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Legal and Philosophical Analysis of Ownership and sovereignty over hydrocarbon resources in concern with issues on internationally shared hydrocarbon reservoirs

Master Thesis

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Abstract

Natural resources have been always a controversial issue. Also, the most special kind of natural resources which has caused the most of disputes and issues in recent years has been hydrocarbon resources. Recently one of the most problematic issues under this topic has been the disputes over shared hydrocarbon resources between two or more countries. Due to the fluid nature of hydrocarbon resources, neighbor states usually compete over producing the most possible amount of hydrocarbon which usually leads to inefficient production rates and also legal disputes with a background of ownership and sovereignty. ownership and sovereignty over natural resources have been always one of the major issues. There are different theories and philosophies regarding these two legal notions. And these two notions (ownership and sovereignty) have got some interactions with each other which makes the situation more ambiguous. In this research, our main hypothesis is that ownership as a civil right is considered a dualistic concept and sovereignty is considered a phenomenal concept which is based on monism. Based on the analysis presented in this research, we concluded that ownership is a right which exists independently from sovereignty. Sovereignty creates public ownership concept, which in this research we explain how it is different from ownership right. In the end arrangements on the joint development of the shared natural resource, which is called unitization agreements have been suggested as the proper solution for the challenges.

Introduction

Natural resources have been always a controversial issue. Numerous cases and precedents related to the issue of natural resources in different international tribunals such as the Permanent Court, Court of Justice, ad hoc and institutional arbitrations prove that a lot of disputes in the international level concerns directly or indirectly natural resources cases.[1] Also the most special kind of natural resources which has caused the most of disputes and issues in recent years has been hydrocarbon resources due to the value of them and its determining role, both in recent era issues or older issues back in the era of nationalizations in 1970s which originated from 1951 when Iranian national cabinet led by Dr. Mossadegh for the first time in the history managed to nationalize the hydrocarbon resources and nullify British Petroleum's concession over Iranian hydrocarbon resources by the formal procedures of international law.[2] This event made an important update in the literature and mandatory rules of international law which today is known as the sovereignty right of states over their natural resources. This right has been acknowledged through some international instruments like resolution 626 and resolution 1803 of United Nations General Assembly and also the

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[1]- Rosalyn Higgins, "Natural Resources in the Case Law of the International Court," *International Law and Sustainable Development: Past Achievements and Future Challenges* (1999).

[2]- George Joffé et al., "Expropriation of Oil and Gas Investments: Historical, Legal and Economic Perspectives in a New Age of Resource Nationalism," *The Journal of World Energy Law & Business* 2, no. 1 (2009). 5

charter of Economic Rights and Obligations of States.[1]

In fact, ownership and sovereignty over natural resources have been always one of the major issues. There are different theories and philosophies regarding these two legal notions. And these two notions (ownership and sovereignty) have got some interactions with each other which makes the situation more ambiguous. For example, the questions as below have been always controversial;

- if ownership and sovereignty are distinctly separated or are they as parts of each other?
- If they are parts of each other which one is superior one?
- do they resemble separate notions but sharing mutual areas?

Moreover, nowadays, there are some serious issues for example in natural resources shared between two states which no integrated legal theory has been provided for them to make the situation clear from the legal point of view. There are some characteristics of hydrocarbon (or similar natural resources) which cause some debates on the issue of ownership and also sovereignty over such resources. Hydrocarbon resources have formed out during thousands of years and considering the liquid nature of hydrocarbon reserves they couldn't and cannot be fixed underground. For example, by earthquakes and cracks in the layers of the earth, such resources may move to other places which may result in subsequent claims of neighbor owners/states. Or in the case of a shared reservoir or adjacent reservoirs

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[1]- Nadine Bret-Rouzaut and Jean-Pierre Favennec, *Oil and Gas Exploration and Production Reserves, Costs, Contracts* [Recherche et production du petrole et du gaz], trans. Jonathan Pearse, 3rd ed. (Paris: Edition Technip, 2011). 173

extracting may cause movement of the resources into the territory of the other state. There has been always disputes over ownership and sovereignty of such resources which are below the territory of one side but can be extracted in the other side's territory. The situation gets even more complicated when the accessory ownership is considered in its absolute way, meaning that all above and below the property would be under the ownership of the owner as its accession. In the United States of America (in some of the states) the rule of capture has been used as a solution to this issue. In fact, they consider natural resources like hydrocarbon resources as unclaimed and unowned resources, therefore, whoever extracts and produces these resources, will be the owner due to the rule of capture.[1] But still, such a solution can be applied only in the case of private ownership, not in those cases which involve states and different authorities plus the sovereignty issue. therefore, this research examines the involved theories and philosophies regarding ownership and sovereignty in order to reach an integrated doctrine.

Ownership and sovereignty are legal notions with specific meanings for each one. Nonetheless, some argue that there is a strong relationship between them and with lacking each one of them the other one will be lost. When we study the philosophy of the mentioned notions separately, there are similarities and even mutual roots but it does not necessarily mean that these notions are parts of each other.

As in this issue, multiple aspects of different theories, notions, and philosophies considering different fields of law (public law, public international law, and private law)

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[1]- Mostafa Maddahinasab and Yousef Moslemi, "Acquisition and Reclamation of Wastelandwith Rule of Capture in Common Law of the United States: A Comparative Study," *Journal Of Researches Energy Law Studies* 1, no. 1 (2015). 80

are involved, therefore, research for pulling them all together and clarifying the situation is important. This research will distinguish and examine the different theories regarding both notions and their relations. Then the questions of the research will be answered accordingly. And also the research will try to suggest a doctrine which makes the situation clear regarding natural resources like hydrocarbon resources. In the next sections, the main structure of assumptions and some theories and bases that we have applied is distinguished which will lead to our specific hypothesis toward our specific issue.

Methodology and the main hypothesis

In this section, the methodology, hypothesis, and theories of the research will be discussed. In summary, the methodology of the research consists of two logical mechanisms:

- Idea and proof mechanism (noumenon and phenomenon)
- The mechanism of four types of relationship between Two universals

In the subsections, each one of the methods will be explained and also it will to explained that how these methods shape the main hypothesis of this research.

Noumenon and Phenomenon

Farabi (870-950 AD), The Persian well-known philosopher, also known as the second teacher[1], is the first philosopher who has divided logic, into two distinct phases, Idea and proof. However, before Farabi there were some implications on such division in

[1]- in middle eastern philosophy, Aristotle is known as the first master and Farabi as the second master.

Plato's philosophy stated in the book of Republic where he explains about the divided line of mind (510-511).[1] But as a distinguished method of logic, it has been asserted in Farabi's method of Idea and proof. the idea is what we think or sense and proof is the state which attributes a fact to the idea. Hence, the proof is about reality outside of man's mind but the idea is a state in our mind of perceived or assumed phenomena.

Emmanuel Kant, by *noumenon* and *phenomenon*, has also asserted a similar division in his philosophy. According to Kant, *noumenon* is the thing in itself and *phenomenon* is the thing as it appears to an observer.[2] Thus *noumenon* is the same proof and *phenomenon* is the same as an idea in Farabi's logic.

Considering the theory of noumenon and phenomenon, philosophical schools are divided into two major streams;

- Philosophies which are monists like idealism and materialism; these are philosophies which do not believe in the separation of the noumenon and phenomenon. Thus they believe that reality is a single phase which is based on our idea (in the case of idealism) or materials (in the case of materialism) or our senses (in the case of empiricism) in the rest of this research we may recall this category of thoughts as phenomenal thoughts.
- Philosophies which are dualist like realism; meaning that they believe noumenon has an existence independent from our mind and perception. We regard such thoughts as noumenal thoughts.

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[1]- Hugh H. Benson, "Plato's Philosophical Method in the Republic: The Divided Line (510b–511d)," in *Plato's 'Republic': A Critical Guide*, ed. Mark L. McPherran, Cambridge Critical Guides (Cambridge: Cambridge University Press, 2010).

[2]- Immanuel Kant, *Critique of Pure Reason* (Cambridge university press, 1999).

Among legal theories the most obvious phenomenal theory is positivism and the most noumenal theory is natural law. According to positivism, rights come to existence after the government or regulation body ratifies them, hence rights (noumenon) and regulations (phenomenon) are within the same phase. According to natural law, there is a noumenon (rights) already and it shall be discovered or acknowledged by a phenomenon(rules). In the context of law, rights are noumenon and phenomenon would be either regulations, contracts or judicial decisions. The consequence of positivism regarding the structure of noumenon and phenomenon will be announcing rights without referring to the existence of the right before the announcement. Whereas, the consequence of a noumenal theory like the natural law would be discovery or acknowledgment to a right which already is existing.

In this research, our main hypothesis is that ownership as a civil right is considered a noumenal (dualistic) concept and sovereignty is considered a phenomenal concept which is based on monism.

In the next sections, we discuss the philosophical roots and origins to see if such theory makes sense or not, if so, what would be the answer to the questions and challenges of this research. In conclusion.

four types of relationship between Two universals

a universal concept is one whose conceptualization can apply to more than one entity in a general way. The opposite of universal is a particular which cannot apply to more than one entity. The theory of universals can be traced back to Plato and Aristotle, however, apparently, there are some differences in detail between these two philosophers in this

matter.[1]

Four relationships between universals concern how two universals are related to each other, in this matter, there will be only one of these four types of relationship between the two universals;

- Equality of sets: when the two universals are including the same entities
- Disjunction of sets: when the two universals has no mutual entities and are completely different.
- Proper subsets: when one of the universals has more entities and involves all of the other universal's entity as well
- Intersection of sets: when the two universals has mutual entities but also each one has entities which the other one has not.

The mechanism of four relationships as above has been one of the main applicable mechanisms in middle eastern logic which has been organized by Persian philosophers. However, explaining such relationships between universals can be found in Avicenna, it seems that Ghazali was the first philosopher who distinguished this mechanism as an organized method in logic.[2]

In our research, we are going to distinguish sovereignty and ownership (as two universals) by applying this mechanism. Therefore, the question of the research in this regard will be that how sovereignty and ownership are related to each other concerning the four types of relationship?

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[1]- Max J Cresswell, "What Is Aristotle's Theory of Universals?," *Australasian Journal of Philosophy* 53, no. 3 (1975). 239

[2]- Seyedeh Zahra Musavi and Mahnaz Amirkhani, "Historical Movement of the Four Relationships in Islamic Logic," *Logical Studies* 3, no. 1 (2012). 137

Our hypothesis in this regard will be that sovereignty and ownership have not mutual entities and they are two notions independent from each other. By defining sovereignty and ownership and determining their scope and their entities we will be able to examine if there are mutual entities between these two concepts. And if there are mutual entities, which kind of the four relations can be deduced from that. By understanding the relationship between these two concepts we can have a clear sight for presenting the doctrine for the challenge of this research.

Ontology, phenomenology, and epistemology

In this section, we discuss ontology, phenomenology, and epistemology. This will help us to understand the theory of Noumenon and Phenomenon properly. At the end of this section, we will see how these approaches relate to the concepts of noumenon and phenomenon.

Phenomenology

There are several but similar definitions on phenomenology. But in this research, we only consider the traditional definition and conception in the field of philosophy toward phenomenology. Some recent definitions are as below:

- Phenomenology is the study of human experience and of the ways things present themselves to us in and through such experience.[1]
- Phenomenology is the study of phenomena and structures of consciousness as experienced from the first-person point of view.[2]

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[1]- Robert Sokolowski, *Introduction to Phenomenology* (Cambridge University Press, 2000).

[2]- David Woodruff Smith, *Husserl* (Routledge, 2013). 180

Despite being recent, above definitions are pointing to the traditional definition of phenomenology, formed out by Edmund Husserl (1859-1938).[1]

However, there are traces of phenomenology in older philosophers' conceptions like Avicenna's and Descartes's, Husserl is the first philosopher who established phenomenology as a new discipline in philosophy and in science generally; a science of consciousness, distinct from psychology and epistemology as well.[2]

phenomenology as in its traditional conception is the study of the phenomenon and hence it is a subjective approach.[3] But it doesn't necessarily mean that it is originated only from the physical world that we see. But rather from ideas as well which is subconsciously held. These subconsciously held ideas also have their roots in personal subjective experiences.[4] Therefore, we can say phenomenology is also a study of noumenon but in a subjective manner, as they are perceived or shaped in our mind.

Ontology

Ontology in its philosophical sense is the study of being. specifically, a branch of metaphysics relating to the nature and relations of being.[5]

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[1]- Shaun Gallagher, "What Is Phenomenology?," in *Phenomenology* (London: Palgrave Macmillan UK, 2012).

[2]- Smith, *Husserl*. 180

[3]- Herbert Spiegelberg, "How Subjective Is Phenomenology?," in *Essays in Phenomenology*, ed. Maurice Natanson (Dordrecht: Springer Netherlands, 1966).

[4]- Oscar Koopman, "Phenomenology as a Potential Methodology for Subjective Knowing in Science Education Research," *Indo-Pacific Journal of Phenomenology* 15, no. 1 (2015).

[5]- Raul Corazzon, "Theory and History of Ontology," (2014). 34

Despite phenomenology, ontology has a more distinctly older precedent. From ancient Greek philosophers such as Plato and Heraclitus to medieval Persian philosophers in Esfahan school of philosophy (like Mirdamad and Sadra) to modern philosophers like Martin Heidegger (1988-1976). Nonetheless, it seems that the first philosopher who considered being as principle and objects as subsidiary to being was Ṣadr ad-Dīn Muḥammad Shīrāzī (Mulla Sadra) (1572-1640). Mulla Sadra was an important Persian philosopher who founded Transcendent Theosophy which was the first integrated ontological approach in middle eastern philosophy. According to Mulla Sadra, in his famous book, the four journeys of the intellect, "existence precedes the essence and is thus principal since something has to exist first and then have an essence."[1]

Ontology can be divided into two major approaches, subjective ontology, and objective ontology. Sadra's ontology and also most of the middle eastern philosophers' ontology is objective meaning that they take the essence of objects into account however in Sadra's ontology, the essence of objects is dependent on the existence. On the other hand, subjective ontology considers being and existence from the observer's point of view. Due to Humanism movements, Modern ontology is more subjective and contrary to the medieval objective ontology, subjective ontology is not to prove god. The best evident subjective ontology comes from Heidegger. His ontology was to understand existence pure from objects. He wanted to clarify being through the consciousness of *Dasein* of its own existence.[2]

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[1]- Mehdi Amin Razavi Aminrazavi, *Suhrawardi and the School of Illumination* (Routledge, 2014).

[2]- Mehdi Monfared, "Research on Ontology in Philosophy of Mulla-Sadra and Heidegger," *Philosophy of Religion* 2, no. 4 (2006).

As we explained before phenomenon is the idea or an estate in our mind of the existence of outer reality. Thus if based on ontology reality is existence (or existence is reality) we can say that noumenon (or the ultimate noumenon) is existence. Hence Ontology relates to noumenon like the way phenomenology relates to the phenomenon. And also just like the way phenomenology is the study of the phenomenon, ontology is the study of the noumenon.

Epistemology

Epistemology or the theory of knowledge is about how our observations relate to reality and if they are factual or not. Epistemology is an attempt to make sense of the possibility and human intellectual achievement. An epistemologist tries to illustrate the difference between knowledge and opinion. Also tries to understand what it is really to know or really to believe reasonably, even if people routinely fail to know or are frequently irrational.[1] As the study of knowledge, epistemology is about the following questions: What are the necessary and sufficient conditions of knowledge? What are its sources? What is its structure, and what are its limits? As the study of justified belief, epistemology aims to answer questions such as: How we are to understand the concept of justification? What makes justified beliefs justified? Is justification internal or external to one's own mind? Understood more broadly, epistemology is about issues having to do with the creation and dissemination of knowledge in particular areas of inquiry.[2] A general normative answer to above questions suggests foundationalism and coherentism as the elements which shows our beliefs are truly justified as knowledge or

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[1]- E Tulving and FIM Craik, "What Is Epistemology?," *memory* 124, no. 352.

[2]- Matthias Steup, "Epistemology," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Stanford: Metaphysics Research Lab, Stanford University, 2018).

not. Meaning that When the reasons are sufficiently cogent, we have knowledge. Foundationalism holds that reasons rest on a foundational structure comprised of basic beliefs. These basic beliefs can be of several types; empiricist philosophers like Hume and Locke hold that these beliefs are gained through the senses or introspection. Rationalist philosophers like Descartes and Spinoza hold that, if not all, at least some basic beliefs come from rational intuition. Epistemologist philosophers like Kant also hold that some basic beliefs are innate.[1] In contrast to foundationalism, coherentism claims that every belief derives some of its justification from other beliefs. coherentists argue that beliefs are mutually reinforcing.[2] In addition to the normative approaches, naturalistic tradition is another approach which holds a different point of view as for providing a general answer to the question of ‘ what credits beliefs as knowledge?’. As the name suggests, the naturalistic tradition describes knowledge as a natural phenomenon occurring in a wide range of subjects. Adult humans may employ reasoning to arrive at some of their knowledge, but the naturalists point out that children and adult humans arrive at knowledge in ways that do not appear to involve any reasoning. therefore, when a true idea has the appropriate causal history, then the idea counts as knowledge.[3]

In relation to noumenon and phenomenon mechanism, epistemology plays a role in providing the connection. Meaning that epistemology certifies whether a

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[1]- Peter D. Klein, "Epistemology," (1998), https://www.rep.routledge.com/articles/overview/epistemology/v-1/sections/the-naturalistic-answers-causes-of-belief-1.

[2]- See Laurence BonJour, "Knowledge and Justification, Coherence Theory Of," *Craig, Edward (Hg.). Routledge Encyclopedia of philosophy* 5 (1998).

[3]- Klein, "Epistemology".

phenomenon proves a noumenon scientifically or not. Therefore, we can say that epistemology is the bridge between phenomenon and noumenon.

Epistemology can also be subjective or objective. A subjective epistemology is called Epistemic internalism. According to internal epistemology, agents are able to make assessments of their own beliefs in order to determine whether they are epistemically positive. The objective epistemology is called epistemic externalism. According to external epistemology, there are conditions that must be met for a belief to be epistemologically positive. Such conditions can be regarded as logic as well.

Noumenal and phenomenal philosophies

In this section, we will discuss different philosophies and their approaches toward the conception of noumenon and phenomenon. In that regard, there are some philosophies which lead the different approaches. Idealism, materialism, and realism are shaping a trinity which represents the most important theories in this regard. Therefore, in this section, we will discuss these main philosophies to see how they relate to each other.

Before discussing the theories, it should be mentioned that in this section, Considering the vastness of the world of philosophy, we are considering these philosophies in a level which relates to our hypothesis. Therefore, we discuss them on their most well-known characteristics and we will not dive deep into these philosophies discussing every detail.

Idealism

As mentioned before, some philosophies have a phenomenal approach in essence. One of the most important philosophies in this sense is idealism. Hence, according to idealism thoughts, there are two major branches in regard to the conception of noumenon and phenomenon;

The first branch rejects separation of noumenon from the phenomenon. Meaning that the thinkers in this sense, believe in a monism theory or a united phase which all happens in our mind known as the idea. Under this conception idea is both the existence (noumenon) and the essence (phenomenon). The second branch accepts the existence of noumenon outside of human mind but it prioritizes phenomenon and they care about noumenon which is confirmed through a phenomenon (idea). In regard to these two types of approaches, idealism is divided into two types; ontological idealism and epistemological idealism.

In an ontological idealism or absolute idealism, the reality is what our conscious mind grasps. Hence ideas are the reality which matter and outer objects are dependent on human beings' ideas.

In an epistemological idealism, there is a reality outside of the human mind but it should be acknowledged by the human mind. In this sense, the process of epidemiology starts with the phenomenon and ends to a confirmed noumenon (knowledge). In this kind of idealism, Kant is the most well-known European philosopher.[1] Also, Farabi seems to be an epistemological philosopher however he also believes in some sort of ontological idealism at some point. In Farabi's philosophy, there are two ways to reach noumenon, 1- through reasoning (epistemology) 2- by imagination. Reasoning or epistemology is the way which philosophers apply. and through that, they can understand noumenon which our mind is capable of understanding them. But still, there is noumenon which we cannot sense and understand through reasoning, in this case, imagination is the way to reach such noumenon. for

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[1]- Paul Guyer and Rolf-Peter Horstmann, "Idealism," in *The Stanford Encyclopedia of Philosophy* ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2018).

example, God as for how it is (not the existence of God, but its characteristics as religions present). According to Farabi that is the way which prophets understood God despite its absoluteness.[1] Therefore, we can say that in Farabi's conception, imagination has the same role as the idea has in ontological idealism.

German idealism

German idealism was the philosophical movement in Germany in the late 18th and early 19th centuries which magnified above distinction between idealist thoughts. The most notable thinkers in the movement were Johann Gottlieb Fichte, Friedrich Schelling, and Georg Wilhelm Friedrich Hegel. But it doesn't mean that absolute idealism has been established by German idealism, as it can be traced back to middle east mysticism (Sufism) and medieval philosophers like Ibn-Arabi, and even ancient Greek philosophers like Plato. But German idealism has been credited for the systematic traits it has added to the absolute idealism, which is a special dialectic which happens in the realm of the idea in the context of history and culture of human beings. Therefore, it is said that by German idealism traditional idealism improved into a new idealism which involves a progressive insight into metaphysics concerning historical periods.

Perhaps the prominent features of German idealism are more evident in Hegel's philosophy. Hegel's own definition of philosophy given in his book 'Elements of the philosophy of right' shows a characteristic tension in his philosophical approach, he has

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[1] - Hasan Bolkhari, "Innovations of Farabi in the Conception and Function of Imagination," *human sciences* 13, no. 54 (2007).

written there, “is its own time comprehended in thoughts”.[1] it can be interpreted from the phrase “its own time” the element of a historical or cultural approach. And the phrase “comprehended in thoughts” is conveying the idealism which is the background of Hegel’s philosophy.[2]

Materialism

Materialism in its philosophical sense is a form of philosophical monism which holds that matter is the fundamental substance in nature, and that all things, including mental aspects and consciousness, are results of material interactions. Therefore, we can say that materialism is the exact opposite of ontological idealism. In such idealism, mind and consciousness are first-order realities to which matter is subject and secondary. In philosophical materialism the converse is true. Here mind and consciousness are by-products or epiphenomena of material processes (the biochemistry of the human brain and nervous system, for example) without which they cannot exist. According to this doctrine, the material creates and determines consciousness, not vice versa.

The most prominent characterization of materialism attributes to it as a cardinal principle, the assertion that “only matter is real” where matter is a historical variable with values ranging from Democritus’ “atoms in the void” to Dirca’s “positron” and

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[1]- Georg Wilhelm Fredrich Hegel, *Hegel: Elements of the Philosophy of Right*, trans. H.B. Nisbet (Cambridge University Press, 1991). 21

[2]- Paul Redding, "Georg Wilhelm Friedrich Hegel," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Stanford Metaphysics Research Lab, Stanford University, 2018).

where the word “real” is an ambiguous term meaning either existence, importance or necessary condition.[1]

Hence, in regard to the system of noumenon and phenomenon, we can say that in materialism also noumenon and phenomenon are not separated and believed to be a united phase. But with this difference that it is independent of our consciousness happening due to physical materials. Therefore, in materialism, the matter is the reality of the material world.

Materialism is a monist ontology. As such, it is in contradiction with ontological theories based on dualism or pluralism as well.

Materialist theories are mainly divided into three groups;

- Naive materialism; which identifies the material world with specific elements (e.g. the scheme of the four elements; fire, air, water, and earth, devised by the pre-Socratic philosopher Empedocles).
- Metaphysical materialism; which examines separated parts of the world in a static, isolated environment.
- Dialectical materialism; which adapts the Hegelian dialectic method for materialism. the difference between dialectic of materialism with the Hegelian dialect is that Hegelian dialectic is fundamentally idealistic while dialectic of materialism fundamentally puts materialism in place, examining parts of the world in relation to each other within a dynamic environment.

The most famous dialectical materialist would be Karl Marx. Marx and his friend Friedrich Engels considered Hegel’s view of dialectics as an advance over

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[1]- Sidney Hook, "What Is Materialism?," *The Journal of Philosophy* 31, no. 9 (1934). 236

previous systems of philosophical understanding regardless of the conception of idealism mode loaded on it. So they loaded it with the materialistic mode in order to make it their proper dialectic. Marx says “My dialectic method is not only different from Hegelian but is its direct opposite. To Hegel, …the process of thinking which, under the name of ‘the idea’ he even transforms into an independent subject, is the demiurge (creator) of the real world. And the real word is only external, phenomenal form of ‘the idea.’ With me, on the contrary, the ideal is nothing else than the material world reflected by the human mind and translated into forms of thought.” [1]

Realism

In metaphysics, realism about a given object is that this object exists in reality independently of our mind. In philosophical terms, these objects are ontologically independent of someone’s conceptual scheme or perception. Therefore, we can say that there are two general aspects of realism. First, there is a claim about existence. Tables, rocks, the moon, and so on, all exist, as do the following facts: the table's being square, the rock's being made of granite, and the moon's being spherical and yellow. The second aspect of realism about objects and their properties concerns independence. The fact that the moon exists and is spherical is independent of the human mind. Likewise, although there is a clear sense in which the table's being square is dependent on us (it was designed and constructed by human beings after all), this is not the type of dependence that the realist wishes to deny. The realist wishes to claim that apart from the mundane sort of empirical dependence of objects and their properties familiar to us from everyday life, there is no further (philosophically interesting) sense in which

[1]- Joseph Stalin, *Dialectical and Historical Materialism*, vol. 25 (International Publishers New York, 1940).

everyday objects and their properties can be said to be dependent on anyone's consciousness.[1]

In regard to the conception of noumenon and phenomenon, realism considers them separately from each other meaning that noumenon has an existence outside of our mind and it is independent of the phenomenological phase in our mind. It means that in the phenomenological phase, our mind discovers the noumenon which already was existed. Hence, the main difference between realism and idealism is that in idealism noumenon is created by our mind and the phenomenological phase is the reality which represents both noumenon and phenomenon. In other words, while idealism has a monist approach, realism has a dualist approach which comes from the separation between noumenon and phenomenon. And the difference between realism and materialism is on the same basis. As mentioned before, materialism is also monism but with this distinction that in materialism considers monism in the one phase of existence of the material world as the noumenon which is as the exact opposite to idealism. Hence, we can say that realism in this sense stands in the middle because of having the dualism approach. Although, realism is less opposed by epistemological idealism. Since, in epistemological idealism also, the existence of noumenon is accepted, still, there is a contradiction considering the second characteristic of realism which is being independent of the mind. In epistemological idealism, only the noumenon which is comprehended by human consciousness is admitted. In epistemological idealism, first, there is an idea (theory) which through logic or epistemology will be tested to see if it is correct or not. If it is correct then such knowledge is presenting a noumenon. In realism

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[1]- Alexander Miller, "Realism," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Stanford: Metaphysics Research Lab, Stanford University, 2016).

though, it is not needed for a noumenon to be comprehended by the mind in order to be counted as something which is existed.

Dualism is the main characteristic of realism. Dualism contrasts with monism, which is the theory that there is only one fundamental kind, the category of thing or principle; and, rather less commonly, with pluralism, which is the view that there are many kinds or categories. In philosophy, dualism is the theory that the mental and the physical are, in some sense, radically different kinds of thing. Because common sense tells us that there are physical bodies and because there is intellectual pressure towards producing a unified view of the world, one could say that materialist monism is the 'default option'. Discussion about dualism, therefore, tends to start from the assumption of the reality of the physical world, and then to consider arguments for why the mind cannot be treated as simply part of that world. Therefore, dualism in realism takes both immaterial and material worlds into account independently from each other.

However dualism can be found in the ancient philosophers' thoughts, Rene Descartes is the most significant figure who shaped it as a well-known theory, called Cartesian Dualism.[1]

Legal theories

In this section, we discuss legal theories, considering the noumenon and phenomenon theory. In this sense, natural law and positivism will be the most prominent legal theories to discuss.

Natural law

Natural law theory has a long and distinguished history, encompassing many and varied

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[1]- Howard Robinson, "Dualism,"ibid. (2017).

theories and theorists. According to d'Entreves the history of natural law can be categorized into three distinct phases within ancient, medieval and modern times, based on the differences of meaning and purposes of the natural law theory in these different eras. In the ancient and classical era mostly Roman law is the reference, in that time the Roman Empire had managed to conquer many lands and there were different nations from Europe and North Africa living under its rule. Therefore, the Roman legal philosophers tried to use natural law theory as a tool to justify one comprehensive legal system for all of these different nations with different believes and different cultures. Thus natural law theory was to support this idea that different nations could be demonstrated to share the rational faculty necessary for acquiescing to law, which in turn qualified them for the status of citizenship. In the medieval era, it was religions, mostly Christianity, defining natural law thus clergy theorists and canonist philosophers in this era used to relate natural law as higher law which has been determined by God. After the enlightenment times and renaissance, the function of the natural law doctrine shifted again. As the Humanism movement was evolving, the validation of natural law was transferred from the divine will to the faculty of human reason itself. Later, this meaning of natural law led the theories toward the natural rights or human rights as the central core of natural law, hence in the modern era, natural law is to support individuals' rights against governments.[1] The interesting factor in the analysis of d'Entreves on Natural law history is that he has considered the social, economic and political situation affecting the definition of the theory of Natural law which is very ironic if we consider the factors which distinguish it from positivism. This account of a

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[1]- See Alexander Passerin d'Entreves, *Natural Law: An Introduction to Legal Philosophy* (Routledge, 2017).

summary on the history of Natural law theory, although is very common, is very limited on the events which have happened in Europe area and the literature that has been produced there. But if we consider the conception of the natural law it can be found out that the conception has got an even longer story. For example, in the ancient time, in the Persian Empires, there was a regulated legal practice of natural laws very similar to modern era definition of natural law. The evidence is the human rights charter of Cyrus the great which has banned slavery and supported freedom of people in their believes and their religions. Or ancient scripts found in Persepolis which were indeed very detailed receipts of payments to the workers who built the monuments showing that such freedoms stated in Cyrus's charter were not just slogans rather being very validly guaranteed rights.

in another point of view Natural law theory can be considered within two distinct phases; one which considers natural law as a tool for justifying a kind of sovereignty over individuals (as it was in the classical and medieval era), oppositely the other, tries to protect individuals against the sovereignty. These approaches can be regarded as; traditional natural law and modern natural law. Traditional natural law theory offers arguments for the existence of a higher law, elaborations of its content, assuming that there are moral grounds and standards which enacted rules should obey them. In the period of the Renaissance and beyond, discussions about natural law were tied in with other issues: assertions about natural law were often the basis of or part of the argument for natural rights (later referred to as human rights) – individual rights that included rights against the state, and thus served as limitations on government. The natural rights approach would be further developed in the "social contract" theories of

Thomas Hobbes; John Locke, who also wrote extensively on natural law and Jean - Jacques Rousseau.[1]

Natural law theory, in summary, is about the existence of rights independent of rules. Meaning that if we consider an enacted rule as a phenomenon, natural law considers a noumenon which exists and legislation or judicial decisions should conform to that. Therefore, natural law, in the context of laws and legal acts has got a dualism which considers a noumenon (higher law or human rights) separated from phenomenon (legislation or judicial decision).

Positivism

In The Stanford Encyclopedia of Philosophy, legal positivism has been defined as the thesis that the existence and content of law depend on social facts and not on its merits. The positivist thesis does not say that the law's merits are unintelligible, unimportant, or peripheral to the philosophy of law. It says that they do not determine whether laws or legal systems exist. Whether a society has a legal system depends on the presence of certain structures of governance, not on the extent to which it satisfies ideals of justice, democracy, or the rule of law. What laws are in force in that system depends on what social standards its officials recognize as authoritative. The fact that a policy would be just, wise, efficient, or prudent is never sufficient reason for thinking that it is actually the law, and the fact that it is unjust, unwise, inefficient or imprudent is never sufficient reason for doubting it. According to positivism, the law is a matter of what has been

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[1]- Brian Bix, "Natural Law Theory," in *A Companion to Philosophy of Law and Legal Theory*, ed. Dennis Patterson (Blackwell Publishing Ltd, 1996).

decided or practiced.[1]

Positivism can be defined within two major schools of thoughts; British positivism and German positivism. the above definition of positivism which comes from an institute in a country with a common law, system is the definition of British positivism which is based on Empiricism. In this definition which suggests 'law depend on social facts and not on its merits' law has been credited as a product of social experience as empiricism puts it that way. The most prominent theorists of British positivism are Jeremy Bentham, Thomas Hobbes, John Locke, and David Hume. On the other hand, German positivism is based on Idealism. Thus, German positivism suggests that law is independent of both merits and social facts and rather depends on Ideas, whether it has good merits or not or whether it has been experienced by the society (as a common issue) or not. Hans Kelsen as the main thinker of German legal positivism considered such idea as the 'Basic norm'[2]. in Kelsen's positivism, efficacy is not the reason for the validity of law, rather it comes from the existence of a validating norm which validates the law in terms of what is, as opposed to what ought to be. This being law in terms of as what it means the positivist characteristic of his thesis. And this kind of validity is based upon a basic norm which shows the idealistic characteristic of Kelsen's positivism. The basic norm is the main norm beyond which there is no other norm. it is the source of all norms and it performs the function of being the authority behind all other norms. The basic norm has the power of being the first legislator which creates other norms and gives them their validity.[3]

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[1]- Leslie Green, "Legal Positivism," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2018).

[2]- *Grundnorm*

[3]- Hans Kelsen, *Pure Theory of Law* (Univ of California Press, 1967).

Just as opposition and contrast to natural law, positivism has a monism and phenomenal approach. In other words, it is a social construction.[1] A trinity similar to the trinity between realism, idealism, and materialism in philosophy in general, can be considered in the philosophy of law as well. Hence, the two kinds of positivism (British positivism and Germanic positivism) are the monist ideologies which either do not consider existence of the noumenon of the law (merits of the law) independent of the phenomenon of the law (sources of the law), like German positivism, or if it believes in existence of the merits independent of the sources, it doesn't take it into account as far as it has not been approved by the society, like British positivism. And natural law in this trinity is the dualistic ideology which credits the existence of the noumenon of law (rights or merits) independent of the phenomenon of law (rules or the sources). In this trinity British positivism is closer to natural law theory, as it agrees with the existence of the merits of law independent of the source, but since from the point of validity it doesn't necessarily take the merits into account, it will be a phenomenal approach in the sense of the philosophy of law. One of the best example to clarify it is what Hobbes has written in Leviathan, arguing that law is dependent on the sovereign's will. Meaning that it is the sovereign which constitutes law and it is valid regardless of being just or unjust.[2]

Also see Suri Ratnapala, *Jurisprudence* (Cambridge University Press, 2017). 58-60

[1]- Brian Leiter and Matthew X. Etchemendy, "Naturalism in Legal Philosophy," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2017).

[2]- Jean Hampton, *Hobbes and the Social Contract Tradition* (Cambridge University Press, 1988). 107

Public law and private law

If we go further in depth, we can also examine different branches of law in the noumenon-phenomenon structure. For example, it seems that private law is asserting dualism and public law, on the contrary, has a monism trait. Public law thinkers believe it is rules which create rights. while on the other hand, private law thinkers believe that legal phenomenon (as laws, contracts judicial decision) are based on rights coming from the nature and personality of human beings.

Moreover, if we consider the origins of public law and private law, again we can conclude that private law has dualistic and noumenal nature and public law has a monist and phenomenal nature. The origin of private law is personality. It means that if a contract or possession (in the case of ownership) generates rights it is because of the noumenal pre-existence of free will which is based on the personality of the human being. In the case of public law, according to the theory of social contract, the origin of public law is the social contract.[1] or in a more objective sense, the constitutions. From that, we can deduce that public law and authority are basically formed out by a phenomenon (social contract) and has a phenomenal nature. Hence, public law and authority had not any real existence before the constitution of social agreement. whereas civil rights of private ownership, freedom of will or freedom of contract can be referred back to the existence of human being personality. Surely public law and sovereignty can be traced back to the noumenon of free will and personality too, but indirectly and

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Also see Thomas Hobbes, *Thomas Hobbes: Leviathan (Longman Library of Primary Sources in Philosophy)* (Routledge, 2016).

[1]- Jean-Jacques Rousseau, *Rousseau: The Social Contract and Other Later Political Writings* (Cambridge University Press, 2018).

depended on another phenomenon. in other words, sovereignty is a phenomenon which informs us of another phenomenon (the social contract) which finally will lead us to freedom of will/contract too. Therefore, in a dualistic approach, it is private law which has superiority over public law and public law has a phenomenal and depended existence which comes from a civil tool (a contract).

Nonetheless, there are some other arguments which assert exactly vice versa. One the magnified the opposing theories has been asserted by Hegel. Also, David Hume and Karl Marx have arguments against the social contract theory, but since from the point of view of our research, their arguments are very similar to Hegel's (at least on their conclusions) we suffice on bringing Hegel's argument against the social contract theory. according to Hegel, "we are already citizens of the State by birth"[1] and given that the State is no mere administrative organ but "mind [Geist] objectified," wherein freedom is actualized, then "it is only as one of its members that the individual himself has objectivity and personality.[2] In other words, Hegel believed that the state (as the idea) is the reality which provides personality (as the noumenon and in its legal meaning) to individuals. Hegel believed that social contract has cogency only if it separates the individual from the State thus making membership of the State optional, a matter of voluntary choice. This means that the State's existence depends on the individual's capricious will through his individually given consent. The consequence of such a view is that it makes the State a mere contingent agglomeration of individuals which, for

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[1]- Georg Wilhelm Friedrich Hegel, *The Philosophy of Right* (Hackett Publishing, 2015). 242

[2]- ibid. 156

Hegel, obscures the true relationship between the individual and his State.[1]

Thus for Hegel, the public law is not based upon a contract since that requires arbitrariness of the parties to such contract. While individuals have not such arbitrariness. Hegel, after refuting the theory of social contract, argues that the state or sovereignty is a product of human being ideas which has been evolved through history. Therefore, it public law is real and superior to private law and legal relationships between individuals which receive their validity from sovereignty.[2]

However, there are also critics to Hegel's arguments, since it will be a long drama and after all, there is not (and should not be) a determinedly final answer which all can agree on, we suffice to these main theories as such will be working for our point of research.

Ownership and sovereignty

In this section, we discuss ownership and sovereignty based on the philosophical thoughts and legal theories and the frame which they make. And also the third notion as public ownership will be discussed. In the end, the relationship between these notions will be discussed based on the second part of the methodology of this research.

Ownership

Ownership is a legal title between an individual and a property or an asset coupled with exclusive and absolute right to possession which can be transferred wholly or partly by selling or renting.

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[1]- Christopher J Berry, "From Hume to Hegel: The Case of the Social Contract," *Journal of the History of Ideas* 38, no. 4 (1977). 691

[2]- Hegel, *The Philosophy of Right*.

From above definition three main characteristics can be deduced for ownership;

- being exclusive; meaning that others are excluded from such right over the property owned by its owner. And only those who have the title can possess the property.
- Being absolute; meaning that in principle an owner can use his/her property in any way that he/she wants, except in the case which is prohibited by law.
- Being transferable; deduced from the previous characteristics, ownership of a property (wholly or partly) can be transferred to another person through a contract or by inheritance.

Ownership or property right as a general term can be divided into three categories;

- Private ownership or private property, which in this research by the term ownership we mean this sort of ownership. Because in the context of law it is very usual.
- Common ownership
- Collective ownership

Common ownership and collective ownership will be discussed later under the section of public ownership

Ownership or property right has always been an important and controversial issue in the philosophical debates, however, some philosophers like John Rawls argued that questions about the system of ownership are secondary or derivative questions, to

be dealt with pragmatically rather than as issues in political philosophy.[1] In fact, Rawls suggests that philosophy should invest in justice more than property and ownership. But it seems that issues about the property are inevitably implicated in some of the issues about justice that have preoccupied political philosophers in recent years. There have been different theories on certain property institutions which may be better than others for justice.[2]

Therefore, a lot of philosophers ranging from ancient philosophers like Plato and Aristotle to medieval philosophers, like Aquinas, Kant, Hobbes, Locke, Hume, Hegel, and modern philosophers like Marx and Mill who have written elaborately their theories on ownership and property.

The two main branches of theories on ownership perhaps come from the two ancient Greek philosophers; Plato and Aristotle. In Plato's philosophy, society is the principal rather than individuals, hence private ownership is not the case and public ownership is accepted, the main difference with Marxism is that Plato's theory on property rights comes from idealistic basis while Marx's theory is materialistic. Aristotle held the opposite theory by recognizing individuals as the principle rather than society. Hence in Aristotle's philosophy, private ownership has been recognized and it has an important role in freedom and promoting virtues like prudence and responsibility. In the medieval period, Thomas Aquinas continued discussion of the Aristotelian idea that virtue might be expressed in the use that one makes of one's property. In the early modern period, philosophers turned their attention to the way in

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[1]- John W Chapman, "Rawls's Theory of Justice," *American Political Science Review* 69, no. 2 (1975). 71

[2]- Jeremy Waldron, "Property and Ownership," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Stanford: Metaphysics Research Lab, Stanford University, 2016).

which property might have been instituted, with Hobbes and Hume arguing that individuals are not naturally owner of properties and that property must be understood as the creation of the sovereign state.[1]

Locke's theory is widely regarded as the most interesting of the canonical discussions of property. because he took as his starting point that God gave the world to men in common, he had to acknowledge from the outset that private entitlements pose a moral problem. How do we move from a common endowment to the 'disproportionate and unequal Possession of the Earth'? Unlike some of his predecessors, Locke did not base his resolution of this difficulty on any theory of universal consent. Instead, in the most famous passage of his chapter on property, he gave a moral defense of the legitimacy of unilateral appropriation known as the theory of labor. Locke argued that an original owner is one who mixes his or her labor with a thing and, by commingling that labor with the thing, establishes ownership of it.[2] but it had some problems. First, without a prior theory of ownership, it is not self-evident that one owns even the labor that is mixed with something else. Second, even if one does own the labor that one performs, the labor theory provides no guidance in determining the scope of the right that one establishes by mixing one's labor with something else.[3] Richard Epstein argues that for Locke, the reason one owns one's body is that one occupies or possesses it; thus,

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[1]- Thomas Hobbes, "De Cive: The English Version, Ed. Howard Warrender," *Oxford: Clarendon Press* 123 (1983).

[2]- Jon Pike, "John Locke: Second Treatise of Government," *Reading Political Philosophy: Machiavelli to Mill* (2000).

[3]- Carol M Rose, "Possession as the Origin of Property," *The University of Chicago Law Review* 52, no. 1 (1985). 73

this labor theory of property rests on a right established by first possession.[1] Nowadays in most legal systems possession (with the intention to obtain the title) has been known as the origin of ownership. (for instance, articles 140 and 146 of Iran's civil code)

Hegel's account of property centers on the contribution property makes to the development of the self (while in Marx's theory it is on the development of the society). and giving some sort of external reality to what would otherwise be the mere idea of individual freedom.[2]

In summary, it can be said that there are two major theories in regard to ownership; one results in recognizing private ownership (liberalism) and the other leads to socialism which recognizes or prioritizes public ownership. And each one of them can be divided into different approaches of being idealistic, materialistic or realistic.

Public ownership

Public ownership presents a system which resources are governed by rules that make them available for use by all individuals equally and without exclusion. The public ownership can be divided into two categories of common properties and collective properties. Common properties are shared properties or resources which can be ordinarily used by all individuals. Collective properties are important properties or resources which the community (or the state as the representative) determines how they should be used. In Islamic law, common properties are called *Mubahat* and the collective properties are called *Anfal.*

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[1]- RA Epstein, "Possession as the Root of Title'(1978)," *Georgia Law Review* 13.

[2]- Waldron, "Property and Ownership."

If we consider the main characteristics of public ownership and compare them to private ownership characteristics, we will see that they are exactly opposite of each other;

- Not being exclusive; unlike private property, public property is not for the use or possession of a certain person(s) and everyone even foreigners can use such property on an ordinary basis and as much as his or her rational need is. For example, everyone can drink from the water fountains in the city of Zürich.
- Not being absolute; unlike private property which is up to the owner how he or she uses it, public properties are not like that and everyone who uses them should do his/her best to keep the property safe and undamaged. Thus, whereas you even can destroy your own private property, you cannot do so to the public properties. Even in the case of collective properties, conditions are stricter and such resources are managed by states.
- Not being transferable; unlike the private property, no one can sell or lease public property to someone else.

In spite of private ownership and public ownership having the mutual term “ownership”, considering the main characteristics compared with each other, we can say they are completely different notions. And also it should be noted that public ownership has the same difference with state ownership as well. In fact, characteristics of state ownership are the same as private ownership, only with this difference that the person as owner, in state ownership, is a government. While in private ownership it is an individual as the owner, otherwise there is no other distinction between state ownership and private ownership.

Sovereignty

As the origin and theories of sovereignty are the same as public law and we have already discussed them on the topic of public law, we can claim that the main theories on the sovereignty have been already discussed as well. In general, there were two major theories; the dualist theory that comes from philosophers like Jean - Jacques Rousseau, Hobbes and John Locke, known as the social contract theory and the monist theory which has been originated from philosophers like David Hume and Hegel who put sovereignty on the top as the principal. With that in mind, we continue on the definition and the characteristics of sovereignty.

However, there have been different meanings for sovereignty across history based on who is the holder of the sovereignty, the absoluteness of sovereignty and the internal and external dimensions of it, it can be said that it has a core meaning as "supreme authority within a territory" which is based on its core characteristics as;

- Being authority; meaning that the holder of sovereignty has a legitimate right to command and to be obeyed.
- Being supreme; meaning that in its range, it is the highest authority.
- Being within a territory; meaning that sovereignty should have a range within a determined and specific territory.
- Being exclusive; meaning that it is only the legitimate sovereign that can practice it (from the external point of view). Hence, foreign states or foreign sovereignties should recognize and respect such sovereignty.

Sovereignty can also be absolute or non-absolute. Bodin and Hobbes envisioned sovereignty as absolute, extending to all matters within the territory, unconditionally. It is possible for an authority to be sovereign over some matters within a territory, but not

all. Today, many European Union (EU) member states exhibit non-absoluteness. They are sovereign in governing defense, but not in governing their currencies, trade policies, and many social welfare policies, which they administer in cooperation with EU authorities as set forth in EU law. Absolute sovereignty is quintessential modern sovereignty. But in recent decades, it has begun to be circumscribed by institutions like the EU, the UN's practices of sanctioning intervention, and the international criminal court.[1]

Analysis of the conceptions together

After defining and distinguishing ownership (private, state and public) and sovereignty, we are to analyze their position in regard to each other. First of all, as it was explained, ownership, as it is mostly defined in the most of legal systems, is a matter of private law, and there are significant differences between private ownership and public ownership. In fact, public ownership is more close to sovereignty as both of them are matters of public law. Hence as it was explained about private law and public law, (private) ownership is a noumenal conception or dualistic conception. Meaning that by establishing a possession deliberately for owning an object, first ownership is constituted.[2] This possession is separated from the ownership right itself and also from its previous noumenon which is the personality of the possessor. This causation relation can be acknowledged objectively. Hence, ownership right exists whether it is acknowledged by authority or not. Therefore, if for example, someone's ownership is disputed, and the court decides that he is the owner, his right is not constituted just after

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[1]- Daniel Philpott, "Sovereignty,"ibid.

[2]- later, the first title may transfer through contracts or inheritance. Still the dualistic nature of property right is in place.

the verdict, rather it acknowledges the property right of the person before the verdict since his possession, contract or inheritance had established the right. Thus ownership has noumenal, realistic (dualistic) nature.

On the other hand, sovereignty and public ownership have the phenomenal trait. Meaning that before being constituted by the society and authority, they do not exist whit those special rules and characteristics which have been explained. Of course, there were some free properties (like unowned lands, water, trees etc.) that everybody could use. But those properties were different from public property conception. As the main difference, a free property can be possessed and be owned by some person but a public property cannot be captured and owned as private property. Or there may be some sort of authority in a tribe or a family but none could be supreme and recognized by others. Therefore, this kind of regulated systems as sovereignty and public property is something that happens after a society formed out and manage to constitute such conceptions. Hence, sovereignty and public ownership are a matter of phenomenal monism (either with idealistic or materialistic approach) which, their existence is up to the decision of society. And it doesn't exist before such a decision. For example, assuming a state which has managed to become independent from another state, in this case, the sovereignty of this new state cannot be logically found before becoming independent from the former state.

The relation between the conceptions

In this section, we will analyze the relations between (private) ownership, public ownership, state ownership and sovereignty based on the four types of relations between universals explained in the methodology section. To remind it briefly there would be one of the following relations between two conceptions;

- Equality of sets: when the two universals are including the same entities
- Disjunction of sets: when the two universals has no mutual entities and are completely different.
- Proper subsets: when one of the universals has more entities and involves all of the other universal's entity as well
- Intersection of sets: when the two universals has mutual entities but also each one has entities which the other one has not.

The relation between ownership and public ownership

Considering the definitions and characteristics distinguished in the previous sections, there were no mutual entities between private ownership and public ownership. And if we test it in the logical mechanism of the four relations;

There was not the same definition and entities between private ownership and public ownership, we cannot say that *each private ownership is public ownership* or vice versa. therefore, the equality between the two sets is rejected.

Also, we cannot say that *some entities of private ownership are public ownership or some entities of public ownership are private ownership.* Hence, proper subsets and the intersection of sets are also rejected

Subsequently, there is the relation of disjunction which makes sense between public ownership and private ownership. This is a fact that *no private ownership is public ownership and vice versa.*

The relation between ownership and state ownership

As it was defined earlier, state ownership has all the elements of private ownership except that the owner is the state instead of a private owner. Therefore;

It would not be equality since it does not make sense to say *every ownership is state ownership* or vice versa.

And also it doesn't make sense to say *no entities of the state ownership are ownership or no entities of the ownership are state ownership.* So disjunction is also refuted.

So there are definitely mutual areas between public ownership and private ownership, but is it proper subsets or intersection of the sets? It doesn't make sense to say *some entities of the state ownership are ownership and some of it are not ownership,* however, it makes sense to say *some entities of the ownership are not state ownership.* on the other hand, it nicely makes sense to say that *all entities of the state ownership are ownership.* Thus we can deduce that the relationship between ownership and state ownership is proper subsets with ownership involving state ownership in its circle.

The relation between ownership and sovereignty

As it is explained before, due to sovereignty and public ownership being in the same side, the relation between ownership and sovereignty would be like the relationship between ownership and public ownership; so equality of the sets is refuted due to *ownership and sovereignty having not the same entities.* And proper subsets or intersection of the sets are also rejected since we cannot see a fact as *some entities of sovereignty being ownership or some entities of ownership (private ownership) being sovereignty.* Hence the relation between ownership and sovereignty is a disjunction of the sets.

The relation between sovereignty and public ownership

It is not equality since it doesn't make sense to see every sovereignty as public

ownership and also disjunction of sets is rejected since we cannot say that *there are no mutual entities between them.* Then it is either proper subsets or intersection of the sets. If we consider the two categories of public properties, it is only collective properties (like hydrocarbon resources) which are controlled by the states and therefore, a matter of sovereignty. Then, *some entities of the public ownership (common properties) are not entities of sovereignty and some entities of the sovereignty are not public ownership* it means that proper subset is rejected. Subsequently, the relation between sovereignty and public ownership is the intersection of the sets. It makes sense to say *some entities of public ownership (collective properties) are sovereignty and some entities of sovereignty are public ownership.*

The relation between sovereignty and state ownership

Since the relation between ownership and state ownership is proper sets with the generality of ownership, and the relation between ownership and sovereignty is a disjunction of the sets, we can deduce that the relation between sovereignty and state ownership is a disjunction of the sets as well.

It should be mentioned that governments as the holder of their property do not differ from private owners.

Ownership and sovereignty over hydrocarbon resources

Nowadays, one of the main international law problems between neighbor states is on mutual hydrocarbon reservoirs. Since such reservoirs lie across a boundary line, as well the oil/gas in place located in areas where different states have overlapping claims, the

rights over those reservoirs are a matter of sovereignty.[1] The fluid nature of hydrocarbon makes the situation even more complicated. By extracting, the hydrocarbon beneath one territory may go into the hands of the neighbor state. Subsequently, neighbor states may consider the extracted hydrocarbon on the other side of the territory as their property which is going into the hands of the opposite neighbor wrongfully. They may even rely on the maxim of *ad coelom*[2] which even as for private properties is accepted on a very limited basis. In the legal system of the United States of America and Canada, there is a common law doctrine known as the rule of capture which in regard to the shared reservoirs between private owners provide a solution. According to the rule of capture doctrine, an agent can become the owner of an unowned property by possessing it.[3] In the case of oil and gas resources or similar natural resources such as underground waters, the rule of capture means a landowner can extract resources on his land as much as he wants regardless it is coming from beneath his land other lands. Later this doctrine became limited and a landlord now is obliged to respect correlative rights of other neighbors. However still on the basis of this doctrine, it is not important if the extracted resources have been beneath a neighbor's land.[4] Therefore, according to the rule of capture doctrine, underground resources are

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[1]- Karla Urdaneta, "Transboundary Petroleum Reservoirs: A Recommended Approach for the United States and Mexico in the Deepwaters of the Gulf of Mexico," *Hous. J. Int'l L.* 32 (2009). 367

[2]- meaning that the space beneath and above of a property land is annexed to it

[3]- Debra L Donahue, "Western Grazing: The Capture of Grass, Ground, and Government," *Envtl. L.* 35 (2005). 730

[4]- Bruce M Kramer and Owen L Anderson, "The Rule of Capture-an Oil and Gas Perspective," ibid. 900

considered unowned properties which can be claimed by extracting as the mean of possession. In fact, the rule of capture doctrine stands in contrast with *ad coelom* doctrine. In recent years, there have been many criticisms over this doctrine as it results in a race to the bottom between neighbor landowners attempting to withdraw as much hydrocarbon as possible.[1] Regardless of these criticisms, this doctrine is not even applicable in the case of the shared reservoir between to states. Because this doctrine is not accepted in all legal systems, only common law systems which allow private ownership over natural resources onshore. In the majority of legal systems, natural resources are subject to the public property regime and are not considered as free unowned properties. Even in Canada and the US, offshore reservoirs are under public ownership regime. Therefore, the doctrine of the rule of capture is not applicable in the international level as in this context the resources are not considered as unowned free properties.

The solution for the ownership claims

Having the distinction between the conceptions of ownership (private and public) and sovereignty, explained in the previous section, in mind, a lot of questions and disagreements on the topic of natural resources like hydrocarbon will be solved or at least parties of the disputes can have a clear understanding of the situation and get on the same page by considering the facts deduced from the distinction on their arguments. In many cases, neighbor governments credit public ownership with characteristics which is in private ownership and likewise, they consider a noumenal characteristic for

[1]- Barrett B. Schitka, "Applying Game Theory to Oil and Gas Unitization Agreements: How to Resolve Mutually Beneficial, yet Competitive Situations," *The Journal of World Energy Law & Business* 7, no. 6 (2014).

public ownership as well. Subsequently, this makes them consider this right in an objective manner which has been existed before and will be held on the property. While such characteristics are attributable to private ownership, not public ownership. However, one may say that in international level, public ownership, like sovereignty, have the exclusiveness and each state, considering others states, has an exclusive interest in its public property. But this exclusiveness doesn't mean that in international scale, public ownership obtains characteristics of ownership right. In international level, despite the exclusiveness, public ownership is still a matter of sovereignty hence a matter of rule rather than a matter of right (as independent from such rules).

The solution for the sovereignty claims

Now that we have understood that, public ownership is totally different from private ownership, part of the problem has been solved and arguments based on the mixed approaches on public ownership with private ownership will be dropped applying this doctrine. But knowing public ownership as a matter of sovereignty is still a big problem. In this part, ironically, the solution lies in the phenomenal nature of sovereignty and public ownership. As such matters are subjective, they are subject to change and agreement if the authorities want to. In modern international law, nowadays, states can tolerate and recognize other's sovereignties and they even join conventions which have given this attribute to sovereignty as it is not absolute. The same solution is applicable in the case of public ownership. There are examples showing that different countries have already started such arrangements. Agreements between the United States and Mexico over the shared hydrocarbon reservoirs in the Gulf of Mexico and shared waters of Colorado River are a good example, by such agreements the parties agreed on a binational framework through which to co-develop and jointly manage

these transboundary natural resources.[1] The contractual frame which states make such arrangements through is called unitization agreements. Unitization agreement, Internationally, takes place within multi-layered frameworks of law. When a reservoir straddles the boundaries of two or more sovereign countries. By unitization agreements sovereign states, not just can solve their legal disputes, can maximize their profit due to conducting an integrated efficient rate of production. [2]

Conclusion

Hydrocarbon resources, due to being scarce and unrenewable, have caused controversial issues in recent decades in legal and political debates. Recently one of the most problematic issues under this topic has been the disputes over shared hydrocarbon resources between two or more countries. Due to the fluid nature of hydrocarbon resources, neighbor states usually compete over producing the most possible amount of hydrocarbon which usually leads to inefficient production rates and also legal disputes with a background of ownership and sovereignty. Also, on the other hand, the concepts of ownership and sovereignty have always been controversial notions when it comes to legal philosophy thoughts. These two notions have been always in contact with each other, in a way that considering different approaches in philosophy, their distinction and boundaries have become very obscure. And with regard to the mentioned challenges,

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[1]- Bruno Verdini Trejo, "Charting New Territories Together: Laying the Foundations for Mutual Gains in United States-Mexico Water and Energy Negotiations" (Massachusetts Institute of Technology, 2015). 3

[2]- Jacqueline Lang Weaver and David F Asmus, "Unitizing Oil and Gas Fields around the World: A Comparative Analysis of National Laws and Private Contracts," *Hous. J. Int'l L.* 28 (2006). 6-10

this ambiguity makes the mentioned challenges even harder to solve.

In this research, we used two methods to make the notions and their characteristics distinguished from each other;

- Noumenon and phenomenon method; which through it we explained how the main philosophical theories; idealism, materialism, and realism relate to each other and their connection in shaping the legal theories of natural law and positivism and subsequently the theories of public law and private law. We concluded that theories in this regard present either monism, which assumes that it is rules which make rights. or dualism which assumes that rights exist independent of rules. We reached this result that sovereignty as a matter of public law is from the nature of monism and on the other hand ownership as a matter of private law has a dualistic trait. Therefore, ownership is a right which exists whether it is supported by a legal phenomenon (regulations and laws, judicial decisions or even a contract) or not.
- The four types of relationship between two universals; which through this method we examined the different notions of ownership and sovereignty. The result was that ownership and sovereignty are completely separated having no mutual entities.

By defining ownership and explaining its characteristics we could distinguish ownership from public ownership. Ownership as a topic of private law is completely different from public ownership. As the origin of ownership is possession, hydrocarbon resources are not subject to ownership right as far as they are underground without been produced by states. Nevertheless, oil/gas in place is subject to Public ownership regime. And it is not true to consider such resources as completely free properties. As we

distinguished public ownership from ownership right, we found that public ownership is completely different from ownership right. Public ownership, in the case of collective properties (like hydrocarbon resources), is a matter of sovereignty. Therefore, like sovereignty, it has got a phenomenal trait. Then public properties have also the nature of rules rather than the nature of rights. If it had the nature of right (like property right), due to being objective, it could be decided which state actually owns the property, but when it has the phenomenal nature of the rules, it is subjective and both states claim the resources and there is no justified criterion that one state's sovereignty could be preferred on the other. Therefore, the applicable solution the neighbor states in this cases is agreeing on a jointly management and production of the shared reservoir which the well-known structure for such cooperation is unitization agreements.

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