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Economic Analysis of Institutions: Nominalism and Definition by Effect

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Abstract

Neo-institutional economics covers various subject areas that are not the traditional domain of economics, while still employing the tools of economic analysis such as: rational choice theory and equilibrium theory. Many fields of study, including law, firms, property, etc., are characterised as efficient institutions. It is a flawed approach, because neo-institutionalism portrays past events, what Karl Mittermaier called *ex-post* facts, as if they were structural facts, or *ex-ante* facts. In Samuelson's revealed preference theory, choices (*ex-post* facts), are assigned a new name, viz. revealed preferences (*ex-ante* facts), and preferences are reduced to their effects. Neo-institutionalism follows Samuelson in this regard, defining things by their effect: defining institutions as constraints, property as property rights, firms as contracts, etc. In doing so, neo-institutionalism eliminates the distinctions between concepts; the effect can stand as the primary aspect of the institution, and *institution* becomes a name for a constraint. This mixes up two orders of fact, giving past events (*ex-post* facts) a name associated with greater permanence (*ex-ante* facts). These theoretical moves belong to a nominalist *Weltanschauung*, one already proposed by Pareto, who called himself the most nominalist of nominalists.

JEL Codes: B2, B25, B40, B41, K0, D020

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1. Introduction

It is not easy to define *institutions* and their role in the economy. McCloskey criticises neo-institutionalists because they gather every social thing under its umbrella term: "markets, cities, families, languages, symbolic systems, habits, beliefs, laws, passions, rhetoric, philosophies, ethics, ideology, religions, whatever" (2022, 97).

This article describes the fundamental flaws in neoinstitutionalism, identifying a common conceptual framework – and its related procedures – deployed in the economic analysis of institutions. The term "nominalism" (later econominalism) will be applied to the conceptual framework. The associated procedures are: "applying new names to old meanings," "substituting definitions for empirical content" and "definition by effect." I follow the lead of Karl Mittermaier (2025 and 2020), who ap-

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plied the nominalism/realism framework in his analysis of positivism in economics, general equilibrium economics, and free market dogmatism.

Nominalism is understood in this article as a mindset regarding the relationship between words and things and, by extension, between theory and reality. According to this mindset, general words – the universals such as institutions, property, and equilibrium – function like labels or names. For example, for something to be "good" in this mindset is just another name for what a person likes. Moreover, just as what one person likes has no applicability to what another person likes, so it has no meaning on a universal scale; it has no meaning beyond what it means to any one individual. Thomas Hobbes expressed this mindset in the 17th century: "*Good* and *evil* are names that signify our appetites and aversions" (Hobbes, 1651 [1998]). At the time, Hobbes was called the Monster of Malmesbury because of this view.

So prevalent – even if unnoticed – had this mindset become 250 years later that Charles Peirce (the founder of American pragmatism) identified it as the common *Weltanschauung:*

> It is not modern philosophers only who are nominalists. The nominalistic Weltanschauung has become incorporated into what I will venture to call the very flesh and blood of the average modern mind (5.61, 1903) (Forster 2012).

Indeed, in the same year, Vilfredo Pareto (1903) proclaimed, "I am the most nominalist of nominalists" (cited in Mittermaier, 2020, 80).

The word nominalism derives from the Latin *nomina*, which means *name.* A name is a word. Specifically, it is a proper noun. In many Western languages, personal names fall into an unusual category: they are words without meaning in the usual sense. A name is simply a label for a particular person and is not seen as having any meaning of its own outside of that. Therefore, the motto for the nominalist *Weltanschauung* might be: Do not jump to conclusions! From the name of one person, you cannot conclude anything about another person with the same name. And from the words you use in theory, you cannot jump to general conclusions.

Similarly, in economics, we should avoid jumping to conclusions based on analysing universal words: utility, property, institutions, or even rationality. Instead, in the nominalist's view, it is to the empirical facts that we must look in the hope of knowing anything, and in the expectation that by induction, we can move from the particular to the general, from the past to the future. The nominalist mindset, in other words, comes hand in glove with empiricism and positivism.

This article explores how this mindset has shaped the economic analysis of institutions. Its title "Economic Analysis of Institutions" is construed quite broadly, referring to institutions as anything that is not the traditional subject domain of economic analysis, *viz.*, markets. Thus, the expression refers to, for example, the economic analyses of law, religion, family, crime, firm, organisation, addiction, politics, etc., overlapping with much of what has been called the imperialism of economics. McCloskey's use of the term neo-institutionalism will be adopted in this paper.[1] "Neoinstitutionalism uses enthusiastically … the tools of 'neoclassical' economics. Especially it uses the sub-

[1] The term's application here is broader, approximating to the imperialism of economics.

tools featured in what I have already been calling 'Samuelsonian' economics…" (McCloskey 2022, 19).

In "definition by effect" I mean that which is the effect of something, as in "cause and effect" or "act and effect." A *celestial star* can be defined as a light in the night sky, but the problem with this definition is that not every such light is a star, and not every star manifests with light. It is a definition by effect in that luminosity is an effect – but not the cause – of a celestial body undergoing nuclear fusion. Similarly, Becker and Stigler, in "De gustibus non est disputandum" (1977), define addiction by its effect: "addiction to heroin [is] a growth in use with exposure." "Growth in use" does not define addiction; it is just an effect of addiction, at least in the ordinary meaning of the words. Becker and Stigler delight in upsetting the common sense meaning of the words "addiction," "cause," and "effect." They claim that addiction is the effect of, and is caused by, an inelastic demand, inverting the conventional understanding of addiction and inelasticity of demand.

Section 2 explains the nominalist *Weltanschauung* in more detail, and section 3 illustrates its influence in economics, particularly in Samuelson's revealed preference theory. Section 4 argues that the definition of institutions as constraints mistakes a quantity constraint for a behavioural constraint. Section 5 applies Bart Wilson's insights regarding the priority of property over rights. Property rights do not constitute property; they are the effects of property. Section 6 discusses the definition of the firm as a nexus of contracts. It will argue that contracts are the effects of firms, not what constitutes them. Section 7 introduces "econominalism" as the principle of substituting a definition for normative and empirical content. Section 8 concludes and summarises.

2. Nominalist Weltanschauung

Medieval philosophers first coined *nominalism* as a name applied to a set of theories dealing with the "Problem of Universals," which is the problem of the relation between the general and the particular, and how theory relates to fact. "Problem" is not a fitting characterisation since it may not be solvable, but it is an intellectual enigma, a challenge worthy of attention for anyone offering theories. The ancient Greek philosophers rendered the enigma as "The One and the Many," how one word can stand for many things. How one theory has many instances, how the thing (the one) is, and the way we *know* (the many). There has undoubtedly been a revival in interest in the enigma, as is evident from titles such as "The History of Philosophy Conceived as a Struggle between Nominalism and Realism" (De Waal 2010).

Pareto, after declaring himself "the most nominalist of nominalists," elaborates that "the only objective cases are concrete cases. Their classifications are man-made and are therefore arbitrary …" (cited in Mittermaier 2020, 80). Thus, the *leitmotif* of the nominalist *Weltanschauung* is to treat universals or general terms as mere classifications and as arbitrary. Pareto's illustrative examples had some surprising inclusions: property, capital, value, equilibrium, utility, water, price, and income.

2.1 Nominal Definitions

Intuitively, we can think of classifications as "man-made and arbitrary" in the instances where the things under consideration are, in fact, also man-made and man conceived. Take the example of a screwdriver, a conceived and man-made thing for which we have a word: screwdriver. The *word* screwdriver is also the *name* for the thing. The concept, the word, the name, and the classification are all coterminous. But *screwdriver* is also the definition and the meaning of the word (and the thing). Since "screwdriver" is the name and the definition, it can be called a nominal definition: "A *nominal* definition merely specifies the words we have *chosen* to attach to humanly created things" (Machuga 2011). There is not much point in trying to define it, for it is just a matter of a human artefact being *named* rather than something natural being defined. It is named for its intended effect and defined according to its designed purpose; the screwdriver's purpose is just its effect. In sum, "screwdriver" (the word and the thing) is named and defined by its effect.

The nominalist *Weltanschauung* aspires to the clarity and distinctness associated with nominal definitions. Words that are names, naming individual things, are by definition clear and distinct. It is more complex, however, to define things that are not mere man-made artefacts; think of the definitions of animal, utility, rationality, or society. It is less intuitive to consider groups of natural things (e. g. animals) as classifications that are man-made and arbitrary precisely because they are *not* man-made. But in the nominalist *Weltanschauung*, that is the very point: whether man-made or not, our intellect can grasp it clearly and distinctly, so long as things exist as individuals.

For the nominalist, in defining things, the criterion is not whether it is a definition of something man-made or not, but whether what is being defined exists as a singular, as something individual.[2] William of Ockham (1285 – 1347), the medieval scholar of Occam's razor fame and the preeminent nominalist, insists that only what is singular exists.[3] The nominalist viewpoint is that not only man-made things but everything else can be understood in terms of nominal definitions. Just as human artefacts exist as individual specimens, so does everything else. What does not exist as a singular, e. g. the *species* dog, does not exist.[4] Because things only exist as singulars, categorisation is artificial and arbitrary. The classification is done by the mind, which also provides the class name.

2.2 The Problem of Similarity

The relationship between theory and reality, in nominalism, is related by analogy to the relationship between word and thing. In nominal definitions, the word is a name that corresponds to the thing, and by analogy, the way we know (theory)

[2] In economics, we do not attempt to define competition (an activity); instead, we define *perfect* competition in terms of the number of individual producers and consumers, the homogeneity of the product, etc. It is defined in terms of individual things, because all that exists does so as an individual thing.

[3] "that everything that is … is necessarily one thing in number and consequently a singular thing" (Ockham *Opera Philosophica II*, 11 – 12, cited in Hochschild 2014).

[4] In biology, some bypass the problem, holding that the species is singular.

must conform to the way things are (reality).[5] And since reality presents itself as individual things and events, our theories must be based on the singular thing or event. The image that Pareto used is that theories are "devised to picture facts" (1935, 31). Pictures are always singular things, even after being repeatedly printed.

Our theories, however, are expressed in general and universal terms, not in terms of singular things or events, for that would be more narrative than theory. Medieval philosophical thought was dominated by this conundrum: "How does a reality made up of individual things justify our use of universal concepts?" (Hochschild 2014, 6). Pareto's answer echoes that of his medieval nominalist predecessors: "We intend to study things and hence individuals and to consider species as *aggregates* of more or less similar things on which we determine ourselves for specified purposes" (1935, 31, emphasis added). We group together similar things. This answer raises the "Problem of Similarity"; where do we draw the line between similar and dissimilar, between same and other?[6] And what criteria are we to use to judge not only between the similar and dissimilar, but on what criteria are we to choose the criteria for judging?

What accounts for the similarity among things that are classified together?[7] Do we group things because they are similar, or are they similar because they *are* a group? Is the similarity the effect of something common (the universal), or is the similarity something that causes our mind to group them? In the example of tools, their similarity is the effect of the mould. The mould (or its conception in the mind) comes first; the similarity is only an effect and comes second.[8] In the case of non-man-made things, there is no mould, so it cannot be said that the similarity is the effect of the mind. But instead, the nominalist says the similarity is the effect *on* the mind.[9] The similarity is the cause for grouping things, in which case the similarity comes first, and the grouping comes second. It demonstrates the significant role played by the *mind* in the nominalist *Weltanschauung* and how closely linked it is to forms of subjectivism.

In contrast, according to the realist or common-sense perspective, there is no mental component to the likeness. Members of a universal group or species (dogs, humans, games) are fundamentally the same – they share an essence – so the sameness accounts for the similarity. There is something that is common to them.[10] The nominalist does not have recourse to *something* being common to the members of a species or classification because that *something* does not exist as a singular (tangible) thing.

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5 This will be important when it comes to cause and effect. Since cause comes before effect, but we seem to see effects before the causes, in econominalism, we put effect before the cause. Addiction is not the cause of greater consumption, but greater consumption is the cause.

6 It is the title of chapter 3 in Mittermaier (2025 [forthcoming]).

7 Because there is no satisfactory nominalist answer to this question, the nominalist *Weltanschauung* has its limits, and there will be a mixing of nominalism and realism/essentialism.

8 The terminology "first" and "second" in this context is taken from Wilson 2022.

9 The Kantian version of nominalism would say that the mind, too, causes the effect *on* the mind, that we cannot get to the thing *per se* (see Mittermaier 2025 [forthcoming], chapter 4), since even the notion of cause and effect is mind made.

10 Wittgenstein says that for games and other universals, there is no essence, only a family resemblance, but it begs the question of how to define the family and resemblance.

There should be the greatest possible contiguity between the facts and the names used in referring to facts. In economics, it has started a search for replacement words that somehow are more tangible and precise than *utility* (Pareto suggested *ophelimity*, Fischer *wantability*). In economics, it is also the case for *institutions*, *justice*, etc. As seen in the next section, Samuelson turned this upside down. Instead of finding a new name for metaphysical *utility*, he applies a new name to the concrete case.

2.3 Choices as ex-post Facts and ex-ante Facts

Mittermaier (2023) developed a conceptual framework that facilitates a clearer understanding of the nominalist method employed in economics.[11] He distinguishes between *ex-ante* and *ex-post* facts, where the latter are past events. On the other hand, *ex-ante* facts are facts or structures that are more enduring than the transient past events, in the way that hunger is more enduring than someone's last food choice. If an aircraft crashes, investigators will identify all manner of *ex-post* facts, trying to uncover the cause of the accident: pilot error, engine failure, weather conditions, explosion, etc. The *ex-ante* fact, on the other hand, is gravity.

Ex-post facts lend themselves naturally to a nominalist *Weltanschauung*, as they are singular, observable, recordable, etc. In economics, for instance, actual consumption choices or production decisions are examples of *ex-post* facts. They are past events, and when captured in economic statistics, they are records of past events. *Ex-ante* facts are more enduring than the transient *ex-post* facts and may account for *ex-post* choices and decisions. People's preferences, plans etc. may constitute *ex-ante* facts, motivating them to act in a given manner. A country's laws and institutions, likewise, may be thought of as *ex-ante* facts.

In economics and neo-institutional economics, the two orders of fact are often confused with each other, and *ex-post* facts are often portrayed as if they were *ex-ante* facts. They are *ex-post* facts dressed up as *ex-ante* facts (see Mittermaier 2023, 28).

3. Nominalism in Economics

"Economists do not follow the laws of enquiry their methodologies lay down. And a good thing, too" McCloskey (1983, 1) opens her *Rhetoric of Economics* with this bombshell. The official methodology was positivism, but positivism by then had already been discredited in philosophy, and economics only paid lip service to it.

Positivism's days were numbered from its outset. It disapproves of research into metaphysical subjects, which are often of great interest. Forty years after McCloskey exposed the rhetoric of economics, the subject's scientific pretensions are undiminished, and rather than limiting itself to research areas that are not metaphysical, there has been a veritable explosion of economic modelling applied to new areas that were previously thought not only outside the subject area of economics but were deemed beyond the pale of scientific analysis (economics of religion, economics of philosophy,

[11] It was originally written in 1976, but the manuscript was not published until 2023.

and much more). The economics imperialism is nurtured by its nominalist *Weltanschauung.* McCloskey thereby notes how heavily Samuelson has influenced neo-institutionalism.

3.1 Choice and Preferences

Samuelson's nominalist genius has been in the form of Hobbes's, who, it may be recalled, considered *good* a mere name for what a person likes. What a person likes is tangible in a way *good* is not. The former can be enumerated, and there will be little argument about that. Likewise, Samuelson is looking for something more tangible than utility, hoping to free "the theory of consumer behaviour … from any vestigial traces of the utility concept" (1938, 71). He argued that consumer theory should not be based on axioms about preference and utility, but instead on concrete cases, *viz.* actual consumer behaviour (behaviourism). His proposed *revealed preference* approach begins with market choices, *ex-post* facts.

Actual choices reveal the preferred consumption bundles, preferred over those not chosen. *Utility* does not feature in this approach, though *preferences* do.[12] One might be inclined to object that *preference* is a metaphysical concept as much as *utility* is, but that is to misunderstand what Samuelson had done. *Revealed preferences* are not put to work as a replacement for the concept of *utility.* Revealed Preferences perfectly track actual consumer choices; they *are* the choices. In other words, Samuelson has given a different name to the concept *choice*, calling it "revealed preference."

Samuelson has been successful in a way that Pareto was not. Both searched for an approach to handle the concrete cases, but only the revealed preference approach is firmly established in economics. Varian goes as far as to say, "[s]urely, revealed preference must count as one of the most influential ideas in economics" (2005, 99). Pareto's *ophelimity*, in contrast, has garnered no interest. The reason is the following: Pareto wanted to devise a new name for utility, calling it ophelimity (as in utility at the limit).[13] Still, he made no headway with it – in fact, he himself abandoned it – because *ophelimity*, being a replacement for utility, did not signify observables. Fisher (1918) angled the same fruitless direction, hoping to bring "wantability" into currency in place of utility.

Rather than changing the name of the metaphysical entity (utility), Samuelson changed the name of the observable, creating the impression that the *ex-post* observable *choices* and the new name (revealed preferences) were two different things. Economists happily endorse Samuelson's approach, thinking that "in this manner, choices say something about the underlying preferences of the consumer" (Demuynck and Hjertstrand 2019). In Samuelson's approach, it is not that choices say something *about* preferences, but the revealed preferences *are* the choices under a new label. The *ex-post* facts (*viz.* choices) have been given a name with *ex-ante* connotations (*viz.* preferences).

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12 Later Houthakker (1950) would show that the revealed preference approach obtains the same results as the utility approach.

13 Ophelimity from the Greek *ophelimos*, as in *useful.*

3.2 Choice and Utility Maximisation

Gul and Pesendorfer acknowledge that in economics, "the terms 'utility maximisation' and 'choice' are synonymous." In a similar vein, they acknowledge that "welfare is defined to be synonymous with choice behaviour" (2010, 8). They are not trying to revive an outdated positivistic behaviouristic research project but are merely trying to limit the influence of psychology in economics (see Guala 2019, 387). In the process, however, they exemplify the nominalist *Weltanschauung*. In their formulation, they indicate that the name "utility maximisation" is to be used as a name for "choice," and that "welfare" be used as a name for "choice behaviour." Since an individual's utility or welfare is difficult to track, instead we are to track choices. The latter are easier to track because they are observable. From a common-sense perspective, choice and utility are quite different concepts, but from a nominalist perspective, concepts are man-made creations, and as such, we can name them as we please. However, it is difficult to keep apart the concept and the name for it, and not to do so will sow much confusion.

The suggestion that utility maximisation and choice are synonymous is no different from Samuelson's revealed preference approach. Revealed preference, utility maximisation, and welfare are proposed as three names in place of choice. In the confusion that ensues, one can easily be led to think that the observable choice *is* the preference, *is* maximum utility, *is* welfare. As if by magic, the metaphysical utility, preference, and welfare have become observable. With the focus on observable choice, economists need to have no further recourse to the human mind; accordingly, the title of their paper is appropriate: "The Case for Mindless Economics." However, all that has been done is to give another name – utility maximisation – for actual choices.

Economic statistics record actual choices, or what Pareto called "concrete cases." These are *ex-post* facts and records of past events. The nominalist's trick is to call these *ex-post* facts by different names, such as the two names discussed above, *viz.*, utility maximisation and revealed preferences. Indeed, "rationality," the critical term in rational choice theory, is used in this nominalist manner. It is a name given to the *ex-post* choices. In the sequence listed here – utility maximisation, revealed preferences, rationality – they have connotations of ever-increasing durability, having the hallmarks of being *ex-ante* facts. However, nominalist economics treats them as substitute names for *ex-post* facts. None of the three concepts – preferences, utility or rationality – are treated as something real and distinct from *the choice* to which they give effect. Instead, *ex-post* choices have been dressed up as *ex-ante* facts. In this manner, choices are, by implication, always rational and utility-maximising. Analogously, *institutions* are presented as if they were *ex-ante* facts, but effectively, in neo-institutionalism, they appear as epiphenomena of *ex-post* maximising choices. This is the topic of the next section.

4. Institutions as a Constraint

Institutions are of interest in economic theory because they form the backdrop against which individuals make choices. As such, institutions are more enduring than the ac-

tual choices, providing a structure within which choices occur; the choices are *ex-post* facts, and institutions are *ex-ante* facts. In this sense, institutions are analogous to preferences. One may regard preferences as more enduring than the choices made. However, in Samuelsonian economics, the nominalist trick was to rename the actual choices as revealed preferences, passing off the *ex-post* choices as *ex-ante* preferences. In neo-institutionalism, the same nominalist expedient is adopted, repackaging quantity constraints (*ex-post* facts) and sticking the institution label on them, as discussed below.

4.1 Institutions Defined by Effect

A popular definition of institution is the one offered by North, according to which they are "the rules of the game in a society, or, more formally, the humanly devised constraints that shape human interaction" (North 1990, 3). If institutions are the rules for and constraints to human conduct, they add a new dimension to rational choice. What role do institutions play? Can institutions and rational choice be brought into harmony? Usually, this is done in a manner where rational choice explains the institution's existence, which then imposes constraints and costs that the maximising individual considers.

The issue with characterising institutions as rules is that rules do not always constrain behaviour.[14] For example, murder occurs even under the strictest legal and penal systems.[15] Rules, as Greif and Mokyr acknowledge, are "nothing more than instructions that can be ignored" (2020, 31). Still more blunt is the insistence that "managers not only may but also should violate the rules when it is profitable" (Easterbrook and Fischel 1982, 1177).[16] Whether the instructions are ignored or obeyed is a matter of individual decision-making. Institutions and rational choice have not so much been brought into harmony, but the latter always trumps the former. Not surprisingly, even advocates of the definition acknowledge that "the idea of institutions-as-rules … [is] … limited in scope" (Greif and Mokyr 2016, 30).

The definition of institutions-as-rules is limited because it is a definition by effect. To constrain behaviour might be an effect of rules or institutions, but the constraint does not *make* the rule or the institution. The effect is not always present. Moreover, if the effect is present, it may result from something other than the rules. I argue below that the constraints in neo-institutionalism are quantity constraints, not behavioural constraints.

4.2 The Common Pool Problem and Quantity Constraints

Constraints on behaviour are essential in any economic or social setting. The price system itself constitutes a constraint, an impersonal constraint on behaviour. This imper-

14 This has already been pointed out by both McCloskey (2016) and Greif and Mokyr (2016).

15 Though they may have modified them.

16 Cooter (1984, 1523) has coined a memorable phrase for describing this understanding of rules: "viewing a sanction for doing what is forbidden merely as the price for doing what is permitted".

sonal constraint does not always secure optimal outcomes, especially in settings where external effects are present. Economic analysis models institutions as complements to markets, where the unaided price system cannot ensure efficient outcomes. Thus, the common pool resource problem – a problem of external effects – is the paradigmatic setting for neo-institutionalism. While neo-institutionalism considers the constraints as relating to behaviour, they are constraints on quantity. This will later be illustrated based on Demsetz's theory of property rights, but first, a few words on the common pool problem.

Scott Gordon's classic formulation of the common pool resource problem in fisheries, considers optimal output in the face of external effects. Where there are external effects, the actual and the optimal number of fishermen will diverge because new entrants will have regard not to the marginal (social) product but base their entry decision on the average product. Briefly stated, the latest entrant's catch is equal to the average product, which consists of two components: the fish that would not have been caught had it not been for the newest entrant. And the fish that established fishermen would have caught anyway, but now cannot. The former is the entrant's true marginal (social) product, and the latter reduces the average product in the industry. Therefore, the average product exceeds the marginal product, overfishing ensues, and rent dissipates.[17] What is required to obtain efficiency – maximum rent – is to set a constraint on output. The quantity constraint is primary; the constraint on behaviour (e. g. quotas, keeping out fishermen) is secondary and is just the effect of the output constraint.

4.3 Institutions as a Behavioural Constraint

Neoinstitutionalism, as we will come to see later, generalises the common pool resource problem to the common pool *value* problem. There is value in cooperation (rent), and since two or more people are involved in any cooperation, that value (a common pool resource) is subject to dissipation. However, instead of portraying the optimal solution as one of quantity constraints, neo-institutionalists portray them as behavioural constraints.

Demsetz's (1967) pivotal contribution is an early instance where the solution to the common pool resource problem is presented as a constraint on behaviour rather than a constraint on quantity. His thesis is that private property rights emerge out of common pool rights in order to "internalize externalities when the gains of internalization become larger than the cost of internalization" (*ibid.*, 350). With the focus on internalisation, behaviour, rather than quantity constraints, is cast onto centre stage.[18] He gives the historical, 17th century example of the Indians of the Labrador Peninsula to demonstrate how the institution of private property rights is an efficient response – subject to changing relative prices – to the common resource problem.

[17] The optimal number of fishermen – one that maximises the rent to the community of fishermen – occurs where marginal product equals marginal cost. However, there will be new entrants up to the point where the average product is equal to the marginal cost, at which point economic rent for the industry will be zero.

[18] The header section in the article carries the noteworthy text "Property Rights and Behavior."

Given the initially relatively low prices of fur for which the Indians hunted, the value of common pool rent dissipation was negligible. That changed when French fur traders appeared on the scene. Both the amount of hunting and prices increased, such that overhunting became a problem, and the dissipation of rent assumed considerable magnitude. Under the condition of these new relative prices and costs, the Indians instituted the demarcation of land, limiting individual hunters to their assigned pieces of land, *viz.*, their private property.

Demsetz demonstrates that if purely economic considerations are to play themselves out, an efficient property rights system will emerge, irrespective of whether they are private or common property rights. Private property rights are not the domain of any particular and single society, its ideology, or level of development. Instead, it is a matter of rational calculations that take account of relative prices and costs, including transaction costs (for enforcing property rights) and rent dissipation. While Demsetz does not use the word institution, he nonetheless refers to property rights as an *instrument* of society. The instrument will be an efficient means of dealing with external effects.

Demsetz's discussion is analogous to the common pool problem in the fisheries case discussed by Gordon. In both cases, rent maximisation is achieved by constraining output through measures such as limiting entry, imposing quotas, or land demarcation. If relative prices and costs change, the optimal quantity may vary in concordance, and the measures may be adjusted accordingly. The measures track (or toggle with) the optimal output quantity. Furthermore, individual community members may follow or ignore – at a possible cost – whichever measure is in place. The measures and their observance are choice phenomena, and as such, they are *ex-post* facts. Even land demarcation – private property for Demsetz – features in his analysis as an *ex-post* fact. What, on the other hand, features as *ex-ante* fact; what features as more enduring the than the choices made? It seems that rational choice features as an *ex-ante* fact in the analysis.[19]

Applying the rational choice model, the economic theory of property rights aspires to universality, valid for all places, all people, and all times. The grounds for universality lie in rationality, which is thought of as being common to all. To avoid the difficulties associated with rationality (see previous section, and last footnote), one may instead say that what is common to all is a preference for more wealth rather than less. "English political economy, as compiled and interpreted by Mill, did not concern itself with preferences in general, but with one particular preference, that being for more wealth rather than less. This preference was taken to be common to everyone," notes Mittermaier (2023, 86). In both examples discussed – the fisheries and fur hunting – the communities constrain their output quantities in pursuance of this preference for more wealth rather than less. The quantity constraint is the effect of a preference, not the effect of an institution.[20]

[19] But the point of the analysis was to demonstrate that "private property" is a rational choice, so the analysis assumes what it sets out to prove.

[20] If there is an institution in Demsetz's description, it is related to how the decision to restrict hunting – and hunters abiding by that decision – is arrived at in the community.

In summary, neo-institutionalism defines institutions as humanly devised constraints. It is a definition by effect. Two problems may arise with this type of definition: i) the effect may not be obtained, that is, the constraint is non-binding, and ii) the effect may be the result of something other than the thing defined. First, it has been argued here that the effect, which is being modelled in the neo-institutional approach, is not a constraint on behaviour, but a constraint on quantity. Second, the quantity constraint is not the effect of an institution but the effect of a preference.

5. Property and Property Rights

While this article introduces the expression "definition by effect," Bart Wilson (2022) has already identified its underlying argument. In his discussion on the relationship between property and property rights, he emphasises that "property rights are an effect of property" (Wilson 2022, 1). While this seems self-evident and innocuous, it is the inverse of the commonly held position in neo-institutionalism. It is astounding that it has taken so long (since Coase's 1960 *Theory of Social Cost*) for this to be pointed out. Amongst neo-institutionalists, the norm is to think about property *rights* rather than *property* per se.[21] In this, they follow legal academics, who, for most of the twentieth century, have conceptualised property as a bundle of rights (Baron 2014). The bundle of sticks metaphor is invoked to explain how different parties can have separate rights over the same land. The farmer may plant and till his land, but the minerals underground may belong to the state. It is referred to as the bundle of sticks theory of property.

The bundle theory does not consider property as a kind of *something* (*in rem* in terms of Merril and Smith 2001). Instead, it acknowledges only singular rights that are individual, specific, and tradeable when identifiable. For example, one owns not so much one's own body but whatever rights one can imagine in association with the body. In the eyes of a nominalist *Weltanschauung*, the advantage of the bundle of sticks theory is that each tradeable stick is subject to market forces: For example, selling labour time or organs, contracting spousal services, renting out the uterus or other parts, alienating into enslavement or death, etc.

Barzel (1989) made a valuable contribution to the theory of property rights, championing the notion of margins of adjustments. For every stick in the bundle, there is a margin of adjustment, an opportunity to devise a wealth-maximising outcome, whatever the constraint. If, for instance, a building is subject to rental price ceilings, the landlord may conjure up the right to rent the apartment keys. In which case the keys (with the right to open the apartment door) will be rented to the person who values them most. And where there are rules against such practices, there may yet be other means for the landlord to maximise rental income. Suppose a fast-food store owner is confronted with a higher minimum wage for his workers. In that case, the restaurateur can compensate for that by reducing free staff meals, instituting longer working hours, increasing the menu prices, changing opening hours, etc. To employ fewer workers (given the higher minimum wage) is just one of those margins along which

[21] See, e. g., Thurman 2023.

the owner can make maximising adjustments. The restaurant owner may not have the right over the minimum wage but has rights over other margins of adjustment.

Property rights theory assumes that ownership over each stick in the bundle as primary, and property is secondary, which is the mere sum of such ownership. In disagreement, Wilson advocates that "[p]roperty must come first and can be used to *explain* property rights, and property rights must come second and can be *explained by* property" (2022, 1). If property comes first, then property can be conceptualised as a "cause" and property rights as an effect of property. Property rights presuppose property; they do not constitute property. In the terminology proposed in the present article, and in agreement with Wilson, to define property in terms of property rights is to define property by its effects. Wilson's analysis of the relationship between property and property rights can be extended and generalised to other research areas within neo-institutionalism. The expression "defined by effect" will also be applied as in "define the firm by effects," and "define law by effects."

The expression "definition by effect" is owed to Duane Berquist (1932 – 2018), a singular teacher of the philosophy of Aristotle and Aquinas. He was from the so-called Laval school of philosophy, which has an oral tradition.[22] We can access Berquist's (2013) teachings as some recordings are available on the Internet Archive.[23] In his lectures on Nichomachean Ethics, Berquist talks about definition by effect regarding Aristotle's preliminary definition of what is the *good.* We call something good because it is desired. However, Aristotle's last answer puts it the right way round – some things we want and desire *because* they are good for us. We have a desire for water, food, and sex – because it is good for our individual and species survival. These desires are so important that we have names for them, *viz.* thirst, hunger, etc. The preliminary definition is a definition by effect, defining the good by the effect which it brings about, namely the desire for it. The good is primary (paraphrasing Wilson), and the desire for it is secondary. However, not all desires are good, therefore a definition by effect is inadequate.

The practice of definition by effect is wider than economics and finds expression in most research areas. An interesting example is that provided by Darwin in *The Origins of Species*, where he defines species as merely a term arbitrarily given for the sake of convenience to a set of individuals closely resembling each other (Darwin 1859, 52). Individual things (e. g. zebras) are categorised into classes based on how much they resemble one another, but it leaves unexplained why they resemble each other.[24] If one adopts a realist perspective, according to which a species is something real (not just a convenient label), one would argue that the resemblance (of zebras to each other)

22 Those who did publish a recognisable body of work include Charles de Koninck (considered the founder of the Laval school of philosophy), Maurice Dionne, and Ralph McInnery. Even de Konnick's work is still largely unpublished.

23 https://archive.org/details/duaneberquistonethics.

24 Myer, an evolutionary biologist, finds nominalist arguments in biology highly improbable: "There is no more devastating refutation of the nominalistic claims than the fact that the primitive natives in New Guinea, with a stone age culture, recognize as species the same entities of nature as western taxonomists. If species were something purely arbitrary, it would be totally improbable for representatives of two drastically different cultures to arrive at the identical species delimitation" (1988, 317).

is the effect of them being part of a species. Defining the species by resemblance is to define it by effect.

6. Theory of the Firm

The neo-institutional theory of the firm is closely related to property rights economics, and Wilson's discussion on the primacy of either property or property rights can be applied to it. Alchian and Demsetz treat the firm in the fashion of property rights theory, assuming the bundle of rights as primary and ownership as secondary. "It is the entire bundle of rights … that defines the *ownership* … of the *classical* … firm" (1967, 783, emphasis in the original).

Coase's 1937 paper was the first step towards the neo-institutional theory of the firm. In it, he introduced the idea that there is a cost associated with transacting in the market. If markets are efficient, as economic theory holds, why do firms exist? Why is not all economic activity transacted in markets? He answered that there are costs involved in operating in the market, and it may be more effective to use the command structure of a firm to get various jobs done. The term "transaction costs" was missing, but the scene was set. This transaction cost theory of the firm was a departure from the established market structure theory (models of perfect competition, monopoly, etc.), which assumes the firm to be on the supply side for outputs and on the demand side for inputs. Coase explained why some resources are inside the firm (therefore featuring on the supply side of the market) and others on the outside.

In the view of Alchian and Demsetz (1972), Coase's theory had not gone far enough because it kept the notion of *inside* the firm, keeping the box. A hierarchical structure has replaced the market inside this box called the *firm.* Instead, they argue that the firm "has no power of fiat, no authority, no disciplinary action any different in the slightest degree from ordinary market contracting" (Alchian and Demsetz 1972, 777). To think otherwise is "delusional." In a firm setting where people cooperate ("team production"), joint output may be higher than the potential sum of individual outputs attainable in the absence of cooperation. But in team production, value or output may not be attributable to any specific team member. This creates a situation analogous to the tragedy of the commons. Joint value is like the rent of a common pool resource and is subject to dissipation. In the 'tragedy of the commons,' dissipation occurs through overgrazing or overfishing. In the firm, rent dissipation occurs through individual team members' shirking activities. In the case of the classical owner-operated firm, the owner – residual claimant – is incentivised to minimise such rent dissipation. Hence, ownership in the hands of a single entrepreneur is an efficient solution to minimise rent dissipation. "[T]he firm is the particular policing device utilised when joint team production is present" (*ibid.*, 785).

In team production, there are many margins of adjustments: decisions of team members to shirk on the job, the costs of monitoring shirking and monitoring the monitor, the costs of measuring productivity, and so forth. These margins of adjustment are under the control of various team members, each trying to maximise their return. Each team member will engage in activities up to the point where the marginal benefits will equal marginal costs. Alchian and Demsetz conclude that "[t]he firm can be consid-

ered a privately owned market." What distinguishes this market form from other markets is that there is a "centralised contractual agent in a team productive process" (*ibid.*, 778).[25]

Jensen and Meckling introduced the nexus-of-contract terminology: "contractual relations are the essence of the firm…" and "most organisations are simply legal fictions which serve as a nexus for a set of contracting relationships among individuals" (1976, 310). Many joined the chorus, and to cite just one further instance, Easterbrook and Fischel refer to "the corporation as a set of contracts" (1989, 1428). In economics circles, the definition of the firm as a set of contracts has been solidified, but in legal circles, misgivings have emerged.

In the above brief survey of the theory of the firm, three definitions of institutions have been identified: i) the firm as a market, ii) the firm as a policing device, and iii) the firm as a nexus of contracts. In each case, the second term – market, policing device, contract – is more concrete than the term "firm." And in this, the definitions comply with Pareto's advice that the words used in the logico-deductive method should designate things, be as exact and as definite as possible. In each case, however, the definitions are also metaphorical. In a metaphor, Thomas Aquinas says, the speaker's meaning is not the word's meaning. In this sense, the "corporation is a set of contracts" is a metaphor. We understand the meaning of the speaker, but the meaning of the word "contract" on its own is different. A contract specifies deliverables and payables and is individual and tangible, even if only as a spoken promise. Defining the firm as a set of contracts is to define it by its effects; the firm has primacy, and contracts are its effects.

7. Econominalism

Paretian economics (and general equilibrium economics as a whole) has little empirical content (see Hildebrand 1999; Kirman 2019; Mittermaier 2023). This is peculiar given Pareto's emphasis on "concrete cases." McCloskey points out a similar lack of empirical content in neo-institutionalism, writing, in reference to Allan (2012), that "even a superb piece of historical economics in a neoinstitutionalist vein, shows the lack of quantitative oomph characteristic of economics more broadly. If such a fine piece of Northian economic history lacks oomph, so much the worse for the normal run of neoinstitutionalism, and still worse for other versions of conventional economics" (2022, 83).

The lack of empirical content is the consequence of a further aspect of nominalism in economics: it substitutes definitions for empirical and normative propositions. It is the argument made in 1974 by law scholar Arthur Alan Leff (1974) concerning the "economic analysis of law" that was sweeping through American law schools. A similar argument is made by Mittermaier (2023), though his argument relates not to the economic analysis of law, but to equilibrium economics as a whole. In book-length treatment, he argues that the idea of "preference field" usurps the position of what might be called the empirical content of economics. And more specifically, it makes

[25] Alchian and Demsetz ponder the possibility that the firm might, in fact be a more efficient market than ordinary markets, which are not privately owned.

it challenging to bring into consideration our everyday acquaintance with economic and social institutions. Here, I will limit myself to Leff's treatment of the matter.

In his review of Posner's (1973) *Economic Analysis of Law*, Leff (1974) calls for "some realism about nominalism" in the subtitle of his article.[26] He understood by nominalism the intellectual technique deployed by Posner in particular, and in the economic analysis of law in general, *viz.:*

> Since its basic intellectual technique is the substitution of definitions for both normative and empirical propositions, I would call it American Legal Nominalism (Leff 1974, 459).

Posner presented his analysis of law as positive economics, avoiding normative questions of what the law ought to be, intending instead to show what it is, and "to deduce the basic formal characteristics of law itself from economic theory…" (1973, 393) Positive economics does not judge which actions, preferences or desires are good (or bad). Instead, it assumes individuals know best what is good for themselves. So, the first substitution is a definition for "good": The "good is defined as that which is in fact desired" (Leff 1974, 456). That which is desired is in its form an empirical question, but instead of an empirical investigation, there occurs a further substitution: "What people want" is defined as "what they *do*" (*ibid.*, 456–57). It is naming what they do as what they want, taking a leaf out of Samuelson's "hymnbook" of the revealed preference approach. The word for the more intangible *want*, is applied to the concrete and observable *ex-post choice.*

Although Leff settled on the expression "American Legal Nominalism," he also considered "econominalism" as an alternative. "Econominalism *was* tempting. Luckily, it was also obviously barbaric" (*ibid.*, 459). But "econominalism" serves present purposes and will be adopted here in reference to the nominalist *Weltanschauung* in economics and neo-institutionalist economics.

Econominalism can be found at work, for instance, in Rubin's economic analysis of the common law, where he intends to show that the common law is efficient. However, there are not many facts, if any, that Rubin provides, relying as he does on economic theory to make his case. For Rubin's model to work, he implicitly assumes that the judge, in a legal setting, has the very model in mind that Rubin develops. Econominalism applies as a characterisation of Rubin's approach, not only because it substitutes definitions and models for empirical content, but also because it gives a name to that model, calling it the common law.

However, in Rubin's analysis, the term does not have the meaning usually associated with it. Common law, according to his argument, advances not according to normative considerations subject to precedents; rather economic efficiency turns the wheels of common law. Common law will be efficient, because of the utility-maximising decisions of parties to either litigate or settle disputes. Where both parties to the dispute have a continuing interest in the precedent, the parties will settle, if the existing precedent is efficient, but litigate if the precedent is inefficient. The inefficient precedent will be litigated frequently until a judge overturns it. Thus, efficient prece-

[26] To this day, commentators regard Leff's as the best critical statement on the subject. Unfortunately, Leff died not long after it was published, and no one has developed any further the insights found in it.

dents tend to become embedded in the common law, while inefficient ones are gradually eliminated.

Rubin defines the precedents which get litigated as inefficient. The efficient ones do not get litigated or get litigated less frequently. Rubin's argument presupposes what it sets out to prove, as it does not explain why the judge will overturn a precedent, other than that the precedent is frequently litigated. It confuses two different orders of fact, the *ex-ante*, and the *ex-post* order of facts. In the ordinary understanding of the matter, the common law is in the *ex-ante* order of facts, in that precedents serve as guide to action, not only to the common law judge, but also to the society. However, in Rubin's model, precedents are treated as *ex-post* facts. What matters is not their content, but the frequency – record of past events – at which they are litigated. Unless the judges are themselves guided by the economic model of econominalism and litigation frequency, nothing is inherent that will motivate the judge to overturn the precedent.[27]

Moreover, the efficiency argument is a variation of revealed preference theory. The observing economist does not have to know the normative content (the preferences, so to say) of the judge's thinking or decision-making; all that is required is knowledge of the actual choice, *viz.* for or against the precedent. Whichever the decision, the efficient precedent will reveal itself in not being litigated. The revealed preference theory and the efficient common law theory dress up *ex-post* facts (choices and decisions) as *ex-ante* facts (preferences and precedents).

8. Conclusion

Much has been achieved in economics from the time of Adam Smith until now. Smith himself had already perceived a form of nominalism current in intellectual circles. He did not call it nominalism but referred to its implication: arguing against Mandeville's "system," Smith thought it "takes away altogether the distinction between vice and virtue" (1759, 308). Although he considered Mandeville's notions in every respect erroneous, he realised that Mandeville's doctrines had about them "an air of truth and probability which is very apt to impose upon the unskilful" (*ibid.*). Econominalism is the present-day continuation of these doctrines, whose effect Smith considered pernicious. It is an economics without distinctions. It eliminates the distinctions between virtue and vice, preference and choice, utility maximisation and choice, norms and self-interest, property and property rights, morals and enforcement, firm and market, sanctions and prices, law and efficiency, addiction and rationality, institutions and constraints, and so forth. It has an air of truth and probability because metaphysical terms assume the concrete identity of *ex-post* facts.

In this manner, research topics that were ordinarily not thought to be the domain of economics are made amenable to economic analysis. It is one with the imperialism of economics, which applies the tools of economics and the nominalist *Weltanschauung* to non-economic fields. However, it is impossible to maintain a consistent nominalist position. Even the nominal definition of a screwdriver (section 2) relies on a realist and natural understanding of what it means "to drive"; no screw can be driven into the

[27] This is analogous to the rational expectations hypothesis in macroeconomics.

mud. Mittermaier writes that "positivism in economics … is a blend of nominalism and realism. Whether it is a blend which offers the best of both worlds is arguable. One reason for doubt is (to extend the metaphor) that it is a blend without fixed proportions, that everyone is his own blender" (forthcoming 2025). In economics, we can change the blend proportions as Smith did in the *Wealth of Nations* and *Theory of Moral Sentiments*, treating virtue and human conduct in a realist fashion as *ex-ante* facts to study.

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