Weygandt, 2006).

Another one, promisingly starting with a somewhat more sophisticated approach, nonetheless ended up resorting to the same ubiquitous directional explanation: "The dual effect of a business transaction is recorded by means of the later double-entry bookkeeping system […] The way in which the double-entry system operates in the United Kingdom is to use the left-hand side of the account for debits and the right-hand side of the account for credits whereas he double-entry system in the United States has the debits on the right-hand side and the credits on the left-hand side" (Chadwick, 1996).

Sure enough, as Fleming (1998) pointed out, "the terms 'debit' and 'credit' can be confusing, probably because they have been adopted into everyday language and are used in ways which are inconsistent with their utilization in accounting. Indeed, "students beginning a course in accounting often have erroneous notions about the meanings of the terms 'debit' and 'credit'. For example, to some people unacquainted with accounting, the word credit may carry a more favorable connotation than does the word debit. Such connotations have no validity in the field of accounting" (Meigs, 1990). Clearly, for some textbook writers, such a high risk of confusion leads to – and justifies - pragmatic explanations. After cautioning students about the misleading usage of these terms, Meigs (Ibid.), for instance, feels compelled to use the notions of left and right to elaborate on the meaning of debit and credit:

"Accountants use debit to mean an entry on the left-hand side of an account, and credit to mean an entry on the right-hand side. Thus, 'debit' and 'credit' simply mean left and right without any hidden or subtle implications."

Another explanation often encountered in textbooks is to analogize these two terms to verbs. A few examples will bring this point home. "Accountants also use the words 'debit' and 'credit' as verbs. The act of recording a debit entry is called debiting the account; recording a credit entry is called crediting the account" (Ibid p. 43). "The first thing to realize is that they are just words. Just as the words 'increase' and 'decrease' cause no confusion, neither should 'debit' nor' credit'" (Fleming, 1998). The list of accounting textbooks using such directional and verbal references is long and quotes from them on the concept of debit and credit could fill many pages. While this pragmatic definitional approach can undoubtedly be helpful, it does not, however, provide a thorough understanding of these fundamental notions since it fails to adopt a historical mathematical approach to explain them. Specifically resorting to the history of mathematics and, in particular, the initial rejection of negative numbers by mathematicians will provide a clearer understanding of these concepts. In other words, contrary to what these textbooks assert, it is also necessary to tackle the study of 'debit' and 'credit' in terms of 'increase' or 'decrease' and not simply in directional terms. Such an approach was adopted for instance by Lin (1984).

When referring to accounting terms, Lin does not use the terms 'debit' and 'credit' as such. Bound by the constraints of the Chinese language, he uses two characters instead: 借 and 方 (*jie* and *fang*), which literally translate as '*the party* (fang) *who borrows* (jie)'. However, the term 借 (jie) itself can be used to mean both 'to lend' or 'to borrow'. It is therefore also used in the sense of 借出 (*jiechu*), which literally translates as '*the party who lends*'. By extension, 借方 (*jiefang*), then becomes synonymous with

'that which is owed <u>to</u> the company' or, in accounting parlance, with 'accounts receivable'.

On the other hand, 貸 and 方 (*dai* and *fang*) refer to the 'credit side'; 貸 *(dai)* is employed in the sense of 借入 (*jieru*), which translates as 'to borrow from'. Again, by extension, 貸方 (*daifang*), then becomes synonymous with 'that which is owed <u>by</u> the company' or, in accounting parlance, with 'accounts payable'.

Lin also specifies that any increase in assets and expenses is a debit and any decrease thereof a credit, and that any increase in liablity and revenue is a credit and any decrease thereof a debit. In other words, any increase/decrease, for example, in revenue will be recorded as a credit/debit, and any increase/dececrease in expense as a debit/credit. As we shall see later, this approach to these fundamentals of accounting can be traced back to Pacioli (1446–1517), widely considered to be the father of double entry bookkeeping. However, prior to exploring his contribution, we first need to go further back and consider the evolution of negative numbers – and their rejection by mathematicians in particular – and also the concomitant emergence of a system closely akin to double-entry bookkeeping.

2. *The Historical Origin: The Rejection of Negative Numbers*

The historical origin of the use of the words 'debit' and 'credit' in accounting goes back to the days of single-entry bookkeeping in which the chief objective was to keep track of amounts owed by customers (debtors) and amounts owed to creditors. 'Debit,' is Latin for 'he owes' and 'credit' Latin for 'he trusts'. Thus, debiting a customer's account simply meant recording the amount that a customer owed a vendor and crediting that vendor's account, recording an amount for which the vendor (creditor) trusted the customer (Grant (1964).

Wondering why we have 'debits' and 'credits', Peeters and Emery (1978) concluded, after surveying the history of negative numbers: "apparently, because there was no negative." In

other words, what is argued is that the terms 'debit' and 'credit' were created out of a need for a bookkeeping system free of negative balances.

Typically, the fundamental equation of the balance sheet of a given company is written as: *A (assets) = L (liabilities) + OE (owner's equity)*. However, it can also be expressed as *A − (L + OE) = 0*; the latter equation explicitly illustrating what is commonly referred to in textbooks as liabilities being 'the future sacrifice of assets'.

The use of the traditional equation *A = L + OE* "wherein both the debit balance and credit balance accounts are positive, developed as the result of mathematical considerations. This belief is based on the idea that mathematicians did not accept the concept of negative numbers when bookkeeping methods were being developed" (Peeters, 1978). Indeed, "negative numbers were used in commerce long before mathematicians accepted them" (Ijiri, 1989). "Though [negative numbers] had become known in Europe through Arab texts, most 16th and 17th century mathematicians did not accept them as numbers, or if they did, would not accept them as roots of equations" (Kline, 1972).

One of the first algebraists to accept negative numbers was Thomas Harriot (1560-1621), who occasionally placed a negative number by itself on one side of an equation. "Thus, medieval merchants accepted the use of negative numbers only as something that was totally different from positive numbers, necessitating entries in different columns (Kline, 1972). Still, in the very early 1800's, negative numbers had not yet acquired their full status as numbers. In *Géometrie de la position* (1803), for instance, Lazare Carnot (1753-1823) wrote that "to really obtain an isolated negative quantity, we should subtract an actual quantity from zero, in other words, clear away something from nothing; an impossible operation […] the usage of negative numbers leads to erroneous conclusions" (yvan.monka@ac-strasbourg.fr). Acceptance of negative numbers by mathematicians was not to come until 1821 and Augustin Louis Cauchy's

definition of relative numbers as numerical parts preceded by the '+' or '−' signs in his *Cours d'analyse de l'école royale polytechnique,* a prominent and leading French institution of higher learning. Yet, by that time, negative numbers had long been accepted in the commercial sphere.

Chinese were the first to use negative numbers for commercial purposes (Cajori,1919). As described in "九章算术" (*Nine Chapters on Arithmetics)* compiled by generations of scholars from the tenth to the second century B.C., Chinese merchants used red rods for positive numbers to record what they were owed by others and black ones for negative numbers to record what they owed others, as early as the first century A.D. A long evolution of the Greek concept of numbers then ensued. For them, numbers represented quantities essentially associated with 'substance' (so-called *res*): "Quantity and quality, space and time determinations do not exist in and for themselves but merely as properties of absolute realities which exist by themselves. The category of relation especially is forced into a dependent and subordinate position by this fundamental metaphysical doctrine of Aristotle" (Cassirer, 2003).

Next, the concept of pure numbers as having a symbolic signification in abstract mathematics emerged, particularly under the influence of Viète (1540-1603). A mathematician well-known for his work on mathematical symbolism, he started to associate numbers with the form of a substance as opposed to solely with that substance. Thanks to this advance, negative numbers could be dissociated from the substance and exist independently. His claims were later taken up by Stevin (1548-1620), a Flemish mathematician, who endorsed the principle that numbers "are linked to themselves only" (Hadden, 1994) cited in Nepomuceno (1999). He also asserted the similarity of the structure of positive and negative numbers and that of '*havere*' (to have) and '*dare*' (to give), i.e. debit and credit.

This came as a departure from Brahmagupta (598-698), an Indian mathematician, who as early as 628 A.D. had advocated the use of negative numbers – albeit, only in so far as they represented debts. Why? A negative number associated with a substance did not mean that the substance would also disappear. Take the case of a merchant having a debt to pay, for example, $120, and having some goods or cash (substance) on hand worth $50. To settle his debt, he will transfer to his creditor some cash or goods. In other words, he will sacrifice (give up) some of his assets. In this case, however, he will not have sufficient assets (either cash or goods) to repay his debt in full and will thus have a negative balance ($50 - $120 = - $70). That negative balance represents his debt and the debt itself represents the sacrifice of future assets - that will not disappear - but will change hands and remain substantive.

The concept of numbers representing substance was of paramount importance to merchants since 'merchandise' is the essence of trade. Thus, the social duality – between '*havere*' and '*dare*' - of the transaction represented in terms of positive and negative numbers became possible for the pre-moderns as its formulation was dressed with social signification. The 'proprietorship' of an asset ended where the proprietorship of the receiver started.

Brahmagupta's claim was countered by Omar Khayyam (A.D. 1045-1123), who rejected the existence of negative numbers to represent debts since, according to him, such use only led to errors. Arabs also rejected negative numbers even though they knew of their use in India (Cajori, 1919) cited in Nepomuceno, Op. cit.). It was not until the end of the thirteenth century and the so-called Italian "Masters of Calculation" in particular, that the use of negative numbers for commercial purposes was given a new impetus. One of the main tasks these masters set for themselves was to apply mathematical knowledge to commerce and banking. Much of the ground work was laid down by Leonardo Fibonacci (1175-1250), an Italian scholar, who

in his 1202 mathematical treatise, *Liber Abaci* had expounded Brahmagupta's view and claimed that negative numbers should only be used when representing debts. His book was well received among the Merchants' Houses in Pisa, Genoa, and Venice.

Fibonacci's influence was to be long-lasting and extended beyond Italy to reach the French Renaisssance (1450-1500). Nicolas Chuquet (1445-1488), among others, followed in Fibonacci's footsteps. In *Triparty* (1484), he endorsed the validity of negative numbers in so far as they represented debts. Chuquet's treatise preceded Pacioli's major work, *Summa (1494)*, regarded as pivotal to the development of accounting, by ten years (Nepomuceno, Op. Cit.).

3. Double-Entry Bookkeeping

When dealing with pure mathematics, Pacioli, following the trend of the time, rejected the use of negative numbers except to represent debts (Peeters, 1978). However, when dealing, as part of his mandate as a scholar, with mathematics as applied to accounting and trade, he dealt with the issue in a circumvented way, institutionalizing the double-entry system. Still, while making the double-entry system systematic, Pacioli never formally endorsed negative numbers whose use he avoided at all costs (Ibid., p. 426).

Some scholars, however, have argued that Pacioli did indeed refer to negative numbers, citing its use of '*puro meno*' (pure minus) in the margin of his treatise (Scorgie, 1989). Still, a mere reference to something does not amount to an endorsement. As Lazare Carnot (1753-1823) noted, the usage of negative numbers did not come to be accepted until the early 1800's. Moreover, as Bernstein (1983) claimed, "data or evidence does not come marked as 'falsification" (p. 71).

For Pacioli, the main purpose of bookkeeping was to provide a trader with data readily available regarding his assets and liabilities. With these practical considerations in mind - and his efforts not to use negative numbers - he thus

recommended that all business transactions be recorded in a systematic and methodological way: *Disonno (como e ditto) li termini usitati ī ditto giornale. L'uno e ditto. Per. E l'altro e ditto. A. Per sempre se dinotta el debitore...E per lo A se dinotta lo creditore* (in the original), which can roughly be translated as: "as to the terms used in the said journal, one is 'per' and the other is 'a'. 'Per' denotes the debtor…and by 'a' the creditor is denoted" (Distinto nona, Tractatus XI, Capitulo primo *ff*.). This 'systematic way' of recording business transactions referred to debit and credit.

Developed by Chinese, briefly adopted by Indians, later endorsed by Fibonacci, Chuquet, and the like, and subsequently popularized by Pacioli, negative numbers appear to have only been accepted as physical and socially-measurable quantities and not as solutions to equations. While they could not find their place in abstract mathematics, they were accepted as social transactions.

Pacioli articulated one of the fundamental rules of double-entry bookkeeping, namely that there is no debtor without creditor: *Si deve specificare el debitore e poi' īmediate elsuo creditor* (in the original), which literally translates as: "one must specify the debtor and then immediately name the creditor" (Ibid.). Such a principle would ensure that all positive assets minus all negative assets would equal zero, i.e. all '+' and '−' would equal zero. In short, investment equals the financing thereof. Pacioli went on to add that *ptita: qlladel debitore. ponere ala man sinistra. E qlla del creditore, ala man dextra* (in the original), literally, "debits were written on the left side of an account and credits on the right."

Positive and negative numbers were perceived as representing different substances which needed to be separated into two columns. The so-called 'Masters of calculation' had physically separated positive and negative numbers and written them in different columns in the belief that posting assets and liabilities in separated columns was the best way to know the ensuing net wealth. Positive numbers were associated with debit and negative ones with credit. What one owned was represented by a positive figure and when taken away from one, by a minus (whatever was taken would decrease one's assets). Such practice, however, had not been systematized.

Another significant contribution from Pacioli is his description of the accounting procedures to be adopted when starting a business. Before opening a shop, it was considered necessary to make an inventory (*inventario*) that listed all the assets, which Pacioli described as: *la pecunia numerate e ogni altra faculta substentiale* (in the original), which in English translates as "cash and other tangible assets" and debts. In today's accounting jargon, this beginning inventory would be an opening statement of financial position, or a patrimonial situation, or yet simply an opening balance sheet. Thus, every category of goods would be listed in the inventory: for example, cash, jewelry, valuables, clothes, furnishings, buildings, etc, and also all the debts, such as borrowings, debts stipulating the creditors' names, etc. By posting inventory entries to the journal and then to the ledger, Pacioli initiated his readers into the accounting mechanics of double-entry: each journal entry would give rise to two entries in the ledger; one, a debit, the other, a credit.

It is clear then that Pacioli associated the possession of an asset with positive numbers called 'debit', and liabilities, with negative numbers called 'credit'. Figure 1 shows the inventory or opening balance sheet.
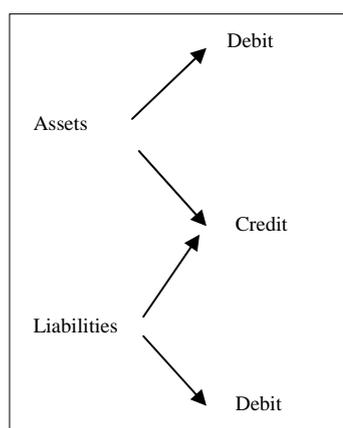
Figure 1: Sample of an 'inventario'

Assets (+) / Debit	Liabilities (-) / Credit
Xx	Xx
Xx	Xx
As there is no debit without credit, the accounting equation is $+ A − (L + OE) = 0$	

Source: Created by this author for this paper

The fundamental accounting equation in Figure 1 [+ A − (L + OE) = 0] shows that, as previously mentioned, a liability represents nothing but the future sacrifice of an asset since any minus liabilities will decrease any positive assets. The relationships between assets and liabilities can be presented as follows:

a) Any increase (+) of a positive asset (+) is a debit (+) since $+(+x) = +x$, which is a debit

b) Any decrease (−) of a positive asset (+) is a credit (−) since $-(+x) = -x$, which is a credit

c) Any increase (+) in negative liabilities (−) is a credit (−) since $+(-x) = -x$, which is a credit. b) and c) show that an increase in liabilities denotes a future decrease of assets. So, both are credits (−) since they have the same nature.

d) Any decrease (−) in negative liabilities (−) is a debit (+) since $-(-x) = +x$, which is a debit. a) and d) show that a decrease in liabilities cancels the corresponding sacrifices of assets. So, both are debits (+) since they have the same nature. As shown in Figure 2, schematically, we have:

Figure 2: Summary of asset and liability movement and corresponding debit and credit

Source: Created by this author for this paper

What Figure 2 implies is that, given that expenses are a break-down of the capital account,

[i.e. liabilities to the owner(s)], and that an increase in expenses entails a decrease in capital, any increase/decrease in expenses will be recorded by a debit/credit. Conversely, since revenues increase capital, any increase/decrease in revenues will be recorded by a credit/debit.

This brief summary of the impact of the development of negative numbers on the double-entry bookkeeping system has now come full circle. Still, one issue remains to be addressed: the choice of the terms 'debit' and 'credit'.

4. Why the Terms 'Debit' and 'Credit'?

When taking a look at the efforts in the existing relevant literature to popularize accounting, one is puzzled by the amount of contradicting – and misleading – statements on the meaning of these two fundamental accounting notions. For one thing, Pacioli himself never defined them. Yet, should he have?

There was no need to, since he was using his native language, a mixture of late Latin and vulgar Italian, in which the term *debitum*, the supine form of the verb *debēre* was self-explanatory. Since *debēre* means 'to owe', *debitum* refers to what 'is owed to'. Likewise, *creditum* as the supine of the verb *credĕre* ('to believe' and by extension 'to trust') refers to the liability one may incur as the result of this trust. It goes without saying that 'debit' and 'credit' are thus the short forms for *debitum* (the thing owed) and *creditum* (the thing entrusted that one owes). This then begs the question of who owes to whom and who trusts whom?

As obvious as the answer may seem to a modern mind, this question had no relevance in Pacioli's days as, in his times; 'debit' was understood to mean that the debit of the initial inventory belonged to the owner. Consequently, 'debit' meant the thing owed to the owner. And, of course, 'credit' meant the thing to be paid to the business creditor(s). While some comments state that 'debit' refers to *dare* (to give), others also state that 'credit' can refer to *dare*.

As Pacioli said, *El ǫ̈le ordenamēte io de mia mano ho scripto: o ho fatto scrivere dal tale. De*

tutti li miei beni:Ei Mobili: e Stati: Debiti: e Crediti che al mōdo mi ritronno (in the original) which can be roughly translated as: "This, which I have written with my hand in an orderly manner, or had somebody write. Of all my possessions, movable, unmovable: debits: and credits, that which I owe to others." In short, what Pacioli clearly spelled out is that 'debit' is 'what one has' and 'credit', 'what one has to pay'.

Coming back to the initial question raised, who owes to whom, the trouble is that Pacioli never had to make the distinction between a natural and legal person or, in lay terms, whether someone owns a business as a private entity or as a business entity. He never had to because at that time there was no 'business entity' concept. In other words, there was no clear-cut delineation between a business owner's possessions and those of the business itself. As a result, *debiti* specifically referred to 'what was owed to someone as the owner - the things that someone owned and used in his/her business activities as specified in his/her inventory. For the same reasons, *crediti* also specifically referred to 'what was owed by someone to creditors' – anything which someone had not given back yet because the creditors believed or trusted him/her (gave one credit).

The emergence of the business entity (legal person) concept is believed to be the result of the introduction of agency bookkeeping under which a principal's account was debited with the expenses incurred by that principal's agent and credited with the proceeds of the agency business (Yamey, 1949). This development resulted in a shift in the meaning of the terms 'debit/credit'. 'Debit' came to denote 'what was owed to the business, embodied in 'accounts receivable'. By the same process, 'credit' came to designate 'what was owed by the business,' embodied in 'accounts payable.' This is precisely what Lin (1994) and Grant (1964) also asserted.

It is important to bear in mind that the implementation of the double-entry system did not occur overnight but was instead slowly put into practice by practitioners. Until the agency concept was introduced, there was no need to justify any capital movement. Since the list of asset and liability accounts was not fully developed, many transactions were not recorded in a full double-entry fashion. The full double-entry system developed upon the realization that "partly for computational double-checking and partly for aesthetic reason, it would be nice if those single-account transactions could be filled with an artificial second account, or a 'residual account,' which could serve as a plug" (Ijiri, 1989, p.17). This plug account corresponds to today's owner's equity or capital account. With the introduction of the agency concept, thus came the need to show the reasons for a business's owner's capital to increase as the company's revenue increased or decreased depending on its expenditures. It is this development that is at the origin of the double-entry bookkeeping as it is known today.

Having said all this, it remains to tackle one of the side effects of the legal/natural person distinction on the meaning of debit and credit. When talking about debiting, for instance, talking about 'Mr. Smith's account receivable' in the business books, we understand that Mr. Smith is a debtor to the business (he owes something to the business). We understand it because a social relation has been developed, vested in the behavior of two personal accounts, i.e. an account receivable and account payable. However, it becomes less intelligible when we try to ascribe the same social relation onto non-personal accounts (nominal and real ones). For instance, if instead of debiting 'Mr. Smith's account receivable', we debit 'building account' as a result of the purchase of a building, there is no social relation anymore. But if we accept the fact that all asset accounts, such as the building account used in this example, may be transformed one day into accounts receivable when, for example, assets are sold on credit, we thus adhere to the notion that personal and non-personal accounts behave in the same fashion.

Similarly, all liability/capital accounts (whether or not personal) could basically be thought of as break-downs of accounts to be settled – to third-parties or to the owner. In other words, liability accounts *sensu lato*, being something to be paid off or worked off under various conditions, either in a near or remote future, also behave in a similar way. It all comes down to the fact that debit represents 'all that which a company has or will have' and credit, 'all that which a company has to pay to third parties or the owners by sacrificing assets'.

Conclusion

A close look at the explanations given to clarify the notions of debit and credit and double- entry bookkeeping reveals a dissonance between some of the teaching material in use and the rich findings of accounting research. The process of a long evolution, the concept of debit and credit needs to be grasped in its entirety and in all its subtleties. As this paper suggests, one way to do so is to take a journey back into time to explore the origin of double-entry bookkeeping and be fully cognizant of all its underlying principles while, at the same time, not fully disregarding pragmatic learning.

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