THE VALUE OF TRUTH

Preface

In this essay, literature is to be the language through which I will try to exemplify the different types of truth and their value for the individuals and the social community[[1]](#footnote-1). As for Aristotle, I understand the world to welcome human observation and scrutiny, as knowledge of truth can only be found through observation of the universe. Imitation[[2]](#footnote-2) is an “instinct of our nature” [[3]](#footnote-3) which allows individuals to capture, through the various forms of art, the essence of the human spirit and environment. I intend to make use of *mimesis* and recall some of the greatest examples of literature, to formulate a hypothesis on the value of truths:

Truths will be defined as an agreement on uncertainties, the consensus over matters of empirical and social nature such as mathematics, physics or economics. As illustrated by [Dennis Lindley](http://en.wikipedia.org/wiki/Dennis_Lindley)[[4]](#footnote-4), *‘individuals tend to know things to be true and false but the extent of this truth and falsity would always remain unknown’*.

 Leading individuals to a permanent state of stress, uncertainty becomes a risk for the social community. Problems could not be presumed to be solvable as any kind of solution would be perceived as uncertain. The struggle for solutions would develop into a state of insecurity and conflict where no individual could trust the answers given by any other member of the community.

To prevent *a ‘*war of all against all’[[5]](#footnote-5) that would cause anxiety and permanent conflict, it will become an essential duty for the social community to diminish uncertainty by imposing truths. With those, individuals can be reassured about the certainty of their knowledge and use truths as a resolution tool for any dispute that might occur within the social space.

For the purpose of social peace, truths will therefore be every outcome of the process through which uncertainty is transformed into an agreed form of knowledge. “Gravity”, “Death” and “God” will all be considered truths as they represent a form of agreement over different domains of the human and social life. It is not the intention of this essay to examine each of the truths separately but rather, to analyse them all together in order to formulate a hypothesis for all empirical and social matters.

The different types of truths will be analysed in the following pages as part of the review of various agreed uncertainties which are introduced as *fallacies.*

1. The fallacy of having tea at 3pm

‘“Have you learnt the secret from the river, that there is no such thing as time?” A bright smile spread over Vasudeva’s face. “Yes, Siddartha, is this what you mean? That the river is everywhere at the same time, at the source and at the mouth, at the waterfall, at the ferry, at the current, in the ocean and in the mountains, everywhere and that the present only exists for it, not the shadow of the past nor the shadow of the future?”*’ Siddharta.* Herman Hesse.

In Siddharta, Herman Hesse challenges the agreement on one of the fundamental uncertainties of our world: Time. Does time actually exist? Could past and future coexist with our present? Life for Hesse is not a sequence of experiences but a coexistence of those which take place all together. Could this idea of life be compatible with our social community?

For Hesse, it is the human mind, due to its limited capability to understand and visualise the coexistence of different experiences, which flows from one moment to the other adhering conscience of reality and time. It is therefore consciousness and not time that determines our idea of present and reality and defines what moment in life we believe ourselves to be in. If time is not to exist and our life is already happening all together, what would this mean?

The truth of time (Tt) represents two concepts of truth which would need to be analysed separately:

The *ad intra truth*, means analysing the Tt in the framework of consciousness we are in. For instance, it could be a Tt that it is now the 10th of August. Would Hesse’s denial of the idea of time alter the way in which individuals set the time (2012) and their biological age (43) in that specific framework of consciousness and reality they are in?

For [Parmenides](http://en.wikipedia.org/wiki/Parmenides) as for Hesse, time would be no more than an illusion as it is an integrating element of the *doxa[[6]](#footnote-6)*. But, even if we assumed the Tt as a sensory perception, *ad intra* truth would still persist due to its value as an organisational instrument of the social community as all agreed uncertainties such as culture, space, language, history, mathematics would need to be referenced to a certain point in time.

Time serves as a dimension where truths can be chronologically organised into past, present and future allowing the self-organization of the social community. Order can then arise from components (agreed uncertainties) positioned in an initially disordered system[[7]](#footnote-7). As in the physical and chemical processes such as crystallization, where order is achieved through convection, in a social community, *ad intra* time allows coordination among truths.

If truths were all to coexist in time, social life could no longer take place as there would be no common references for individuals to use in their interaction with other members of the community. If it wasn’t agreed that this year is 2012, how could individuals accomplish the expectations set by the social community, for instance, to deliver annual accounts or to have medical checks on an annual basis?

Self organization, granted through the *ad intr*a truths, is therefore an indispensable function for the survival of the community as without it the coordination of individuals and uncertainties in the social community would be impossible.

The *ad extra* truth of time is set outside our frame of consciousness, it is the epistemological concept of Tt, which for Hesse, is defined as the coexistence of experiences. Could the social community survive with Hesse’s denial of chronological time?

If the truth of time, in its *ad extra* sense does not exist, no real choices would be made in our frame of consciousness as actions and consequences would coexist in time. For instance, if we agree to have tea at 3pm with a friend and then killed him, would we be committing an intentional murder?

We could still be prosecuted for the *actus reus* but we would not be considered liable in a strict moral or legal sense as the indispensable *mens rea* element, which refers to the intent and understanding, as this had not been present. Assuming we haven’t made the choice of meeting our friend at 3pm, as we are killing, having coffee, being born and learning how to use a gun at the same, would imply that criminal offences, would no longer be strict liabilities due to the inexistence of *mens rea*. Making this assumption would not only deny pure criminal liability but would also deny the paradigm of moral and legal responsibility:

It is widely agreed among libertarianists[[8]](#footnote-8)that our actions are based on our free will and that we therefore hold moral responsibility for them. Individuals should emerge from their *self-imposed nonage[[9]](#footnote-9)*that can only be conquered through freedom, to use the individual reasoning in all public and private matters.

The *ad extra* Tt is essential for any social community as without it the correspondence between an action and freewill would be denied, retaining individuals in there *nonage[[10]](#footnote-10)* without responsibility over their actions. Therefore, regardless if time could be proved to be a fallacy, the *ad extra* concept of truth, would survive due to its value granting the effectiveness of the interdependence between actions and responsibilities.

2. The fallacy of innocent young ladies

Can truths be established among feelings, emotions or human relationships? For instance, could a third party (A) determine whether it’s true if another individual feels anger (B)? What is anger? Would anger be precisely the same thing for both the agent and the individual?

Feelings, emotions and relationships, categorised in this essay as subjective perceptions will be considered as truths based on the concept of emotional truth by Ronald de Sousa:

 *‘Truth opens up large vistas on areas of life essential to our existence as social beings, and to our concerns with beauty, morality, love, death, sex, knowledge, desire, coherence, and happiness’.* Any perception that emanates from a person's emotions can be classified as truth as they represent the agreement on a perception reflecting a matter related to the social and individual nature.

Subjective perceptions will be assessed by individuals allocating them with a positive, negative or neutral value, mathematically expressed as (+), (-) or (=).The outcome of the assessment will be a simple truth that will comply with an essential function for the social community, as it will grant individuals with instruction on how to position themselves towards a perception. For instance, in our example, A will assess B’s feelings. The simple truth, in this case a (-) assessment (due to B’s signs of anger) will be established and A will be able to act accordingly, deciding to run away, hide or to defend themself from B.

Therefore, it becomes irrelevant whether both, agent and individual, give anger the same meaning or whether the agent can be absolutely certain it is anger and not revenge that the individual feels, as in essence, a truth has been established for its purpose, this is, to define the rapport between an individual and a perception through an assessment that instructs the individual how to interact with the perception.

‘Her hand, half-hidden in the sand, would creep toward me, its slender brown fingers sleep walking nearer and nearer; then, her opalescent knee would start on a long cautious journey; sometimes a chance rampart built by younger children granted us sufficient concealment to graze each other's salty lips; these incomplete contacts drove our healthy and inexperienced young bodies to such a state of exasperation that not even the cold blue water, under which we still clawed at each other, could bring relief’- *Lolita,* Part One, Ch. 3. [Vladimir Nabokov](http://classiclit.about.com/od/nabokovvladimir/p/Vladimir-Nabokov-Biography.htm),

When more than one individual is involved in a subjective perception, can truth be established? Could the rapport between two individuals, in this case, Lolita and Humbert, ever be classified as a truth?

As with simple truths, the nature of a relationship between two individuals will be considered a subjective perception which will be subject to assessment. In this case, the relationship between Lolita (L) and Humbert (H) will be reviewed, obtaining a complex truth as an outcome as it represents the sum of more than one individual truth:

[ L(subjective perception) + H(subjective perception)]

The outcome of a complex truth can be amplified as it will be the sum of the assessment of L and H:

L [ +/-/=] + H [+/-/=]

Complex truths need to be simplified so that any third party can allocate a moral value to the complex relationship that can be easily shared and understood by the rest of the community. If in Lolita, Mr X saw L and H together, he could assess their relationship and share this information with his neighbours whom would then act in accordance with the assessment and agree to remain indifferent, condemn or defend the rapport between H and L.

Complex truths are to be rationalised into simple truths, through a process that will be defined as Complex Truth Rationalisation (CTR). CTR simplifies the outcome of a subjective perception into three possible outcomes, which can be represented as:

L [ +/-/=] + H [+/-/=] → +/-/=

Why does the assessment of the relationships between individuals and perceptions become valuable? Why are third parties required to undertake assessments that could be done by us?

The theory of choice and scarcity of resources[[11]](#footnote-11)illustrates how resources are limited and insufficient to satisfy all human needs. Therefore, choices need to be made on what goods and services are to be produced.

As there is an asymmetry between time (limited) and subjective perceptions (unlimited) resources are to be rationalised through a cost-income ratio analysis maximizing the effectiveness of the Subjective Perception Assessment (SPA): Perceptions will be assessed with the lowest amount of time and individuals as possible. In order to rationalise the SPA individuals can take one of the following two actions:

1. Data sharing: Any individual can undertake a SPA, establish a truth and share it with the community, such as Mr X in Lolita. As an outcome of the data sharing process, informal truths will appear, resolving the dispute between limited time and unlimited perceptions by establishing only one outcome (+,-,=) that can be shared with the rest of the community preventing individuals from undertaking the same assessment task.

Individuals perceive informal truths as being subject to refusal, reject and challenge, for instance, in Lolita Mr Y could reject Mr X’s assessment and make his own assessment. This specific nature of informal truths also represents an important value as it reassures individuals as free decision-makers who are able to exercise their free will in the community.

1. To appoint a judge as the only authorised representative to resolve disputes. As part of the separation of powers model, the judiciary power, both as an institution and all their members are to exercise their task with independence from the executive and parliamentary power. This independence legitimates judges as the grantors of truth, as no other individual or institution is supposed to be able to pronounce themselves on a case with the independence, impartiality and neutrality of our judges. The pronouncement made by a judge will become a formal truth and will imply a review of the SPA (Subjective Perception Assessment) unveiling the complex nature of the relationship before the CTR (complex truth rationalisation) took place, this could be mathematically expressed as:

+/-/= → L [ +/-/=] + H [+/-/=]

Formal truths represent the highest degree of perfection of an agreed uncertainty and play a vital role in society as they tend to be the final agreement over a certain subjective perception. A judge, for the purpose of truths, would need to be understood not only as an element of the judiciary power but also as the impartial, best informed and independent individual who might represent the ideal judge in order areas, for instance, a board of doctors or experts of a certain domain.

As informal truths grant the perception of freedom in a community, formal truths grant final legitimate consensus on a perception. A truth that won’t be challenged and won’t be perceived as an act of oppression as it has gained its legitimacy through the impartiality and fairness *ad causam* (how the truth was analysed) and *ad procesum* (how the decision making process of the judge took place). Therefore, individuals can finally be reassured that formal truths can be followed as they won’t be challenged or felt as an act of oppression.

3. The fallacy of falling apples

Among the authorities it is generally agreed that the Earth is at rest in the middle of the universe, and they regard it as inconceivable and even ridiculous to hold the opposite opinion. However, if we consider it more closely the question will be seen to be still unsettled, and so decidedly not to be despised. For every apparent change in respect of position is due to motion of the object observed, or of the observer, or indeed to an unequal change of both- Nicolaus Copernicus[[12]](#footnote-12)

Could we assume that apples will fly? That rain will burn? Or that the sun will be green? Our knowledge is based on the Scientific Model and therefore paradigms will be considered as true unless they are proven to be wrong. Truths about knowledge are regarded as a constant evolving truth, based on Isaac Newton’s rules for Study of Natural Philosophy: ‘*In experimental philosophy, propositions gathered from phenomena by induction should be considered exactly or very nearly true not withstanding any contrary hypothesis, until yet other phenomena make such propositions either more exact or liable to exceptions’[[13]](#footnote-13).*

An element proven through scientific experimentation will be a truth that will tend towards its own development and perfection through the new theories that will complement the findings of the existing one. Truths therefore evolve and progress seeking the highest degree of precision of the fact (falling apple) that was under review through the theory (Gravity). Once that gravity (G) is considered as a proven truth, a hierarchy of knowledge will be built based on (G), new truths will emerge such as speed (S), the price per apple (P), the cost-income ratio of apples per surface (CI)…The compound of truths [(S) + (P) + (CI)] will be maintained on the basis that the fundamental truth (G) will remain constant in time.

What if a fundamental truth is challenged? What if apples could fly? It is not the purpose of this essay to determine whether all the fundamental truths of our knowledge will remain constant in time but it is convenient to express that it would be irrelevant whether fundamental truths are all proven to be temporary; this is, limited to a certain period of time, individuals and the social community would still need to perceive them as permanent due to the importance of predictability of fundamental and compound truths, as individuals need to predict how they will need to interact in their community at present and in future.

A farmer could use the compound truth for apples [(S)+ (P) +(CI)] and decide whether they will need another farm or to plant more trees. But would the farmer be permanently in his farm even if apples do start to fly? Progress and scientific revolutions are not incompatible with the idea of the permanent truths, as it is mostly irrelevant whether gravity (G) will remain as an ongoing fundamental truth. If (G) is transformed into (nonG) then individuals would adapt their behaviour accordingly and take (nonG) as a constant truth.

On top of (nonG) another set of compound truths would be built and (non G) would serve equally as (G) as both would be regarded as a permanent truth that would enable individuals to predict how the environment and the social interaction would work.

4. The fallacy of broken families

‘All happy families are alike; each unhappy family is unhappy in its own way’. *Anna Karenina*. Leo Tolstoi

The opening lines of *Anna Karenina* make a universal statement on happiness and family. For Tolstoi, all individuals share the same perception of the ideal of happiness but, because of our need to remain different and unique, individuals accept unhappiness. Through his novel, Tolstoi sets the dilemma between domestic satisfaction and individualism and it is Anna Karenina who represents the triumph of individualism by preferring love and passion to comfort.

What has been the impact of this statement? Why did it matter that Anna decides to overcome the Russian society and husband for love? Did Tolstoi know that women after reading his novel would become more self-conscious and free enough to act regardless of the society’s mandates? How much did Tolstoi actually know about his novel?

All truths have a purpose and this purpose differs from its value: While the value represents the unique functionality of a truth on an agreed uncertainty, the purpose is their ultimate goal of a truth that can be achieved though its value. For instance, Tolstoi’s knowledge of his novel is a simple truth as it determines a (+) relationship between agent (Tolstoi) and object (novel, Anna Karenina). The value of this truth is the rapport between Tolstoi and the novel has been assessed and can be shared with the community. The purpose of the truth can be multiple: Tolstoi’s relationship with his book could serve as an example on the relationship between artists and their work of art, between an individual and a beloved item.

The purpose of the truth represents the long term intention or reaction of building a truth. In a fundamental truth as ‘1+1=2’ there are multiple purposes such as to develop a way to trade, a tool for construction or for education but there are also multiple reactions, such as developing algebra or quantum physics. There are two ways in which purposes are determined and will depend upon the intention and knowledge of the actor when building a truth:

Intentional truths are consciously used by an actor or a group of actors in order to achieve certain goals in the social community they are in. For instance, the term *social class* has been considered as a social truth[[14]](#footnote-14) from the XIX century onwards. But is there any evidence of a so called *class*? Do the integrating elements of a social class feel as such? Philosophers, economists, lawyers used this term at different points in time intentionally in order to achieve a social change. This can be seen in the French Revolution where the ideal of the *bourgeoisie* was born so that this social group could develop and progress economically and politically against the monarchy. It was also used by communism to identify the working class and gain class-consciousness against the bourgeois.

What is the value of the intentional truths? Why do *social classes* and others such as *Jews* in the Nazi Regime or *the king* in the absolutist regime appear?

Intentional truths grant individuals with the power to influence their community. Lenin through his words ‘*Freedom in capitalist society always remains about the same as it was in ancient Greek republic*’ *[[15]](#footnote-15)*

intended to promote a social and economic change regardless of whether communism would be closer to truth than capitalism.

Intentional truths allow individuals to feel engaged in the progress of their community being an active actor of the history of the community. Individuals struggle for recognition[[16]](#footnote-16) which can only be achieved through their actions in the social community. This notion, which evolves from Plato’s *hommo politicus[[17]](#footnote-17)* and in modern times is wider and far more complex now includes a wide array of activities such as being the owner of a company, a University teacher or a Doctor. But individuals seek for that recognition in society that would only be possible if truths have an intentional purpose.

Unintentional truths are all of those that don’t serve specifically to the human self recognition but that do influence the social community and how the individuals sense reality. Did Anna Karenina have exceeded the cultural and social impact that Tolstoi would have expected? Why would this be of any relevance for the purpose of truth?

Unintentional truths accomplish an essential social function as they counterbalance the seeking of recognition with the uncertainty of success. Uncertainty encourages individuals to abandon their personal ambitions in order to be part of a wider project and community, which in exchange, offers them comfort and security. As ambition does not imply success, individuals undertake a rational assessment of the probability of fulfilling their ambitions versus the benefits of comfort of the community.

For the survival of a social community, most individuals need to be discouraged from seeking their ambitions so that the majority undertake the projects designed by the minority. In Walden**[[18]](#footnote-18)** the value of uncertainty is expressed as follows:

‘As for the Pyramids, there is nothing to wonder at in them so much as the fact that so many men could be found degraded enough to spend their lives constructing a tomb for some ambitious booby, whom it would have been wiser and manlier to have drowned in the Nile, and then given his body to the dogs.’ *Walden, and On the Duty of Civil Disobedience,* Henry David Thoreau.

No pyramids would have been built if every man was to seek his own self recognition instead of accepting his belonging to a wider project. Without this trade off between individualism and comfort, the maintenance and the progress of the community would not be possible as any truth, such as *social class*, requires of a mass driven by the mandates outlined by the leading force.

The value of truths

‘I admit that twice two makes four is an excellent thing, but if we are to give everything its due, twice two makes five is sometimes a very charming thing too. Fydoor Dostoevsky, *Notes from the underground*, chapter 9.

Could 2+2 ever be 5? Truths (T), the different types of truth (TT) and their correlative value (V) have been identified through the previous sections of this essay and will now be subject of assessment in order to understand the way in which T, TT and V interact. The framework in which the interaction takes place will be defined as the Taxonomy of Truth and can be graphically represented as:



Each Value has a correlative Type of Truth. For example, the value of legitimate consensus relates to the formaltype of truth.

The correspondence between TT and V, expressed as TTV, guarantees the existence of both elements which will remain constant and will allow the Taxonomy to become not only the framework of their interaction but also a superstructure that will deliver the 9 foundations to the social community and the individuals.

The 9 foundations are the set of 9 values (organisational, responsibility, relationship individual-object, relationship individual-individual, legitimate consensus, freedom, predictability, recognition and discouragement) which outline the *corpus* of any community by:

1. Establishing a perception of time and space where all other agreed uncertainties can be set.
2. Outlining how responsibility will be allocated to each member of the community for the actions undertaken.
3. Predicting how all agreed uncertainties will behave and how their behaviour will remain constant. Individuals will then be able to organise their lives accordingly.

And determine the *animus* of the community by setting a balance between 3 opposing forces:

1. The seeking of individual recognition versus discouragement and failure.
2. The seeking of freedom versus the seeking of a legitimate truth.
3. The relationship between objects and individuals versus relationship between individuals.

The 9 foundations contribute to the survival of the social community as they pre-define the *corpus* and *animus*, determining the set of elements required for their long term maintenance. Therefore, a new relationship of mutual benefit is established between the Taxonomy and the Social Community (Sc) that can be expressed as Tx Sc as the Sc will only be maintained if the 9 foundations are delivered and the Tx will only exist if it can effectively deliver them. The new relationship built between Sc, Tx and all the integrating elements of the Tx can be represented as:



The flow of mutual interest between Tx and Sc will impact the relationship of the Tx with its integrating elements (TT, T and V) as the value of those will be based on their relevance for the delivery of the 9 foundations. Therefore, V, T and TT will now need to be analysed separately assessing their individual rapport with the 9 foundations:

Value and the 9 Foundations

A relationship of interdependence, expressed as TxV, exists between the Taxonomy and Values. V becomes an essential supporting element of Tx as the contents of V (organisational, responsibility, relationship individual-object, relationship individual-individual, legitimate consensus, freedom, predictability, recognition and discouragement) are replicated in the 9 foundations.

Without V there would be no contents to deliver as foundations to the social community and therefore, the relationship between Sc and Tx would no longer be maintained. For V, the Tx is also indispensable as they grant the existence of the contents of V outside the boundaries of the Tx allowing the contents of V to reach the social community.

Types of Truth and the 9 Foundations

The rapport between the Types of Truth and the 9 foundations is indirect, as it only takes place through V. Each V has a correlative TT, for instance a permanent type of truth is correlative to the predictable value. Truths are all categorised into a TT (gravity, quantum physics, quantum mechanics, would all fall under the permanent type of truth) which would also imply allocating a specific value to all those truths (in this case they would all be given the predictable value).

Types of Truth are correlative to each Value, which would mean that the TT is the second essential supporting element of the Taxonomy as no Value could exist without an underlying Type of Truth. Along with the interdependence between Tx and V, (Tx V) a new premise is set between the Type of Truth (TT) and Value (V) which is expressed as TT V. The conjunction of both premises Tx V and V TT would imply that now TX TT and therefore, TT becomes a supporting element of TX.

Truths and the 9 Foundations

The relationship between Truths and the 9 foundations is inexistent as the 9 foundations will be delivered as long as Tx V and V TT are maintained. But even if the rapport between T and the 9 foundations is not considered to exist, T it will still be regarded as an integrating element of the Taxonomy, as an agreement on an uncertainty that takes place within the framework of the Tx.

The irrelevance of Truth

Truth has been defined as a taxonomically irrelevant element of the Tx, with no other value than its presence within the Tx. What does this actually mean? Could we get ‘2+2’ to actually make ‘5’?

We could wake up tomorrow morning and assume that ‘2+2’ makes 5 as by taking ‘5’ as the new truth, we wouldn’t be altering in any way the premises Tx V and V TT:

The TT would still be a permanent truth that would make us all sense ‘2+2=5’ as the new fact on top of which a new compound of truths would be built, existing truths based on the old truth ‘2+2=4’ would be reviewed, and a new truth for speed, heat, gravity would emerge, consistent with ‘2+2=5’. Twice two makes five would still deliver the predictable value to the social community through which individuals would be able to organise and govern themselves.

Other truths such as chronological time could also be altered as individuals and the social community will use the value of the a*d intra type of* truth of time as a reference for all other agreed uncertainties and the *ad extra* value to assign responsibility to each individual for the actions undertaken.

All truths within every category of TT and V become interchangeable elements so that any truth (A) could be replaced by another one (B). For instance, in a formal type of truth a truth (Roe vs Wade)[[19]](#footnote-19) could be replaced by another one (Doe vs Bolton)[[20]](#footnote-20) without altering the relationship between the legitimate consensus and the formal truths.

Their interchangeable nature is due to their absence in the process of delivery of the 9 foundations, where only the premises Tx V and V TT are required. Therefore, Truths do hold value as an integrating element of the Taxonomy, but the nature and extent of their value becomes irrelevant as T has no influence on the maintenance of Tx as a superstructure and consequently, have no relevance in the long term maintenance and governance of the social community.

It will only be the Type of Truth and the Values of Truth that will accomplish, through the superstructure of the Taxonomy, with the essential function of granting the social community with instruments to govern themselves and prevent the society from falling into a permanent state of war and stress.

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1. Social Community: Community as a group of people living in the same place or having a particular characteristic in common (Oxford Dictionary). In this case, that will share a set of legal, ethical, mathematical, physical values that have been agreed among the community. [↑](#footnote-ref-1)
2. Imitation from the Greek word *mimesis.* An idea that governed the creation of works of art, in particular, with correspondence to the physical world understood as a model for [beauty](http://en.wikipedia.org/wiki/Beauty), [truth](http://en.wikipedia.org/wiki/Truth) and the good. Plato *The Republic,* 596-599. [↑](#footnote-ref-2)
3. .Aristotle, *The Poetics of Aristotle, Chapter I* Translation by S.H Butcher. [↑](#footnote-ref-3)
4. [Dennis Lindley](http://en.wikipedia.org/wiki/Dennis_Lindley) *Understanding Uncertainty*, 2006. [↑](#footnote-ref-4)
5. Hobbes, *Leviathan.* [↑](#footnote-ref-5)
6. *Doxa* ‘opposition to knowledge, which exemplifies the classical opposition of [error](http://en.wikipedia.org/wiki/Error) to [truth](http://en.wikipedia.org/wiki/Truth)’ Andreea Deciu Ritivoi, Paul Ricoeur*, Tradition and Innovation in Rhetorical Theor*y, SUNY Press. [↑](#footnote-ref-6)
7. Fuchs*, Concepts of social self-organisation*. [↑](#footnote-ref-7)
8. Libertarianism is a metaphysical or philosophical sense was first used by late [Enlightenment](http://en.wikipedia.org/wiki/Age_of_Enlightenment) [free-thinkers](http://en.wikipedia.org/wiki/Freethought) to refer to those who believed in [free will](http://en.wikipedia.org/wiki/Free_will), as opposed to [determinism](http://en.wikipedia.org/wiki/Determinism). The first recorded use was in 1789 by [William Belsham](http://en.wikipedia.org/wiki/William_Belsham) in a discussion of free will and in opposition to "necessitarian" (or determinist) views. [↑](#footnote-ref-8)
9. Inmanu*eal Kan*t, *What is enlightment.*  [↑](#footnote-ref-9)
10. Inmanueal Kant, *What is enlightment.*  [↑](#footnote-ref-10)
11. Edmund Burke*, Thoughts and Details on Scarcity*. [↑](#footnote-ref-11)
12. Copernicus*,On the Revolutions of the Heavenly Spheres (1543), Book One. Chapter V.* trans. A. M. *Duncan (1976).*  [↑](#footnote-ref-12)
13. Newton, *Rule IV of his Rules for the Study of Natural Philosophy*. [↑](#footnote-ref-13)
14. Social truths reflect group customs and values and define what a distinct group perceives to be true. For example, for group A it can be true that B is an enemy and thus a threat. Andrew Bernadin, *The evolving mind*, 2005. [↑](#footnote-ref-14)
15. [Vladimir Lenin](http://www.brainyquote.com/quotes/quotes/v/vladimirle153243.html), F*reedom for slave owners*. [↑](#footnote-ref-15)
16. ‘Self-consciousness is thus the awareness of another’s awareness of oneself. To put it another way, one becomes aware of oneself by seeing oneself through the eyes of another’. Hegel, *Phenomenology of Spirit*, Chapter 4, Self-consciousness. [↑](#footnote-ref-16)
17. Aristotle. [↑](#footnote-ref-17)
18. #  Henry David Thoreau, *Walden, and On the Duty of Civil Disobedience*.

 [↑](#footnote-ref-18)
19. Roe v. Wade, (1973), is a landmark decision by the United States
Supreme Court on the issue of abortion. [↑](#footnote-ref-19)
20. Doe v. ***Bolton***, (1973), was a decision of the [United States Supreme Court](http://en.wikipedia.org/wiki/Supreme_Court_of_the_United_States) overturning the [abortion](http://en.wikipedia.org/wiki/Abortion) law of [Georgia](http://en.wikipedia.org/wiki/Georgia_%28U.S._state%29). [↑](#footnote-ref-20)