The concept of human nature in Noam Chomsky[1]
O conceito de natureza humana em Noam Chomsky

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Abstract: One of the constants in Noam Chomsky's philosophical, linguistic and ethical positions is the existence of what he calls "human nature". Following Marx, Darwin and last century's revolutions in the social sciences, human nature has been one of the most contested conceptual holdovers from modern European philosophy. Chomsky's discoveries and models on syntax and language make up one of the frameworks to most critically offset the traditional moral dimension of human nature. Contrary to most traditions prior to his work, language can no longer be restricted to either mind, soul or spirit. Language, as Chomsky has continually upheld and sharply refined, is a physical and biological process. But how his notion of human nature derives from this process is complex, as he seems to disregard philosophy's classic analytic delineation between the descriptive causal realm of human nature and the normative axiological extensions of the same concept. In this paper, we seek to examine the philosophical and ontological implications of Chomsky's claim that human nature derives from the innate dimension of the language faculty. Not only does Chomsky maintain the category of human nature, he also indexes it to the question of freedom. We thereby argue for the coherence of his proposal and show how it operates to weld the perspective of a modal theory of biologically-rooted creativity to innate conditions specific to his theory of language generation. However, we question whether its restriction to humans alone is sustainable from a scientific perspective by putting forth the claim that Chomsky's science is in fact a radical ontology of social subjectivation.

Keywords: Chomsky, Noam; human nature; language faculty; biolinguistic enterprise; decoding Chomsky; freedom.

Resumo: Uma das constantes no posicionamento filosófico, linguístico e ético de Noam Chomsky é a existência do que ele chama de "natureza humana". Seguindo Marx, Darwin e as revoluções do último século nas ciências sociais, a natureza humana tem sido um dos remanescentes conceituais mais contestados da filosofia moderna europeia. As descobertas e os modelos de Chomsky sobre a sintaxe e a linguagem, configuram um dos quadros que mais objeta criticamente a tradicional dimensão moral da natureza humana. Contrária à maioria das tradições anteriores ao seu trabalho, a linguagem não pode mais ser restringida à mente, alma ou ao espírito. Linguagem, como Chomsky tem constantemente defendido e fortemente aperfeiçoado, é um processo físico e biológico. Mas a maneira que sua noção de natureza humana deriva desse processo é complexa, pois ele parece desconsiderar a clássica delineação analítica da filosofia, entre o

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reino casual descritivo da natureza humana e as extensões axiológico-normativas do mesmo conceito. Neste artigo, nós procuramos examinar as implicações filosóficas e ontológicas da afirmação de Chomsky à qual a natureza humana deriva da dimensão inata da faculdade da linguagem. Chomsky, não só mantém a categoria da natureza humana, como também a indexa à questão da liberdade. Nós, portanto, argumentamos em favor da coerência de sua proposta e mostramos como ela opera para soldar a perspectiva de uma teoria modal da criatividade biologicamente enraizada, com condições inatas específicas de sua teoria da linguagem gerativa. Entretanto, nós questionamos se a restrição dessa somente aos humanos é sustentável a partir de uma perspectiva científica, ao apresentarmos a afirmação de que a ciência de Chomsky é na verdade uma ontologia radical de subjetivação social.

Palavras-chave: Chomsky, Noam; natureza humana; faculdade de linguagem; programa biolinguístico; decodificando Chomsky; liberdade.

Introduction

Ever since his noted televised debate with French philosopher Michel Foucault, Noam Chomsky's theory of human nature has been one of the most contested aspects of his general philosophical project. That his idea of human nature is linked to a radically egalitarian political vision has come into conflict with theoreticians on the nature of scientific inquiry and how and why "science" must respect delineations with respect to the human and normative sciences. Even were one to take sides with the continental structuralist approach to science, whereby the social and political nature of the scientific enterprise is pitted against the espoused universality of its ontological models, one inevitably ends up with conflicting models between a formal-logical or social ontology. Chomsky's concept of human nature is clearly social insofar as its finality is not merely functional at the level of the individual human organism, but constructive of the collective aspirations of the human polity. He does however concede that "the exact properties of human nature are difficult to substantiate." (Chomsky, 2008, web). Moreover, his concept of human nature is clearly normative insofar as it considers the aims and objectives of humankind's political strivings as the building of an egalitarian society in its economic as well as legal dimensions.

Where Chomsky's argument breaches the criteria of contemporary philosophy of science is when he seeks to set human nature within the biological process specific to the language faculty. To achieve this, he coherently strips the category of human nature from its main culturally-specific axiological claims. The core of his theory of human nature is thus reduced to a series of designators, the primary one of which is freedom. Despite appearances to the contrary, Chomsky's philosophical

strategy is not Kantian. Freedom is not an a priori of human subjectivity any more than is it a social construct deviating from the inherent causality of the natural order. And he states as much in his 1972 debate with Michel Foucault: "I think it would be a great shame to put aside entirely the somewhat more abstract and philosophical task of trying to draw the connections between a concept of human nature that gives full scope to freedom and dignity and creativity and other fundamental human characteristics, and to relate that to some notion of social structure in which those properties could be realized and in which meaningful human life could take place" (Chomsky, 2006, 42-43). In the years after the debate, Chomsky came increasingly to see freedom as a direct consequence of the essential creativity imbedded in the innate computational process of the production of syntactical forms, that is, in what he refers to as the language faculty (FL). As such, the sense of freedom would be distributed uniformly amongst all human beings. Whether it reaches its potential is what the nature of human social, political and legal institutions come to determine historically. We could say that the notions of freedom and creativity in this earlier period in his thought are very similar and often indistinguishable. Later on, creativity appears to be a "biolinguistic" process, one that legitimates or shows the existence of freedom in our human nature.

As such, Chomsky has never focused on the question of human nature and freedom alone. They are not conceptualized outside of the physicalist framework in which pragmatic interpretations of creative productions are also generated by the language faculty. This is clearly reiterated in his recent Dewey Lectures, given at Columbia University in 2013, when he critically mentions Daniel Stoljar's take on physicalism and the physical. Stoljar takes physicalism to set the "background metaphysical assumption against which the problems of philosophy of mind are posed and discussed." (Chomsky, 2016a, p. 122). It comes as no surprise to find Chomsky critical of this brand of metaphysical surrender, but his pragmatic solution also seems to jump the factual gun. As he states in 2009, "A more appropriate formulation, I think, is to recognize that post-Newton, the concept 'physical facts' means nothing more than what the best current scientific theory postulates, hence should be seen as a rhetorical device of clarification, adding no substantive content." (Chomsky, 2009, p. 199). What can lead to misunderstanding in his

defense of physicalism is the move from facts, albeit in square quotes, to theoretical postulates. In that regard, neither facts nor metaphysics properly refers to the field in which theories are generated. On the other, a contemporary ontology that integrates "the best current scientific postulates" on physicalism most certainly does. We take physicalism as referring to the formalized material conditions by which conceptual and discursive parameters are generated by contemporary ontology on how to build scientific theories.

One of the primary impacts of his biolinguistic postulates on the "Universal Grammar" theory explaining them is that language offsets any dualism. Were language a part of the body's unconscious productions, the nature of physicality in relation to the body would have to account for rational processes far withdrawn from any conscious level of deliberation. Chomsky has not considered a reevaluation necessary of his concepts through the successive models his understanding of language has taken since the revolution his initial contributions first fostered in the field of linguistics. Nevertheless, he is the first to recognize that neither UG nor FL has solved the major dilemma of how to delimit the human body. In fact, they have both complicated it to the point of stamping a philosophical imprint into what still strives to maintain currency solely within the experimental sciences.

Still, for all the sense it makes to ground the generative concept of language in a physicalist conception of human nature, it is much more problematic to associate it with freedom. Indeed, one may recall Arundhati Roy's quite pertinent observation: "If I were asked to choose *one* of Noam Chomsky's major contributions to the world, it would be the fact that he has unmasked the ugly, manipulative, ruthless universe that exists behind that beautiful, sunny word 'freedom'." (Roy, 2003, p. x). Freedom, at least as it is understood today, is so socially constructed, embedded and open to ideological packaging, thus simultaneously consumerist and normative, there seems no way back to rationally ground the idea – assuming there ever was one.

Yet Chomsky would disagree. Freedom is an integral part of the human nature referred to by the faculty of language. As he states in the early 1970s:

> Language, in its essential properties and the manner of its use, provides the basic criterion for determining that another organism is a being with a human mind and the human capacity for free thought and self-expression, and with the essential human need for freedom from the external constraints of repressive authority. (Chomsky, 1973, p. 6)

Despite how central the notion of freedom continues to be in relation to his general theory of human nature, Chomsky has refused to make the additional step to link his scientific model to political orientation or indeed the engagement in regard to which he has set an admirable international example. Still, what he does not see as an inference from UG has not prevented observers from vigorously questioning.

It is no secret that Chomsky has been severely criticized and at times attacked by the likes of D. Everett (1991) and T. Wolfe (2016) for implicitly setting a political parser into his theory of UG. In a more recent high-profile criticism, (Knight, 2016) argues this time from the perspective of Marxist anthropology that Chomsky intentionally developed an anti-culturalist, theory-laden or positivist model of language generation that would be related to US Defense Department funding criteria at MIT. The upshot of Knight's claim is that the theory of generative grammar would be "abstract non-sense" as it developed, in part at least, from Chomsky's resistance to the application of his early machine-to-machine translation interface to ballistic missiles. Knight goes on to claim that the confusion arising over Chomsky's political activism and its apparent disconnect from his theoretical enterprise has to be understood according to the Pentagon-warranted freedom given to the research programs it has funded – or those it continues to fund through Ivy-League technological institutes such as MIT.

Knight's allegations notwithstanding, we believe it is necessary to summarize his deeper argument despite its ideological overtones. Knight holds that Chomsky's professional survival at MIT depended on staying clear of a Marxist political line during the actions in civil disobedience and political dissidence since has led since the 1960s. He goes on to claim that Chomsky's entire life as a dissident was protected by how strongly he stood to this line of anarchist political thought, as opposed to any suspected sympathies to Marxism, which would have been anathema to his career. Chomsky would have thus intentionally kept his politics at a distance from his linguistic science despite how a logical inference drawn

from his speculations on universal creativity and freedom would have gone ever further to justify civil disobedience – perhaps through crafting a radical theory of political affects.

The question of institutional background and the theoretical consequences of moral doubt resulting from research funding is deep and disturbing. But our task is to analyze a theory primarily from its categories and theorems. Against politically reductive claims, the aim of our analysis is to show how an inferential theory of human nature drawn from the general theory of syntactic generation can be better understood – or indeed justified – if set against the principles and parameters once espoused by Aristotle for a first philosophy in Book Gamma of his *Metaphysics*. Since the dawn of philosophy, ontological model making is the way to reach universal quantification of scientific claims when applied to human nature. Even though we do not wish to question why Chomsky may have preferred an anarchist theory of free association between workers to a critique of political economy that recognizes the strength of Marx's analysis in *Capital* as well as his accomplishments in leading the First International, our defense of Chomsky's concept of human nature is not made easier by his regular disparaging of most philosophical theories on language and science. If freedom is connected to creativity and human nature, and the specific concept of freedom projects into an association of workers in counter-corporate groups whose individual commitments bind to collectively create the basis of a just society, then it seems not only worthwhile scientifically but also fundamental philosophically to understand what is at stake epistemologically and politically in his theory *per se*. To achieve this, a critic would have to shed herself of cultural and academic resistance to the art of constructing theories, which hardly seems to be the case of most of Chomsky's detractors.

An additional point of interest behind the objectives of our inquiry is whether there has been any fluctuation in the debates as to how Chomsky conceives of human nature. In other words, has the conceptual sense behind justice and freedom become part of his current minimalist hypothesis and biolinguistic program, even as it has put forth a narrower modeling of the language capacity? Our path first examines the course of his positions on human nature, then reports on its integration in the Strong Minimalist Hypothesis. We converge on the claim that Chomsky's theory presupposes a philosophical commitment in favor of a structuralist

ontology. As we reach our conclusive remarks, elements are introduced to offset criticism over the supposed lack of empirical evidence to support his broader claims on language, body and human nature. As philosophers, we should like to stress the idea that Chomsky's theoretical model is ontological in nature and that his model of human nature, by that very fact, is sufficient to warrant an inferential connection to practices which work toward a freer and fairer society.

I

Early in the 1970s, Chomsky responded to the suggested topic of freedom for a conference he was invited to give in Mumbai, India (Chomsky, 1973). His rhetorical strategy began by stating bepuzzlement about an idea he took to be self-evident, namely that language and freedom are not intellectual entities that can be connected in any significant, rationalist way, beyond what would then become a merely speculative connection. This skepticism characterizes the attitude most often espoused by him regarding challenges to connect his linguistic theory with his political analysis and activism. In essays in which Chomsky engages with broader philosophical issues, his usual course of argumentation is to delve into the European Enlightenment tradition to show how the rationalist analysis of knowledge and language was part of a revolutionary moment to make freedom ever more part of humankind's essential nature and purpose. Such a strategy is explored early on in more historical works like *Cartesian Linguistics* (1966). Back in Mumbai, references to German thinkers like Schelling and Wilhelm von Humboldt are made in his response to the interviewer, as are Rousseau and Darwin. Then subtly Chomsky switches registers to contemporary revolutionary movements. What is striking in this Mumbai interview is how he disregards the distinction made by political scholars about the nature of popular revolutions and the way to read the social contract theorists, as if revolution had already lost its dialectical force as an ethical event.

If there is one point of agreement in the broader spectrum of liberal theoretical positions on politics today, it would be how a fundamental difference lies between the Enlightenment-inspired revolutions, usually striving to implement a market economy upheld by constitutional rights and freedoms, and the Marxist-Leninist turn

emphasizing how without a State-managed economy guaranteeing access to economic equality, freedom becomes a mere proxy. State meddling in market activities would aim to hamper freedom's revolutionary scope and practice by putting a price on its accomplishments. Even though he relies on models from the history and philosophy of science, Chomsky does not always prepare his readers for a fundamental switch from what is part of orthodoxy in academic circles today. Against the grain, readers are faced with the idea that natural science and political thought are not fundamentally separate fields of thought, though he does not seek merely to politicize scientific inquiry. Reinforcing continuity with the scientific visions expressed by Enlightenment thinkers regarding how scientific discovery makes us freer, his reasoning also lifts the reader to the idea how our freedom is boundless. In "Language and Freedom", this is best expressed when asserting that,

> There is no inconsistency in the notion that the restrictive attributes of mind underlie a historically evolving human nature that develops within the limits that they set; or that these attributes of mind provide the possibility of self-perfection; or that, by providing the consciousness of freedom, these essential attributes of human nature give man the opportunity to create social conditions and social forms to maximize the possibilities for freedom, diversity, and individual self-realization (Chomsky, 2017b, p. 6-7).

Human nature is thus clearly stated to be "historically evolving", but with a caveat. Just as he leaves aside its scientifically attributed content, so does Chomsky also draw back from any discussion of historiography. Freedom as well as diversity are realized within the boundlessness they imply. It is within an adequately accomplished set of social conditions and forms that the "essential attributes of human nature" provide the "consciousness" of freedom, instead of freedom itself. It is in such statements that the more fundamental scientific, epistemological and ontological drives to the theory come to the forefront, as if in an explicatory interlude. Thereafter, he tends to return to a skeptical position regarding the knowledge acquired over such processes. This does not at all imply that the product of these attributes cannot be described as freedom and diversity, but merely that his conception of human nature is scientific insofar as it relies on the discovery of the language capacity as a

biologically created and replicated operational system to be grounded. Its derived product is a boundless possibility of freedom stemming from the combinatorial possibilities of syntactic structures as they are externalized as a localized language shaped by different social parameters.

The Chomsky-Foucault debate represents one of the summits in the juxtaposition of two rationalist philosophies of emancipation. Foucault represents, of course, the tradition of nineteenth-century French rationalism as it developed within the human sciences. The historical instability of the latter, especially shown regarding the philosophical concepts they inherited, gave rise to the structuralist analysis of discontinuous epistemic periods and declarations on the end of humanism. Chomsky's own rationalism was also played out at the time by readings of the broader French and German traditions. Where historical knowledge led Foucault to relativize the major concepts of modern philosophy, Chomsky saw in the analysis of deep linguistic structure a way to maintain continuity with the Enlightenment tradition. The resources acquired from both methodologies converged upon a similar critique of power and struggle in the work of both of these thinkers.

Still within the context of this debate, the subtlety of Chomsky's argument in favor of a theory of human nature was partly drowned out by the successive waves of Foucault's anti-essentialist rebuttals. Nonetheless, it is possible to question whether Foucault hastily overlooked another perspective behind the task to undermine essentialism and transcendental arguments. This perspective is more specific to Claude Lévi-Strauss's descriptive structuralism than to the masking of hegemonic positions by a normative essentialism (Levi-Strauss, 1987). Where Foucault strives to show how the biological and medical sciences had moved swaths of heuristic interpretations to the margins of what would become scientific fact as regards mind, body, language and pathologies, Chomsky seeks to rearticulate what of biological discoveries on language can be maintained as proven scientific fact. At the time the debate was held, though, there was no recourse to linking freedom to biology beyond the positivist scientific models in vogue and what remained from interest in some branches of F. Engels's writings on nature. In biology, François Jacob's inaugural work on epigenesis (Jacob, 1972) or the rising Darwinian dissident, Stephen Jay Gould (Eldrige and Gould, 1972) were still outliers at the time.

In light of the debate, it might be simple to try to classify Chomsky a naturalist. He has espoused this position at times although not without rejecting the existence of a priori principles or essences. Naturalism has always had its shortcomings, as it has frequently been used by philosophers to rid themselves of the responsibility of questioning the way science is actually done. This is why it is much more interesting to follow Chomsky's transformation of realism from a scientific perspective. Perhaps the furthest step he explicitly makes in erasing the demarcation principle is in his acceptance of C.S. Peirce's concept of abduction to underscore how interpretative potential is as much part of a natural capacity as is language used in a communicative sense. Abduction is an autonomous capacity of the mind which does not depend upon mental states being conscious. Although this assumption does not immediately prove that mind is part of a natural system, it does question what material support mind requires in order to actually carry out the process. Therein does its theoretical potential grow. As Wilkin accurately points out in an incisive essay contrasting Chomsky's understanding of human nature from Foucault's critique of it, Chomsky "provides an immediate challenge to the anti-essentialist premises underlying Foucault's work." (Wilkin, 1998, p. 188).

In our view, Chomsky is both a structuralist and a realist, at least as far as human nature is concerned. His conception of material reality and its causal strings requires for theory to provide a formal grammar inscribed into the causal physical succession of natural phenomena (Madarasz, 2016). This grammar has come to be recognized as unobservable either by the naked eye or by machine proxies. Yet a theory's adequacy depends on successfully grasping the abductive force through which biological phenomena particularly reach their objectives.

The single most polemical exchange in the debate with Foucault occurs in the following exchange on justice.

> Foucault: "And contrary to what you think you can't prevent me from believing that these notions of human nature, of justice, of the realization of the essence of human beings, are all notions and concepts which have been formed within our civilization, within our type of knowledge and our form of philosophy, and that as a result form part of our class system; and that one can't, however regrettable it may be, put forward these notions to describe or justify a fight which should—and shall in principle—

overthrow the very fundaments of our society. This is an extrapolation for which I can't find the historical justification. That's the point."

Chomsky: "Well, here I really disagree. I think there is some sort of an absolute basis—if you press me too hard I'll be in trouble, because I can't sketch it out —ultimately residing in fundamental human qualities, in terms of which a 'real' notion of justice is grounded." (CHOMSKY, 2006, p. 55)

Whatever can be observed about this exchange, perhaps what has to be most lamented is how divisive the perception of it has become in later theory. As a result of Foucault's subsequent challenges and posture, Chomsky came to feel slighted by his French interlocutor. His summary remarks regarding post-structuralism and its "post-modernist" stance has unfortunately attracted him to the ill-fated attempt by A. Sokal and J. Bricmont to jettison social constructivism in name of a nostalgic Enlightenment vision of reason. Bricmont himself later tried to seize Chomsky's indignation to further a liberal socialist political agenda. From what we have been able to gather, Chomsky's libertarian socialist or anarchist political commitment has little if anything to do with Bricmont and Sokal's collegial militancy in bad faith. Indeed, on this point, Chomsky's radicalism meets up with Foucault's insofar as both espouse the need for revolution to further the idea of a just society as rationally viable.

The key word missing from Chomsky's reply to Foucault is creation. Insofar as one can assume that humans have fundamental moral qualities, they are conveyed by capacities such as language to work on the material conditions by which they might be put into place. Chomsky emphasizes that there is a way for humans to judge whether they are making inroads in such a construction, even though the content can only be examined after being carried out. He has spent the next three decades sharpening the inherent moral nature of fundamentally creativity-specific biolinguistic model, from which an ethical conception of work would also arise.

Neither work nor freedom are a priori built into the human will, as Locke or Hegel hold, for they are language-specific. Prior to being a normative claim, it stands to reason that some natural human capacities are formal as well as pragmatic. One can point to the result of the language

phenotype as well as what Chomsky has come to consider as other phenotypes contingently interacting with it (Berwick and Chomsky, 2015). However one sees freedom or justice, what makes these processes coherent is something also constitutive of thought – and not the other way around. The external parameters are what count in Chomsky's libertarian socialism instead of transcendent principles as argued from a metaphysical perspective. None of this precludes that from the experience of building just societies, which have often been failed experiences, libertarian socialism might lead investigators to gain greater insight into an ontology of human nature whose material support has to be the starting point of broader conceptual speculation what is proper to the human body.

The excerpt on Chomsky and Foucault's disagreement quoted above leave us with an objective view of the "base" of universally defended conclusions Chomsky calls "virtual truisms" of an "odd kind" (Chomsky, 2016a, p. 26). In his 2013 Dewey lectures, he describes what he means by underscoring how they are proposed premises professed by any human being, even if not actually defended. That is, they are "not only universal in that they are virtually always professed, but doubly universal, in that at the same time they are almost universally rejected in practice." (Ibid.). If we recall the debate, we can fairly assert that Chomsky believes even the most abominable political systems were implemented by envisioning a more just or better society in general, that is, even some fascist leaders believed what they were doing was for the "greater good". As "social beings" it is common to think of political and ethical alternative policies that would bring us closer to a more just society in favor of "the rights and welfare of people, to fulfilling their just aspirations – in brief, the common good." (Chomsky, 2016a, p. 26). Therefore, a concern for the common good seems to lead the human species into a continuous search for self-improvement. This process is rooted in the aforementioned capability for creativity, one structured by our biological endowment.

An important notion for the advancement of Chomsky's social thought is the idea of admissible hypotheses. These are derived from the congruent and metaphorical space between possible theories (ethical, political, moral, or scientific) and true theories (real, not false apprehensions) which can be said to be the "best achievable knowledge" of the human mind. Accordingly, the constraints UG presents in our

understanding of the language faculty leads us to the congruent space called natural languages, languages that evolved culturally, but are not considered "artificial", technologically created. This is almost a cut-off point in the understanding of Chomsky's scientific enterprise, for he does not isolate a causal configuration to explain the faculty of language. His science requires for living languages to be analyzed as if they were populations. If demonstrating commonality in acquisition, physical brain size and phonological use, it becomes theoretically adequate to uphold the claim that it is part of humankind's nature to be endowed with the language faculty. Likewise, our developed political thinking is bound to the same mind/brain constraints. For this reason, if we follow Chomsky's ideas to the letter, we should *reach* a notion or social formation that is an entirely free of external barriers to our natural and biological development, one that increasingly maintains expansion of the congruent space of the human mind/brain.

Despite not connecting his own political persuasions to FL, Chomsky does not think his political thought stems from opinion or qualitative assessment as being "the best one". His assertiveness in regards to anarchism is based on defending it as the best political theory for our human nature. In other words, the "best" society is the one that questions and dismantles any illegitimate form of power over our natural capacities. Human beings have a free drive to create, and as such must have freedom over cognitive development as well as conditions for the body to grow in the best way for cognitive creativity to prosper. The society in which this proceeds is, in his view, libertarian-socialist and anti-Statist. In such formations, any human being is equally and naturally driven by functions derived from innate I-language processes, to which we return in greater detail in section II. For now, though, it is possible to see how his political conception derives at least formally and quantitatively from his science of language, notwithstanding his own reluctance to provide a model for it.

The third of the 2013 Dewey lectures deals with the common good. Chomsky holds that our biologically provided tools are enough to move forward into a form of societal organization that corresponds to our natural demands. Nonetheless, he is cautious when arguing for anarchist revolution. Referring to Rudolf Rocker, Chomsky states that "anarchism is, famously, opposed to the state, while advocating planned

administration of things in the interest of the community" (Chomsky, 2016a, p. 29). This position makes him a supporter of "state power to protect people, society, and the earth itself from the ravages of concentrated private capital" (Chomsky, 2016a, p. 29). A better example of this anarchist persuasion is given by Chomsky when referring to a figure of speech used by the Brazilian rural workers movement (MST):

> They speak of widening the floors of the cage, the cage of existing coercive institutions that can be widened by popular struggle [...] And we can extend the image to think of the cage of coercive state institutions as a protection from savage beasts roaming outside, the predatory state-supported capitalist institutions that are dedicated in principle to the vile maxim of the masters, to private gain, power and domination, with the interest of the community and its members at most a footnote, perhaps revered in rhetoric but dismissed in practice as a matter of principle and even law. (Chomsky, 2016a, p. 29)

The way we as a species can have success in reaching the anarcho-syndicalist society is through the process of questioning and dismantling power, even if it makes us momentarily exist side by side with a government favoring the rights of peoples. The common good is the goal of all political/ethical proposals. A better understanding of human nature can give us the insights needed to defend a realistic approach to political thinking. In Wilkin's words, "[Chomsky's] commitment to egalitarian social and political forms is underpinned by his account of human nature which sees human beings as potentially free and creative creatures, capable of cooperative and voluntary organisation." (Wilkin, 1997, p. 83). This initial finding is the foundation for the criteria to formulate the conceptions of our human cognitive development, educational proposals, ethical paths and political societies. Every operational discovery of our human nature brings us one step closer to better possible practical implementations. The libertarian socialist or anarcho-syndicalist society would thus be the one that gives us minimally what we need to achieve our maximum human potential. Any form of illegitimate power has to be excluded from the framework of an anarchist society. Quoting Daniel Guerin's book title, *No God, no Master,* Chomsky furthers this phrase as symbolizing his own thought. As he puts it, *No Master* "refers not to individual belief, but to a social relation, a relation of subordination and dominance that anarchism seeks to dismantle and rebuild from below"

(Chomsky, 2016a, p. 29). Such a process requires for our "education [...] to be conceived as laying out a string along which learners proceed in their own ways, exercising and improving their creative capacities and imaginations and experiencing the joy of discovery" (Chomsky, 2016a, p. 31).

Chomsky's steadfastness has created a number of detractors and critiques. As they have emerged, the question arises as to what the new cohort rejecting his conception of human nature actually opposes. As stated in the introduction to this essay, two tendencies can be observed. The first is conservative and the other is Marxist. It is striking that both converge to undermine his political dissidence by rejecting the formalism of his biolinguistic model of language generation. In the next section, we examine the model, returning to his critics in the last section.

II

Chomsky reluctantly acknowledges that his linguistic theory, UG, consists of a number of different and shifting claims made throughout his career as a research scientist about the language phenotype. What he rejects is that the existence of a language phenotype, also termed capacity or faculty, would be controversial. What exactly amounts to the language faculty has not been the source of constancy in his research program since his early work, and even less in the work of his associates, as Michal Tomasello has pointed out (Tomasello, 2004). At least since 2002, Chomsky and his collaborators, like Tecumseh Fitch, Marc Hauser, Robert Berwick, and associates like Ian Tattersall, have focused on a minimalist "program" or hypothesis in which the language faculty is a two-tiered entity delimited to be a computational entity innate to the human brain and linked to two fundamental interfaces (Hauser, Chomsky, Fitch, 2002). The two interfaces integrate non-minimalist semantic features into FL/UG, these being the conceptual-intentional and sensory-motor part of the outer shell of its architecture. In this section we seek to identify the framework of explanatory adequation that underlies his theoretical commitment to UG. We hope to show how the philosophical impact of UG on existing models of first philosophy, on ontology, is strong enough to work as a substitute from a purely formal level. As a result, ontology can be said to integrate the generative operator. The upshot would be that the

concept of radical change can now be modeled as an inferential process, albeit political practice requires assent to a reinforced and complex model of theoretical formalism.

As we aim for theoretical adequacy regarding the formulation of a concept of human nature, the initial parameter for our investigation is descriptive accuracy drawn from the scientific study of language in linguistics. For Chomsky, there is little doubt about it being the most advanced field of study to help us understand the nature of humans. As he writes, "If language is to provide a springboard for the investigation of other problems of human nature, it is these aspects of language to which we will have to turn our attention. [...] It is only these aspects that are reasonably well understood" (Chomsky, 1973, p. 1). For this reason, it is imperative for us to understand what the basic aspects of Chomsky's theory of language acquisition are as it has shifted and been transformed into his most recent Strong Minimalist Thesis (SMT). Earlier models represent Chomsky's first ideas on an internal, innate, natural and biological components innate to the human child's capability of learning a language. One of the innovations brought about by Chomsky's linguistic theory is that we do not learn our first language but acquire it. It is not a process we, as children, would carry out, as much as it is produced by our organism's internal capacity to generate future use of this first as well as other languages.

While non-human animals may use different forms of communication, Chomsky and his colleagues argue that they do not possess the organ or phenotype responsible for the development of language. As they assert, "most commentators agree that, although bees dance, birds sing, and chimpanzees grunt, these systems of communication differ qualitatively from human language." (Chomsky, 2002, p. 2). Language would thus be a uniquely biological human phenotype, in relation to which communication, at least in humans, may have taken shape through the various uses to which language is put. It is important to stress humans for the evolution of communication in non-human animals shows that is independent of language per se.

Following decades of demonstrating how language generation is distinct from use, Chomsky still appears to fall short of measuring what partakes of each. Until the language faculty can actually be shown to work, through neuroimaging technology for instance, counter-arguments

focusing on empirical causal evidence weaken his claims. This is the case with the arguments put forward by (S. Pinker and R. Jackendorff 2005; Campos, 2011) as they diminish the syntactic dimension of Chomsky's argument by focusing on the organism's phonological contribution to exteriorizing whatever structural production might arise in the brain. Verbal communication cannot be separated to show its syntactic core, more so when a given language group has not developed written language. Phrasal structure is not clearly evidenced in such cases, apart from how in some cases, as argued by (Everett, 1991), the fundamental attributes of recursivity and numeration might be lacking.

With that caveat expressed, there remains the irreducible empirical fact that structured and temporally modulated language use is simply not found amongst other communicating species. It should thus stand to reason that communication is not a consequence of non-human organisms bearing the faculty of language. Chomsky makes the further point that "there's a kind of taxonomy of animal cries, and human language doesn't even fit into the taxonomy, I think, in any of the senses." (Chomsky, 2012, p. 2). This implies that language is not in any way similar to a solely externalized system (cries and singing), but most plausibly plays itself out according to an internal scheme involved with what paleoanthropologists call symbol manipulation. The subsequent capabilities acquired by human beings might be similar to song birds or parrots, as the human ability to externalize language into a form of expression and communication involves imitation of sounds. But this is the point at which the SMT introduces the specific nature of the hierarchical structure in syntactic strings that are reflected in sentence morphology. While the child's ability to imitate and copy words is non-controversial, the same child has no capacity to acquire knowledge of how these complex relations are shaped. Taking these essential insights in the faculty of language as empirical evidence to prove how humans are unique in possessing it, it is possible then to establish a strong relationship of linguistics to biology. As Chomsky explains in an interview give to Popescu,

> Everyone rational must recognize that there is some genetic element that distinguishes humans from cats, apes, birds, etc., with regard to language learning. The question is: What is it? The answer is an "innate" theory. It has been understood for a long time, of course, that innate properties

typically must be triggered and shaped by experience, so there are invariably complex interactions. There is no reason to be worried about the results of such investigations, or to believe that what might be discovered would support conclusions with harmful human consequences. Quite the contrary. We should hope that such discoveries might someday provide understanding of the nature of human freedom and the ways to enhance it, carrying forward leading concerns of the Enlightenment and since – and incidentally, perhaps approaching some understanding of Humboldt's observation." (Chomsky, Popescu, 2013, p. 215)

From this perspective, prior to explaining language "rules", tendencies, components and its behaviors, what would seem to be crucial for research is to clarify the biological conception of language. As such, language can be better understood as "a particular object of the biological world. [Its study], so understood, has come to be called the biolinguistic perspective" (Chomsky, 2016b, p. 53).

Other questions arise after taking into account this innateness approach to language. Since language is biological, has it evolved like other functions in organisms? And finally how is language directly related to human nature? Chomsky's latest explanatory model has become increasingly multidisciplinary:

The biolinguistic perspective views a person's language in all of its aspects – sound, meaning, structure — as a state of some component of the mind, understanding "mind" in the sense of 18th century scientists who recognized that after Newton's demolition of the "mechanical philosophy," based on the intuitive concept of a material world, no coherent mind-body problem remains, and we can only regard aspects of the world "termed mental," as the result of "such an organical structure as that of the brain," as chemist-philosopher Joseph Priestley observed" (Chomsky, 2018, p.1).

To further understand the biolinguistic approach, it also important to establish a terminological distinction between capacity and system. When Chomsky speaks of the language faculty, instinct, capacity or more recently, "phenotype" (FL), he refers to an actually existing biological system. Perhaps the most complete description of the faculty is in (Hauser,

Chomsky, Fitch, 2002), though he describes this system at length in (Chomsky, McGilvray, 2012) and in the Dewey Lectures presented at Columbia University in 2013 (Chomsky, 2015), in addition to more recent work published in collaboration with Robert Berwick.

In his discussion with McGilvray, Chomsky stresses that Universal Grammar (UG), his explanatory theory of how syntactic structures are generated in the human brain refers to the theory of how FL works as a biological system. Even though he often mitigates the transformations his theory of the generation of syntactic structure has undergone, he coherently maintains that nothing has changed regarding FL *per se*. This suggests UG has indeed evolved from an information-systems model to X-Bar theory, to the parameters and principles approach first presented in the Pisa lectures of the late 1970s, to the minimalist program and biolinguistic enterprise now referred to as the Strong Minimalist Hypothesis. Accordingly, it stands to reason that the biological system *per se* FL has not undergone any changes any more than has the process of human digestion -- although the theory explaining it has.

How human beings came to be endowed with FL is one of the most debated aspects of his theory. From the historical perspective, some groups of homo sapiens would have acquired FL prior to the migration from the African continent to other parts of the planet. An abrupt event that originated language would have happened "somewhere within the very narrow window of 50.000 to 100.000 years ago" (Chomsky, 2016a, p. 2), as it "does not postdate [...] the trek from Africa." (Chomsky, 2012, p. 2). In the paleontological record, there is no indication language was present in other hominids, let alone in ancestors of the hominid genus. In a recent formulation, FL is understood to be "a computational cognitive mechanism that has hierarchical syntactic structure at its core." (Bolhuis, Chomsky, Tattersall et al, 2014, p.1). The core of this mechanism is the capacity of forming a set from two distinct elements, the initial step of creating a string with potentially infinite variational possibilities. Chomsky refers to this process as *Merge*. Its set-theoretic aspect seems to guarantee the independence of the atomic terms in the string, which when filtered through the interfaces of the broader device transform its endless formational possibilities for a likeminded individual into something beyond a mere flux of indistinct sounds.

In turn, Chomsky's major, indeed unorthodox, claim is that the faculty of language is not caused by evolution. Denying the basic tenet of the modern Darwinian synthesis on language, according to which phonetic dependency logically makes language the result of both evolved facial structure as well as brain size and density, a more plausible notion of "emergence" is introduced, one related to a phenomenon that is primarily generational in nature and whose products are not things per se, but structures. While acknowledging that UG cannot aspire for descriptive adequacy regarding FL, as FL is not perceivable as a thing or machine, by delimiting his theory to the production of unperceivable syntactic structures and showing how they combinatorily shape the pragmatic use of language in the multitude of cultural and linguistic contexts, Chomsky nonetheless presents satisfactory conditions to verify *explanatory adequacy* regarding the cause and origin of language use. In his view, language would have happened as genetic mutation that permitted the internal association and formulation of discrete term-thoughts in a steady flow of varied sound. His argument is based on the idea that "since no other animal has language, it appears to be a biological leap, violating Linnaeus and Darwin's principle" (Chomsky, 2016b, p. 3). This leap does not follow the gradual or punctuated progression of natural selection proposed by Darwin, even were it to be seen as fully discontinuous.

The term "genetic mutation" may not be satisfactory as compensation for the emergence of a process that is not accountable by natural selection. To rebut objections, (Bolhuis, Chomsky et al., 2014) emphasize how the theory of evolution has recently shown the existence of very fast natural processes of transformation, an idea for which Darwin himself could not account. Apparently, "some small mutation took place, leading to the great leap forward" (Chomsky, 2012, p. 3) providing "selectional advantage" and thus enabling the transmission of thoughts, speech (proper word-sounds with meaning) later on and the migration of humans from Africa throughout Eurasia. In addition, "as far as we know, apart from pathology, the language faculty is uniform in the human population" (Chomsky, 2016b, p. 54). This uniformity would confirm a universal biological feature of the human being, which "from the biolinguistics perspective" is "an "organ of the body", more or less on a par with the visual or digestive or immune systems [...] It is a

subcomponent of a complex organism"(Chomsky, 2016b, p. 56). For these reasons, the study of language, biology and anthropology above all gives us the basic evidence to generate and speculate on a "behavior" of the organ of language that, were Chomsky's claim confirmed, would not be exclusively destined to language production. Research into the organism of which language is a subcomponent can show responsibility for the many other cognitive faculties of our brain, thereby opening the door to the study of human nature as such.

Granted, Chomsky's writings on linguistics are rarely filled with references to experiments in psycholinguistics. Yet the scope of study is restricted in his work to acquisition of language use in children and in the hard of hearing. An elementary idea on the acquisition of language later displayed as "Plato's problem" in Chomsky's book *Knowledge of Language* is elaborated as to "how we can know so much given that we have such limited experience." (Chomsky, 1986, p. XXV). Accordingly, an infant learns a language by simply listening to and repeating words. A parent speaks with or near to her offspring who in turn repeats what is said until eventually speaking the same language. Were one to rely solely on such imitation-based explanations of language acquisition, one would still not answer the question as to how a child can elaborate new sentences previously not heard, and quite plausibly not understood. The key to explaining first language acquisition by the child is through a notion of "poverty of stimulus", at one point being restated as Plato's problem. As with other biological components of our body, the faculty of language must have external stimulus to grow. The evidence provided for the content of language is not merely imitational, but structural.

This process of forming and structuring phrases in what is already highly articulated knowledge when compared to non-human animals, requires a system to arrange the words and properly connect them into sentences that make sense for the hearer. A simple linear repetition does not account for the creative, innovative or structural aspect of language use in humans. In that perspective, the fundamental characteristics of natural languages (not artificially created, but those having grown throughout the years of human history) seemed at first too complex to manage the whole possibilities of a complicated system. Given that FL occurs in each and every child uniformly, with a very low coefficient of error, it most likely is simple in its mechanism, thus requiring UG also to

map it as a minimalist system. This is way "complex linguistic rule systems are now a thing of the past, they have been replaced by much simpler, hence more evolutionarily plausible, approaches." (Chomsky, 2016, p. 2).

In virtue of this set of explanations, the Minimalist program was crafted as a theoretical model of linguistic generation that searches for the most basic and simplest operations giving rise to human language. Its major contribution is to set these operations as initially, indeed primarily, an internal process. The I-language contributes to forming a thought. On this basis, the human sense of self would be linked to the inner mechanisms of a set of specificities. Human nature is a designator now referring specifically to this set, the parameters of which are, at this point in biolinguistic research at least, open to interpretation and speculation.

The Strong Minimalist Thesis has resulted in positing a new streamlined computational core to FL, based on development pressures on every human organism in the first years of life. It maps what seems to be a considerably uncomplicated procedure as to how our minds grow since the activation of the language faculty. SMT considers how "the fundamental parametric properties of human language have remained fixed, varying only within prescribed limits." (Chomsky, 2016b, p. 54). Merge refers to the core of the mechanism. It can be understood as

> an operation that enables you to take mental objects [or concepts of some sort], already constructed, and make bigger mental objects out of them. [...] As soon as you have that, you have an infinite variety of hierarchically structured expressions [and thoughts] available to you. [...] Once you had this technique of construction and an infinite variety of hierarchically structured expressions to make use of these things, then you could suddenly think, plan, interpret, in a manner that no one else could. (Chomsky, 2012, p. 3)

Merge might guarantee the simplest operation, but its finding and theoretical confirmation might be the most fundamental characteristic of language as it is responsible for the successive selective advantages of our species. Its capability of producing "infinity" is given by the fact of new mental objects being an operational result able to explain the innovative and/or creative feature included in the child's learning process. As the argument shows, language is a new system operating with different pre-existing biological components given the already constructed mental

objects. However, merge is only the operation of a bigger system, the biological endowment of which sets the rules for its functioning that must be able to communicate with the pre-existing perhaps so as developed biological systems. Chomsky is non-committal how merge stands with respect to a purposed autonomous cerebral faculty of "cognition", but it seems implausible for cognition to arise without the central aspects of FL contributing.

Chomsky has also been critical of the notion of linguistic identity as occurring spontaneously in social forms. An historical analysis of linguistic drift shows how military conquest, class hegemony, the slave trade and colonial undertakings have all participated in shaping the inner regularity of languages in spite of how little outer difference there actually is between neighboring tongues. The creative aspect of language, though, is an internal process, occurring with the connection between the constraints of UG and the operations of Merge. Consequently, if UG is the defining restraint of all natural languages, it can be articulated as a "Basic Property" featured in any language, a property that must exist in all natural languages: "each language provides an unbounded array of hierarchically structured expressions that receive interpretations at two interfaces, sensorimotor for externalization and conceptual-intentional for mental process." (Chomsky, 2016a, p. 2).

The model thus presents the terminology of the two systems that interact with I-language. Regarding the formulation of the basic propriety, the details can be separated into three different systems:

> (1) an internal computational system that builds hierarchically structured expressions with systematic interpretations at the interfaces with two other internal systems, namely
> (2) a sensorimotor system for externalization as production or parsing, and
> (3) a conceptual system for inference, interpretation, planning, and the organization of action – what is informally called "thought" (Chomsky, 2016b, p. 11)

The conceptual-intentional system handles the formal processes as the sensorimotor interface corresponds to demands and organize the "sound" process. A more precise approach to all this is given in "The

Faculty of Language: What is it, Who has it, and How did it evolve?"[4], where Chomsky shows that the "sound" and "thought" systems are part of the faculty of language even though their functions are not exclusively related to language. To emphasize, the "faculty of language appears to be organized like the genetic code – hierarchical, generative, recursive and virtually limitless with respect to its scope of expressions." (Chomsky, 2002, p. 1569) The "recursive" characteristic of language is what enables the phenomenon of "displacement" to occur in the position terms may come to occupy in a syntactic string. Accordingly, the authors argue we can recognize more accurate conceptions of the language faculty when divided into the *broad sense* and *narrow sense*. The first one called Faculty of Language Broad (FLB) which includes the three already mentioned systems and the second one entitled Faculty of Language Narrow (FLN) this one standing for "the abstract linguistic computational system alone, independent of the other systems with which it interacts and interfaces. FLN is a component of FLB, and the mechanisms underlying it are some subset of those underlying FLB." (Chomsky, 2002, p. 1571).

FLN is notably the most fundamental element of the faculty of language as it is responsible for the unique trait of humans – recursion, though which the elementary set constructed by the computational merge mechanism has a potentially limitless expansion capacity. In its intercommunication with the other two systems of FLB, recursion permits the existence of an endless power of association within the finite tools in the brain, despite how "half" word or "half" sentences are structure the I-language. Another important factor of FLN is the assertiveness of a natural and human trait, given that "a trait present in nonhuman animals did not evolve specifically for human language, although it may be part of the language faculty and play an intimate role in language processing" (Chomsky, 2002, p. 1572). Although language is not a consequence of evolution, other systems or biological components that are part of the language faculty can and most probably have evolved.

If in the nineteen-seventies, Chomsky expressed a tendency for qualitative assessment of human nature based on an innate sense of justice specific to human beings, the SMH brought an inflection to his claim. FL,

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[4] HAUSER, M. D.; CHOMSKY, Noam; FITCH, Tecumseh. The Faculty of Language: What Is It, Who Has It, and How Did It Evolve? **Science,** [s.l.], v. 298, n. 5598, p.1569-1579, 22 nov. 2002. American Association for the Advancement of Science (AAAS).

though the theoretical model of UG, is now clearly a system, indeed a structural system. Contrary to the claims of many post-structuralists, there is nothing grammatical about UG, let alone FL. The inner core of FL build around merge is specific to human beings, thus already providing a demarcation regarding a basic human property. However, the outer core points to two interfaces that integrate not only semantic tendencies but pragmatic ones into UG. Chomsky has shown little patience for drawing out the philosophical structure to his theoretical norms, through a commitment to explanatory adequacy. Then again, he might not have to, given that the cohort of researchers working to empirically test his models has confirmed the descriptive adequacy of the theory as well. Still, Chomsky's science is inherently philosophical, a point he has stressed in his lectures and writings on the history of science. Philosophy, for him, is part of the Cartesian sciences, and its separation from experimental and empirical sciences is indeed recent.

However, there is more in our view to this question. The implication for philosophy brought by his science involves a shift in ontological models. We question whether social scientists trained in the empirical sciences are able to recognize how radical Chomsky's ontological proposal is. We hold that in his model there is no longer a gap between theoretical abstraction and concrete practices. The upshot is that to carry out acts of radical freedom in the social sphere becomes a question related precisely to the production of theoretical entities in which it is also shown how they come to alter our sense of reality.

Combining the innate creativity involved in the externalization of linguistic structure with the inherent parameters whereby the semantic source of freedom would seem to be linked to such creativity, human nature can be seen to be reconfigured in his work from the standpoint of a biological system specific to human beings and what they produce. Given that human nature does seem to be pragmatically experienced through a sense of freedom within the constraint of striving for the common good, it is possible to identify at least a weak connection between Chomsky's science of language and political commitments. Whether from a cultural perspective one laments his politics to be anarchist instead of Marxist is irrelevant to the hypothesis. What is internal to it is the plausible consequence of FL tending toward political commitment. That a human being might not carry out this innate vocation ought to become a problem

for the social anthropologist to examine, instead of turning her competence toward refuting this tie due to the supposed theoretical complexity of an analytic model. When this is the case, what the anthropologist rejects primarily is philosophy itself.

III

In a now notorious interview given to social anthropologist, Chris Knight, in the periodical *Radical Anthropology* in 2008, Noam Chomsky asserts the following: "I have written occasionally on links between my scientific work and political thinking, but not much, because the links seem to me abstract and speculative. Others believe the links to be closer, and have written more about them (Carlos Otero, James McGilvray, Neil Smith, and others). If I can be convinced that the links are significant, I'll be happy to write about them." (Knight, 2017, p. 23) To this day, Chomsky has not. Were links to effectively exist, it is important to state that at the level of activism and political organization, Chomsky has shown and said time and time again that they do not exist. So it is important to shift the focus of the question. The task thus becomes one to ask whether there are any *latent* theoretical links and associations by implication, that is, non-reflected links, however disputed they might come to be.

Ever since Chomsky's involvement with the resistance to the US invasion of South Vietnam and aggression of the North, he has defended that human nature not only stems from an innate set of properties, but also would be genetically determined (Chomsky 2008). As we have shown, part of what makes human nature different from that of non-human animals is a language phenotype (Chomsky 2016). This innate device generates what he has termed "syntactic structures" in an infinite variety through a process internal to the brain. The result of genetically controlled neural processes shaped into vocalized and written forms is generally recognized as the set of sentence-based human languages. From the earliest expression of his Universal Grammar (UG) theory, Chomsky has held this set to be inclusive to all human languages. Neuroscientists, working in collaboration with him (Moro, 2008, for example), have shown that specific lesions to the brain surfaces usually associated with language use often prevent patients' brains from registering recognition of the semantic strings forming the correlational set of neural pathways linked

to human language. By contrast, when confronted with a set of asyntactic strings, brain activity does not recognize it as intersecting with the human language set. As such, there would seem to be a high degree of regularity between a lesion-free language faculty in the human brain and recognizable language use within a specific community. What Chomsky has called the "human acquisition device" acts at least as a filter between linguistic utterance and its recognition as against non-linguistic noise.

In addition, Chomsky argues that a part of these syntactically-structured productions makes every human a creative being. The sense of creativity here is linked more to the result of the indeterminacy with respect to the unconscious production in the brain of syntactical variations than to the singularity of what could either be called intelligence or genius. In UG, Chomsky defends variability over constancy regarding the potential number of sentence forms. Thus were we to append an axiological concept by which human nature would be recognized, say freedom, the way it comes to have a specific human sense, different to that of non-human animals, would be by showing how it is through an equally physical process of externalized language use that the framework of linguistic institutions like law, religion and the sciences take shape. The upshot would seem to be that human freedom is profoundly linked to the effects of creativity on a broad and ordinary biological scale, instead of primarily emerging as a naturally-given right.

From the beginning, Chomsky's commitment to a natural albeit indirect conception of human nature as framed by the sense of justice has brought him to the brink of semantic paradox or philosophical contradiction. The language faculty is a biological universal, one that is specific to human beings, although social constructs and language forms are multiple and diverse. Critics, starting with Michel Foucault in their famous 1971 debate, have unsuccessfully attempted to draw Chomsky's positions closer to a social ontology. Foucault defended that all movements focused on establishing a revolutionary political state are motivated by power relations, which exclude any naturalistic or biological sense of a human nature. Although Chomsky argued with Foucault on his notion of power, he maintained "there is some sort of absolute basis [...] ultimately residing in fundamental human qualities, in terms of which a 'real' notion of justice is founded." (Foucault-Chomsky, p. 55). Granted that the

language faculty is of a nature to predetermine behavioral possibilities in human beings, can it be claimed that justice is one of its synthetic results?

More recently, contemporary moral theory and psychology have bend the cultural indexation that makes justice solely a feature of human social behavior. By including empathy, caring, and the striving for improvement within a human nature, researchers in these fields have strived to achieve physical evidence to support more naturalistic claims. Indeed, Marcus Raskin, editor of Chomsky's collection of essays in the recent *Masters of Mankind,* can thus add that "We may even speculate that human nature contains a capacity for invariant empathy." (Raskin in Chomsky, 2014, p. 6). Empathy may perhaps bridge the gap between cultural-determiners and generative-structures, unless of course Chomsky maintains that human nature is irreducible to merely one set of traits. The complexity implied by such a claim would certainly not come as a surprise despite how he has tended to avoid complexity theory related models. Still, in the *Masters of Mankind* collection, human nature appears only three times in the whole book, all but once uttered by Chomsky.

The human qualities making up what he refers to as human nature spans from a sense of justice and the common good to unconscious acts of freedom and creativity stemming from the nature of the language capacity. Requested to comment on the Foucault debate a few years later, Chomsky conceded that both he and Foucault agreed that human nature is:

> not as yet within the range of science. Up to the present it has escaped the reach of scientific inquiry; but I believe that in specific domains such as the study of language, we can begin to formulate a specific concept of 'human nature' in its intellectual and cognitive aspects. In any case, *I would not hesitate to consider the faculty of language as part of human nature.* (Ronat, 1979, p. 77; Chomsky, 2006, p. 135).

Given the rigor of Chomsky's philosophy of language, and that claims on the existence of the faculty of language have to be separated from the theory-specific claims laid out in the more recent "minimalist hypothesis" or "biolinguistic program", which itself represents the current form of the theory of Universal Grammar, the task thus becomes to determine the epistemic nature of Chomsky's claim on human nature. As we have stated, Chomsky has not only been reluctant to connect the

political implications of his theory on human nature with UG, he has also downplayed any importance given to this task.

Although Knight might have a point regarding Chomsky's reluctance, he seems to misstate it in a set of anti-theorist claims that in part resuscitates E.P. Thomson's attack on Louis Althusser, though the target now would be the rejection of social and cultural factors in his theoretical undertaking instead of history and historicism (Thompson, 1978). It is one thing to claim that Chomsky's nativist ontology can produce stronger political inferences, yet it is quite another to reject the minimalist hypothesis on the grounds that what structures language is culture above all. In the "Noam Chomsky: Politics or Science?" paper Knights argues that: "Chomsky denies the relevance of social factors even when considering language acquisition by the human child [...] [He] views language acquisition as independent of experience" (Knight, 2018, p. 26-27) That said, Knight seems not to recognize one of the most primary distinctions in Chomsky's theory, that language and communication are not the same thing. There is no doubt social factors contribute to language acquisition, and Chomsky would be the first one to state as much. The distinctiveness of his claim is that the structure of the mother tongue is not acquired on the basis of a socially instituted grammar, although the process of normalization of the infant's newly acquired language affects the content of the language, which might include preferences in sentence composition. Acquisition itself is a development of the "organ" of language. For an organism to grow (i.e. develop) it must have social stimulus (experience), which is why, notwithstanding his political allegations against Chomsky, Knight seems to limit his understanding of language to the origins of its "communicational" functions. Therein, clearly, it is through the interaction with other human beings in social experience that linguistic acquisition, under the best circumstances, pursues its path to perfection.

During the aforementioned interview given to *Radical Anthropology,* when asked what human nature is, Chomsky states: "Like other organisms, humans have a certain genetic endowment [...] that determines what we call their nature." (Knight, 2008, p. 19). This response points to how the theory draws as much from science as from philosophy. In other words, the concept of human nature is not relative to specific human cultures provided its theoretical underpinnings allow for a broad

and current understanding of nature. Seeking philosophical assent, the argument must distinguish between formal and empirical claims. Were cultural expressions, such as symbols to be explained biologically, the nature of theory behind it cannot appeal to local cultural specificities. As the theory must epistemically remain formalist, its model acquires similarity to what in the philosophical context is referred to as ontology. The ontological standpoint is transcultural and transhistorical, criteria that support scientific claims on human biology.

Now, a standard perspective within contemporary philosophy holds that to speak of freedom and human nature in the context of the experimental sciences is incoherent as it disregards the is/ought barrier and commits a category error. In this paper, we have argued that freedom should neither be reduced to an ethical conception per se, let alone to a teleological one. What Chomsky denotes as human nature can be thought of as what the genetic endowment of human beings produces as a series of behavioral possibilities, some of which might be deterministic in some sense, although others might be thoroughly randomly, indeed creatively generated. His theoretical focus is not on consciousness as such, nor on how plurality is generated amongst the world's languages and cultures. In other words, his focus is not on semantic content but on syntactic structure. From the latter, he redefines the notion of semantics on the basis of nativist parameters, drawing the theory as close to a universalist extension as afforded by the criteria of explanatory adequation.

What we, as philosophers, care to argue is that not to see this parameter, as Everett and Knight make a point of doing in the scope of their respective research strategies, amounts to rejecting the purpose of philosophical ontology. Since his debate with Foucault, Chomsky has contended that moral justification and, by extension, the sense of justice is universal amongst human beings, and that this justification eliminates utilitarianism from the options by which to warrant an ethical model of behavior. By contrast, it is true that Chomsky's claim does not fit into Aristotle's model of ontology, in which there no generative operator is to be found. But it does into Alain Badiou's more recent event-based model wherein the set-theoretical axiom of choice operates on the structural basis that parsers do (Madarasz, 2015).

Chomsky's view on anarcho-syndicalism has not changed since his first statements on this topic in the 1960s (Chomsky, 1989). However,

his nativist theory of human nature has become more simplified, that is, more formalist and conceptual with time. In a 1998 statement, he explains why he takes issue with Marxist projections of a just society, preferring instead to main the anarchist norm of "freely organized groups of workers". Evoking technological change, he introduces a complementary field of analysis to be classified next to his critique of how corporate media constructs the political agenda in the US. According to him,

> It is important not to have too restrictive a vision of a future society. The situation may change to make that society impossible or undesirable. Marx's vision was extremely skeletal. What is more important is to react to local circumstances and transform oppressive forces into forces for liberation. Take the automation of production for an example. The same technology that is used to deskill workers and enslave them can be used to eliminate the stupid boring work that nobody wants to do. We already know where we could go from here in transforming capitalism without leading to centralised state control. There is a range of opinion running from anarcho-syndicalists to left Marxists and council Communists that have a decentralised vision of social organisation and planning. Final executive power would be held at the level of workers' councils and could be transferred up to federal organisations. We don't know whether or even how that would work. *These are things that you can only discover by trying.* (Soper, Chomsky, 1998, p. 5)

Thus we ask: Is the variable nature of a future ethically grounded society the reason for which Chomsky maintains a causal gap with the formalist conception of human nature? Explained from a philosophical perspective, the link within Chomsky's nativist theory of language between structure and moral behavior, the two pillars of his theory of human nature, is coherent. Recognizing the philosophical coherence of the model may not satisfy linguists or anthropologists based on their methodological strategies, which is due to their unwillingness to recognize the shifting nature of modal theories on human nature. The latter is made intelligible by ontological evaluation of the scientific claims inferred from a non-localized albeit descriptive model.

To this end, Chomsky's theory of linguistic mechanisms proves to be only one system involved in producing what one might coin the "surface effects of freedom" in human conduct. As the faculty of language is initially developed as an internal system, its modular interaction with the conceptual system may provide a fuller understanding of how free

thought and executed acts occur in contexts of rational deliberation and communication. It would thus seem that human nature is not determined solely by its semantic content, be it primarily conceptual. That is, it can be conceived as a coefficient of variational possibilities innate to the production of syntactic structure. As we have tried to show, Chomsky's science of language is sufficiently revolutionary to warrant a novel conception of human nature through an idea of freedom determined biologically as a thought that is distributed amongst humans. A better understanding of its revolutionary import *on human theoretical endeavors* requires updating the philosophical understanding of ontological structures. On this basis it is possible to assert that revolutions in science have left their indelible mark on broader cultural thought from the dynamic theoretical standpoint ushered in by the formalism of universal generative structures.

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