

# Arbitrary Claim Difficulties. One Example

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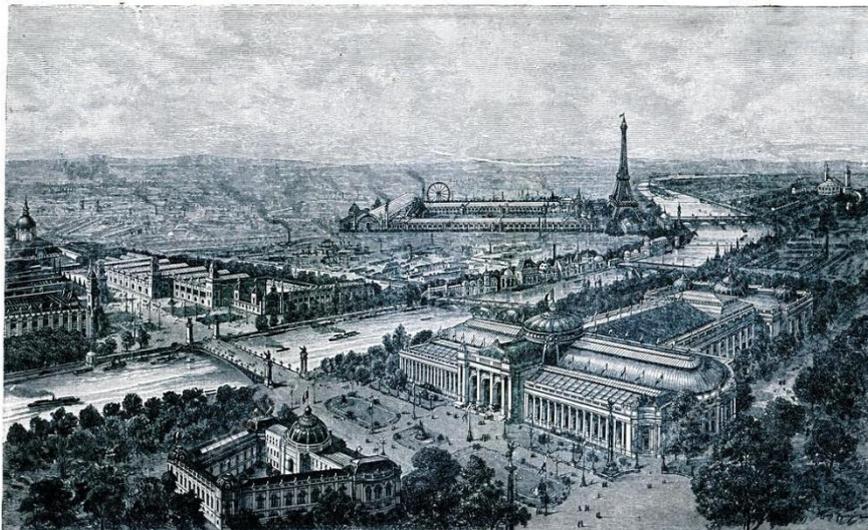
Olga Pombo

Center for Philosophy of Science of Lisbon University  
Faculty of Sciences, Lisbon University  
[opombo@fc.ul.pt](mailto:opombo@fc.ul.pt)

**Abstract** - Arbitrary claim has serious implications in diverse domains of human activity. I propose to examine the question on basis of an example in which this issue is crucial. The example concerns Thomas Hobbes defence of the arbitrariness of language, namely the arguments and counter-arguments he was obliged to put forward against those who, in his time, maintained - and still today asseverate - in favor of the opposite thesis. In 4 last notes, I signalize the contemporary relevance of that controversy.

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## & 1. The Question



In his famous conference at the International Congress of Mathematics, Paris 1900, the great German mathematician David Hilbert (1862-1943) stressed with great vigor that

mathematics advances by solving problems. The set of 23 great unsolved mathematical problems which he then presented were a proof of this thesis and of his unbreakable confidence in the progress of mathematics. Mathematical problems may be very hard, they may need the contribution of several mathematicians, they can take centuries to be solved, but - Hilbert trusts - every problem is capable of rational solution. This is the meaning of his famous *dictum*: “The conviction of the solvability of every mathematical problem is a powerful incentive to the worker. We hear within us the perpetual call: there is a problem. Seek its solution. You can find it by pure reason, for in mathematics there is no *ignorabimus*” (Hilbert, 1902, p. 445 ).

Also Philosophy deals with arduous problems and, like mathematicians, philosophers also aim at solving their problems. They analyse them, they try to clarify them, they discuss previous solutions, they put forward new possibilities of analysis, they propose new concepts and even new theories aiming at their resolution. But they never reach the universal acceptance of the solutions they advance. Philosophy is thus condemned to deal, not with unsolved problems but with unsolvable problems. Philosophy faces, not exactly problems but questions, infinite unsolvable inquiries which, in their root, involve opposing arguments of much general and abstract claims, both equally justified with respect to each question<sup>1</sup>.

These oppositions (antinomies), which Kant considered the destiny of human reason, are displayed inside a complex problematic space whose limits are occupied by the two extreme terms of the antinomy. The adoption of one of the terms of the antinomy raises great difficulties and has always serious, systematic implications. More the thesis is extreme, more it is difficult to demonstrate and more it enrolls weighty consequences. This is exactly the case of the arbitrary claim

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<sup>1</sup> See, for instance, the four antinomies presented by Kant in his master work of 1781, *Critique of Pure Reason* (1<sup>st</sup>- The world has a beginning in time, and is also limited as regards space / The world has no beginning, and no limits in space; it is infinite as regards both time and space; 2<sup>nd</sup>- Every composite substance in the world is made up of simple parts, and nothing anywhere exists save the simple or what is composed of the simple / No composite thing in the world is made up of simple parts, and there nowhere exists in the world anything simple; 3<sup>rd</sup>- To explain the appearances it is necessary to assume that, behind causality, there is also spontaneity (freedom) / There is no spontaneity; everything in the world takes place solely in accordance with laws of nature; 4<sup>th</sup>- There belongs to the world, either as its part or as its cause, a being that is absolutely necessary / An absolutely necessary being nowhere exists in the world, nor does it exist outside the world as its cause).

which, opposed to the naturalness claim, enrolls heavy difficulties in whatever area it may be applied.

With respect to Mathematics, the controversy arbitrary *versus* natural concerns the nature of axioms. It is an old question clearly established, at least since the XVII century, namely between Descartes, for whom the fundamental principles of mathematics are the result of God's will and, as such, we could have several mathematics, and Leibniz, for whom the fundamental principles of mathematics are a product of God's reason, thus, our mathematics is God's mathematics.

Still, after the emergence of non-Euclidean geometries, the question about the nature of axioms gained a crucial meaning. Against the well established belief on the evident, logical nature of axioms, Hilbert stressed the arbitrary nature of axioms and, consequently, the need of a fully formalized methodology for the rigorous practice of mathematics. Axioms must be established independently of all intuition which connects us to the natural world. Their truth is internal to the system. Logics is the fundamental internal rule of the system which ought to be a fully logical deductive structure, but logics cannot provide the grounding of the system. The system is grounded in the arbitrary choice upon a sufficient, complete, non-contradictory, consistent set of axioms, that is, a set of conventions whose enumeration and complete explicitness is possible and necessary. As Hilbert claimed in a celebrated letter to Frege of the 29<sup>th</sup> December, 1890: "You write: from the truth of the axioms it follows that they do not contradict one another... I have been saying the reverse: if the arbitrary given axioms do not contradict one another with all their consequences, then they are true and the things defined by them exist" (Frege, 1980, pp. 39-40). Frege's answer on the 6<sup>th</sup> January 1999, is not less notable. In Frege's words, Hilbert's claim was like "doing theology with an axiom that says God exists: Axiom 3, there is at least one God" (Frege, 1980, p. 46).

Now, in addition to Mathematics, arbitrary claim crosses many other territories, such as economics, sociology, anthropology, politics, law, morality, language, metaphysics, ontology, logics. What is common to all arbitrary claim put forward in all areas is the defense of the possibility of a choice or agreement based, not in the nature of things, nor in any rational, cognitive or psychological reasons, but in a free, non-motivated, undetermined stipulation of a statement, be it a social norm, a

moral law, a political regime, the meaning of the words we use, or a sufficient, complete, non-contradictory, consistent set of axioms.

The opposition is thus established between what is given by nature and what is arbitrarily chosen (as an individual act of free will) or conventioned (agreed by a more or less large group of men). According to Aristotle, the best two examples of arbitrary conventional entities are money: “it exists by law and not by nature and it is in our power to change it and make it useless” (Aristotle, *Nicomachean Ethics* V.5.II33a), and language: “a name is a spoken sound significant by convention...because no name is a name naturally but only when it has become a symbol” (Aristotle, *De Interpretatione* 16a.20–28). Likewise, social norms are in general considered as being arbitrary. Greeting these or that way, eating these and not those foods, driving right or left, etc, seem indeed to have been established by some conventional act of agreement. But, is it so? Is there in fact a kind of implicit agreement or explicit convention (contract) underlying social norms? In that case, how were those agreements established? Was it by consensus? Otherwise, there must have been an author of that decision. Who? Why? How to explain that everyone have accepted the choice made by one? Are not there any “non-arbitrary” (natural) social norms indeed ?

The same may be questioned - with much more crucial consequences - in what concerns moral norms? Are there some “natural” (universal, necessary) moral principles, or are our guiding norms for living together all conventional, arbitrary? Are there any universal, necessary, divine, explicit or tacit, moral laws or are they nothing but uses and customs? May these few questions illustrate the serious difficulties put forward by all apparently simple answers.

And, what about human languages? Are human languages conventional entities or are they natural, living beings each one adapted to the specific conditions of the people who speaks it? Before Aristotle (who, as seen above, defended a conventionalist thesis), Plato clearly formulated the opposition between natural *versus* conventional nature of language. He was fully aware of the serious consequences and implications of both thesis and, may be because of that, he did not clearly choose one of the two sides. In his celebrated dialogue *Cratylus*, Plato puts face to face the two terms of the opposition. One one

side, Hermogenes defends a broadly conventionalist view of linguistic meaning. As he says: “No one is able to persuade me that the correctness of names is determined by anything besides convention. (...) No name belongs to a particular thing by nature, but only because of the rules and usages of those who establish the usage and call it by that name” (Plato, *Cratylus*, 384d). On the other side, Cratylus advocates an anti-conventionalist thesis: “A thing’s name isn’t whatever people agree to call it — some bit of their native language that applies to it — but there is a natural correctness of names, which is the same for everyone, Greek or foreigner” (Plato, *Cratylus*, 383a).

These quotations of Plato initiated a tremendous opposition which has occupied for centuries some of the most deep and clever minds of our culture. The discussion was extended all along the Middle Ages and Renaissance giving raise to acute polemics around the so called Adamic language and *Natursprache* tradition. Later, in the XVII, XVIII and XIX centuries it was yet the same opposition that was rooting a series of passionate discussions, theoretical projects and practical attempts to create a universal language which should be, for some, fully conventional, for others, made upon natural languages<sup>2</sup>.

Apparently, Saussure (1857-1913), when giving birth to the new scientific discipline of Linguistics, closed the question by declaring, in his celebrated *Cours de Linguistique Generale* (1916), that the relation between the signifier and the signified was "arbitrary", that is, that there is no logical or intrinsic relationship between signifier (sounds or written signs) and the signified (concept). However, that declaration - extreme as it was - did not finished nor blocked the question which continued to irrupting here and there. And, what we witness nowadays is again the formulation of opposite theories, and even scientific research programs defending either a conventionalist or an anti-conventionalist position. We will return later to this topic.

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<sup>2</sup> For further developments, both on adamic language and *Natursprache* tradition as well as on the diverse projects for the creation of a universal language put forward since the XVI century on, see Pombo (1987).

## &2. The Example

Let us now enter the example which - I believe - is very much eloquent and instructive of the serious, risky, even dangerous consequences of the arbitrary claim.



The example concerns one of the most influential philosophers of modernity: Thomas Hobbes (1588-1679). He let us a very subtle theory of knowledge, of language, of the calculatory nature of human reason and one of the most powerful political philosophy ever proposed. He also contributed to diverse other fields, including history, jurisprudence, theology, ethics, physics, and geometry. He was in contact with all the great spirits of his time, both in philosophy (Descartes, Leibniz)<sup>3</sup> and in science (Cavendish, Roberval)<sup>4</sup>.

In his master work - *Leviathan* (1651) - Hobbes arbitrary claim has very clear political implications. He tries to demonstrate the necessity of avoiding the natural state of mankind by a “social contract”, a conventional agreement which establishes an artificial strong authority. Natural state is without government. Each person would have the right and license to do anything in the world. As Hobbes states “[In such condition, there is no place for industry; because the fruit thereof is](#)

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<sup>3</sup> Even though he was a direct opponent of Hobbes necessitarianism, Leibniz was a great admirer of Hobbes, not only in what concerns law and politics, but also logics, metaphysics and theory of language. In what concerns Descartes, just remember that Hobbes is the authors of the “Third Objections” to the *Meditationes de Prima Philosophia* de 1641.

<sup>4</sup> Hobbes had a close relationship with the Cavendish family having been tutor, secretary and travel companion of some of its members. As to Roberval who Hobbes met him in Paris, the great French mathematician encouraged Hobbes mathematical studies.

uncertain: and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving, and removing, such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and which is worst of all, continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short” (Hobbes, *Leviathan*, XIII)

So, according to Hobbes, to avoid the brutal state of nature, people submit to a social contract (an explicit historical act of agreement), that is, a social convention by which they enter civil society. In civil society, all individuals, now citizens, concede some of his natural rights to a sovereign authority who afterwards becomes responsible for their protection. But, ironically, because the power of the sovereign derives from the citizens deliberated resignation of their own sovereign power, the citizens are afterwards forced not to resist any power exercised by the authority as they are, in the last instance, the very authors of all decisions made by the sovereign. That is why Hobbes compares the social state thus constituted to a monster (the artificial men “Leviathan”) created under the pressure of human needs conventionally overcome in the social contract.



Now, Hobbes theory of language was developed in a century of a splendid sensibility and intense curiosity on the intimate nature of human language. The main question concerns the role language performs in the process of knowledge: Does language help to promote knowledge? Or, on the contrary, does it prevent its progress? Is language a disturbing factor or a

necessary element for the acquisition of knowledge? A mere *means* of communicating knowledge or an essential *medium* of constituting knowledge?

Two great positions can be signalled. A critical position which attributes to language mere communicative functions and moreover emphasises the insufficiencies and disturbing effects language introduces on communication: Bacon, Locke, Descartes, Arnauld, Melabranche and, in general, all those who look for the construction of new artificial languages – from Lodwick to Dalgano, from Sethward to Wilkins. And a positive position which, although recognising some limits and imperfection of human languages, nevertheless stresses its constitutive character. From my point of view, just two names in modern times: Thomas Hobbes and, some years, later Leibniz.<sup>5</sup>

Hobbes' situation is quite singular. He is the first to point out the constitutive character of language in the process of knowledge. And he does that with such a radicality that he quite deserves to be considered the indisputable predecessor of the computational linguistic theory of cognition – “[reasoning is nothing but reckoning](#)” (Hobbes, *Leviathan*, p. 99). He is the only one to do it in England where, in the line of Bacon, the critical position is prevailing. Further, he is the one who more clearly and explicitly makes of language the articulation point of a general theory of mind (a theory of human nature, as he says) and a political theory. That is, he is the one who more clearly and explicitly extracts the political consequences of a certain language conception. As Hobbes writes in *Leviathan*, without language “[there had been, amongst men, neither common-wealth, nor society, not contact, nor peace, no more than amongst lions, bears and wolves.](#)” (Hobbes, *Leviathan*, p. 100)

In fact, for Hobbes, language has 3 uses. The first is a private use. At this level, language makes us able to “[transfer our mental discourse into verbal discourse](#)” (Hobbes, *Leviathan*, p. 100), that is, language stabilises the imagetic fluid (mental discourse) by establishing points of reference and orientation around which representations become fixed and isolated. The second is a communicative use. Language is now the exteriorization, the exhibition, the communication of thoughts of one person to other persons by a system of signs (cf. Hobbes,

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<sup>5</sup> For further developments, see Pombo (2010).

*Leviathan*, p. 100). But there is a third conceptual use according to which names are not only mnemonic marks of private use, not only exterior signs of communicative value, but also a signification – a bow, a link between a sound and the conception which this sound allows us to remember and to communicate. What interests me to underline here is that it is at this third level that Hobbes introduces the arbitrariness of language. Names are defined by Hobbes as voices of men, “arbitrarily imposed as a mark to bring to his mind some conception on which it is imposed (first private use) and as a sign to communicate to others those conceptions (second communicative use)” (Hobbes, *Human Nature*, V, & 2).

In fact, in the first two uses (mnemonic and communicative) language is submitted to universal mechanical causality. As a producer of sounds, sonorities of private and public use, man does not escape the involving determinism. There are bodily, passionate, phonic, articulatory mechanics (diverse motions of the tongue, palate, lips and other organs of the speech) which explain the production of those sounds (cf. Hobbes, *Leviathan*, p. 100). On the contrary, in conceptual use, language escapes that mechanical determinism since the relationship between the sound and the conception it designates is arbitrary.

Arbitrariness is thus for Hobbes a critical, crucial point in which a very important, decisive transposition is made. It is by the establishment of an arbitrary language that men overcome natural determinism, rise above all other animals and initiate the construction of the artificial mechanisms which are at the basis of political body. Only individuals able to establish arbitrary links between names (marks and signs) and conceptions, are able to establish the conventional political relationships which characterise that great (dark) artificial man who is *Leviathan*. As he writes, “without language “there had been, amongst men, neither common-wealth, nor society, not contact, nor peace, no more than amongst lions, bears and wolves.” (Hobbes, *Leviathan*, p. 100). Social and political conventionalism are therefore the enlargement, the extension of that other act (yet a more radical achievement) of conventional institution of all meaning which is language. Hobbes is the one who clearly and explicitly makes of language the articulation point of a general theory of mind (a theory of human nature, as he says) and a political theory – that is, he is the one who more clearly and explicitly extracts the political consequences of a certain conventionalist language

conception. Arbitrariness is thus a central thesis, both of Hobbes' philosophy of language, gnosiology and political anthropology.

Now, given the central status Hobbes attributes to the thesis of arbitrariness of language, he needs to find a solid ground for it. And he will try that at two levels: in contextual, polemic terms, and in internal, systematic terms. In contextual terms, Hobbes will have to refute the opposite thesis which defended the non-arbitrary but natural character of human languages. A thesis which postulated the existence of an original, primitive language before Babel. The actual diversity of languages being thus apparent since, in their origin, all languages come from the same primordial root. A thesis which stressed the *natural* character of that divine/adamic language. Either directly received from God, either created by Adam on God's inspiration, the adamic language is thought out as shaped by the intelligence and knowledge of the world it represents, thus its naturality. Hobbes' refutation of this thesis is very sophisticated. I will not analyse it in detail. I would just signalise that it is built on a new and very ingenious exegesis of biblical text. It implies 3 moments. Hobbes begins by refuting the divine origin of language (it was not God but Adam – the first *man* – who instituted names. Then, he emphasises the Babel incident: the adamic language was lost, hopelessly forgotten. It left no traces at all. Finally, he comes to give men, real historical men, men “[forced to disperse themselves into several parts of the world](#)” (Hobbes, *Leviathan*, p. 101), the entire responsibility for the creation of language. It is very interesting to see how ingeniously Hobbes came to repossess man of the invention of language in order to open the possibility to claim for arbitrariness of language.

In internal, systematic terms, Hobbes will desperately look for a way to ground the arbitrariness of language in the interior of his metaphysical system, deeply deterministic as it was. He pursues two main hypotheses: 1) arbitrariness has its origin in an act of individual will, 2) arbitrariness comes from a process of collective choice. But, neither in one case nor in the other, does Hobbes' system offer a solution. As far as the first hypothesis is concerned – arbitrariness comes from an individual act of will – it is true that Hobbes, after denying animals the possibility of a true language, precisely because it is not “[by their will but by necessity of nature](#)” (Hobbes, *De Homine*, X, § 1) that they signify to one another their hope, fear,

joy and the like, he clearly claims that only men's language is constituted by will. But, how is it possible? Hobbes solution is extremely subtle and fragile since, in his system, there is no place for a spontaneous, unconditioned act of will. Will is nothing but “A small beginning of motion within the body of Men” (Hobbes, *Leviathan*, p. 119), “the last appetite or aversion immediately adhering to the action” (Hobbes, *Leviathan*, p. 127), that is, one of these small invisible endeavours (*conatus*) interior to the body of man, and thus, inscribed, even if imperceptibly, in the universal determinism which regulates all natural phenomena.

Let us now briefly consider the second hypothesis – the arbitrariness of language cannot come from a process of collective choice. As Hobbes says, “It is incredible that men once come together to take council to constitute by decree what all words would signify” (Hobbes, *De Homine*, X, § 2). What means that the choice could not proceed by a consensus since a collective agreement would yet suppose a minimal rationality underlying the very agreement, that is, there will be no place for arbitrariness. Hobbes says then: “It is more credible that, at first, there were few names and only of those things that were the most familiar (...) these names having been accepted, handed down from fathers to their sons who also devised others” (Hobbes, *De Homine*, X, § 2). But again, Hobbes system is unable to escape the difficulties which are inherent to the conventionalist position. If arbitrariness of language cannot come from a collective choice, a consensus which (as we saw) would imply the denial of that arbitrariness, then it can only be the outcome of lonely capricious onomaturgus. But in that case, how to explain that each man does not speak a private tongue? How to explain that there were not as many idiolects as speaking creatures?

The only solution is to defend the despotic power of one only onomaturgus who is able of impose by force his chosen nomination. But again, how is it possible? In the case of Hobbes system, the onomaturgus act of imposing by force his favourite nomination would be, not only an indisputable act of will (and thus impossible) but also comes to be a circular argument. In fact, the power of the onomaturgus already supposes the previous institution of the political sphere. How could Hobbes argue that the arbitrariness of language grounds the political when it would be the political to ground the arbitrariness of language?

What I mean is that in both hypotheses explicitly explored by Hobbes for grounding the thesis of arbitrariness of language (an act of individual will or of collective choice), he is conducted to black holes with no way out. And this is not a deficiency of Hobbes's philosophy of language, a consequence of his ancient way of philosophizing. In philosophy, as in mathematics, time does not eliminates his sons. If Euclides still stands, even after non-euclidean geometries, so do Plato, Aristotle, Descartes, Leibniz or Hobbes!!!!

The fact is that a similar aporia is still active today. Many philosophers of language argue that conventional agreement cannot explain linguistic meaning. In such an agreement, what language could have been employed by participants when conducting their deliberations? Bertrand Russell (1872-1970) with his acute, charming spirit, observes: “[w]e can hardly suppose a parliament of hitherto speechless elders meeting together and agreeing to call a cow a cow and a wolf a wolf” (Russell, 1921, p. 190).

How to solve that difficulty? If, for Kant, the antinomy is the destiny of human reason, the example of Hobbes efforts for grounding the thesis of arbitrary nature of language against the opposite thesis of naturalness of human language demonstrates once again that the antinomy has no way out. The problem cannot be solved. We are face to an infinite question. Aporia is the destiny of antinomy.

### **& 3. Four last notes**

1- The opposition natural *versus* conventional origin of human language continued to be active all along the history of Linguistic thought. Leibniz was a defender of the naturalness of human languages, as Herder or Humbolt. Bacon, Descartes and the Port Royale scholars, as well as Saussure much later were convinced conventionalists. And today, in this very moment, I will just signalize three big names: David Lewis (1941-2001) offers a strong theory of linguistic convention, while Noam Chomsky (1928-), by taking Linguistics is a branch of cognitive psychology, claims that language has no special ties to social interaction or convention. Language is rooted in a psychological process through which the speaker assigns meanings to sentences. And Donald Davidson (1917-

2003) argues that convention sheds no light upon human language: “philosophers who make convention a necessary element in language have the matter backwards. The truth is rather that language is a condition for having conventions” (Davidson, 1984, p. 280). An acute, penetrating observation which brings further relevance to the example of Hobbes and puts in difficulty the axiomatic clearness of mathematical conventions which also need (natural) language to be established.

2- It was useless to prohibit all discussions about the motivated / arbitrary nature of human languages stipulated by the *Société Linguistique de Paris* created in 1864. In the second article of its statutes, it is specified: «The Society does not admit any communication concerning either the origin of the language [naturalistic thesis] - or the creation of a universal language [conventional thesis]”. The fact is that the discussion goes on and will continue further on, that is, we face to an unsolved and unsolvable problem.

3- New manuscripts from Saussure have appeared (1996)<sup>6</sup>, in which the father of Linguistics, almost secretly, looks for the motivation of language. In those private notes, probably written in 1891, he was dreaming with a language able to mirror the world and the nature of things while, in the *Cours de Linguistique Générale* (1916), he was stating the opposite thesis. The situation is somehow shocking since his famous book was not signed by Saussure who indeed did not published what he wrote and did not wrote what was posthumously published in his name.<sup>7</sup>

4- In what concerns Mathematics where arbitrary claim was given a relevant role with the outstanding work of Hilbert, maybe, after all, Poincaré (1854-1912) was more prudent (or wise) than Hilbert. The choice of an axiom is free but guided

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<sup>6</sup> We refer to a set of hundreds of manuscripts delivered by his sons to the Library of Geneva in 1955 and 1996. Archived by Robert Godel and catalogued by Rudolph Engler, they include draft papers of conferences, written accounts for classes and private notes concerning theoretical considerations on the delicate questions of his epoch concerning the object of Linguistics, namely the limits of the arbitrary claim.

<sup>7</sup> As well known, the *Cours de Linguistique Générale* (1916) were written by his students Charles Bally and Albert Sechehaye by compiling their own notes and those of 5 other students with notes left by Saussure.

by empirical experience, by intuition<sup>8</sup>. As Poincaré writes in *Science et Hypothèse* of 1903:

Geometric axioms are neither *a priori* synthetic judgements, nor experimental facts. They are conventions: our choice, among all the possible conventions, is guided by experimental facts; but it remains free and is limited only by the need to avoid any contradiction” (Poincaré, 1968: 75, our translation).

Maybe freedom is not an arbitrary power but an ability directed by wisdom.

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<sup>8</sup> On the concept of intuition in Poincaré, cf. Pombo (2012).

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