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JOYCEAN MACHINES DEMOCRACY

The Hybridization Process of Contemporary Liberal Democracy in the Context of AI Technology[1]

ABSTRACT: This paper explores the evolving structure of modern liberal democracy in the context of artificial intelligence (AI) integration, proposing that the emergence of artificial cognitive systems – understood as *quasi*-autonomous agents – has initiated a process of hybridization within democratic communication. These systems, functioning as intermediaries in public discourse, reshape the subject structure of political interaction and challenge traditional models of agency. Drawing on behavioral and functional paradigms in political science, alongside cultural evolution theory and Daniel Dennett's concept of the Joycean machine, the paper develops a cognitive-cultural framework for explaining political behavior. It argues that political actions are increasingly mediated by cognitive artefacts, necessitating a redefinition of political actors and communicative structures. This interdisciplinary approach offers a novel lens for understanding the transformation of liberal democracy in the age of artificial minds and the future of political agency.

Keywords: Joycean machines, AI technologies, political mind, cultural evolution, hybrid liberal democracy

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INTRODUCTION

The development of contemporary technologies in the form of AI is a consequence of several research projects encompassing systemic studies on the mind, consciousness, information theory, and language. This set of problems constitutes the scientific paradigm of contemporary behavior theory, including political behavior theory.[2] Behaviors are explained here by referring to the functioning of cognitive structures at various levels of information processing. This perspective abandons, among other things, the traditional distinction between the external and internal world of the subject, and consequently also suspends the significance of the distinction between perception and thinking. Human cognition modules are considered in the broader process of information processing and knowledge creation. Consequently, behavior is considered as a consequence of these processes, and causal relationships are determined by indicating informational dependencies.

Liberal democracy, from this perspective, is a specific informational environment. It consists of a complex of ideas (cultural artifacts) constructing the institutional order. With this assumption, it can be analyzed as a knowledge structure determining political behaviors to some extent. The relationships between knowledge and behaviors are complex in the sense that they are characterized by feedback loops that determine the dynamics of the entire system. Thus, from a theoretical point of view, the state of contemporary liberal democracy is a derivative of multidimensional dependency relationships between different types of technologies determining the quality and course of communication processes. The explanation process of these dependencies must include both their characteristics, i.e., determining the differences and similarities that determine their functioning and possible interactions between them. It is assumed that, from the viewpoint of liberal democracy, the problem lies in the extent of the divergence between the operation of technologies – resulting from their nature (programmed function or goals) – and the hypothetical aim of democratic institutions, which is a functional public sphere that determines the quality of the entire system.

We apply the category of technology here in the sense given by Herbert Simon's theory, according to which technology is a type of artificial system of human society.[3] This allows for maintaining semantic coherence within the presented analysis. Moreover, Simon's theory departs from the naive, materialistic approach to social and political reality, as it consistently adheres to the principle of the independence of information and knowledge from its carrier. This rule is complementary to the functional approach (interpretation) of reality expressed in the principle of the possibility of realising the same functions on different carriers. In both cases, we are dealing with information processing, learning, and knowledge creation processes, which are captured by the metaphor of virtual

[2] D.C. Krakauer, *The Complex World. An Introduction to the Foundations of Compexity Science*, Santa Fe 2024, pp. 20-29.

[3] H. Simon, *The Science of the Artificial*, Cambridge 1996; H. Farrell, A. Gopnik, C. Shallzi, J. Evans, "Large AI Models Are Cultural and Social Technologies," *Science*, vol. 387, no. 6739 (2025), pp. 1153-1156.

machines. The human mind, from this point of view, is just one instance of this type of machine, which Daniel Dennett called a *Joycean machine* due to its cultural extensions.[4]

Technology is thus understood here as an artificial system created and maintained by human societies, which enables information processing, and in some cases allows for interactions and coordination on large social scales. Technology is also, in this sense, a knowledge structure that enables information processing at this level.[5] The relative stability of the structure allows for such transformations. An example of such technology/artifact is liberal democracy, which is one of the solutions to the necessity of coordinating human actions, without which no political system could exist. The communication process can be analogously realized in various ways, which means that there is a way of organizing it that is complementary to the idea of liberal democracy. This does not mean that the structure of political (public) communication can ignore the problem of causal relationships between the social (economic) structure and the level of political institutions. Social networks create their own communication systems resulting from the division of labor and other social functions and dependencies. In each of these cases, however, we are still dealing with phenomena that are consequences of the distribution of information and knowledge, which, although not publicly available, constitute the social system analogously to the political system. Social media are a paradigmatic case of social technology shaping public communication.[6] The problem is that the functions or goals realized by this technology are divergent from the functions attributed to the public sphere. The next level of development of information technologies, i.e., the level of AI and AGI (hypothetical), has generated problems resulting from the increasing level of autonomy of these technologies. Consequently, we can discuss the possibility of the existence of artificial minds (artificial agents), whose characteristics also include the ability to act independently. Such a level of subjectivity, even if currently purely hypothetical, has also posed a completely new challenge to our understanding of the political world. The second aspect of this situation is contemporary research on the human mind within cognitive sciences and theories attempting to explain the dependencies between it and information processing processes, including learning processes. Only by explaining the differences and similarities between AI and the human mind can we understand the opportunities and threats to liberal democracy resulting from the development of these technologies, including possibly redesigning the institutional order to accommodate this change.[7]

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4 D.C. Dennett, *Consciousness Explained*, London 1991, p. 214.

5 Ch. Marletto, *The Science of Can and Can't, A Physicist's Journey Through the Land of Counterfactuals*, Dublin 2021, p. 139.

6 D. Sumpter, *Outnumbered. From Facebook and Google to Fake News and Filter-bubbles- The Algorithms That Control Our Lives*, Bloomsbury 2018; M. Brewer, *Political Microtargeting – on the Possibility of a Polish Version of the American Cambridge Analytica Scandal from 2016*, in: „Studia Politologiczne", vol 72/2024.

7 See i.e. D.C. Dennett, "The Problem with Counterfeit People," *The Atlantic*, 16 May 2023, 16 May, at https://www.theatlantic.com/technology/archive/2023/05/problem-counterfeit-people/674075/, 5 August 2025.

AUTONOMY AND EPISTEMIC ABILITIES OF PARTICIPATING AGENTS

From the perspective of epistemology, liberal democracy is founded on the epistemic abilities of individuals, usually defined as the ability to make rational decisions. The processes preceding decision-making can be characterized differently depending on the assumptions about human cognitive abilities, which historically shaped different schools of thought about epistemology itself. This meta-level of analysis is, of course, beyond the cognitive horizon of political actors, not only due to individual differences but primarily due to the contextual nature of decisions resulting from participation in public life. Thus, the question arises whether changing the theoretical perspective on both liberal democracy and political actors can bring us closer to understanding the processes that actually occur in contemporary societies transformed by AI. Such a perspective is the perspective of cultural evolution, which, when applied to political systems, allows them to be analyzed as cases of complex system evolution.

However, the fundamental reason why the application of cultural evolution theory in political science brings a significant change in theoretical perspective, and consequently in research, is its explanatory scope. Within this framework, we can seek explanations regarding the relationships between individual minds, social relationships, culture, and classically understood technology.[8] They are not heterogeneous phenomena with different ontological (qualitative) characteristics but can be interpreted as aspects of cognitive processes of different scales. The theory of cultural evolution is, in essence, derived from two previously developed sub-disciplines: the general theory of information as a computational process (the universal theory of information), which became the foundation for research into AI, and the theory of information in biological and cultural systems (semantics). Cultural evolution recognizes memes or ideas as the fundamental carriers of information.

The level applicable to the analysis of social and political systems is the level of semantic information, from which we can analyze the mind and its relationships with institutional orders. Semantic information corresponds to some extent to the meaningful content of language, and from the perceptual side (perception of reality) to the phenomenal world. From the perspective of contemporary discussions about the status of AI in the form of LLMs, this is one of the most important distinctions, as it concerns the type and function of the environment in which cognitive processes occur. Multimodular perception processes in the case of the human mind form the basis for functioning not only in the physical and biological environment but also in the social environment. They also form the basis for creating new representations of the world and new conceptual systems represented at the language level.

[8] K. McCaffree, *Cultural Evolution. The Empirical and Theoretical Landscape*, New York 2022; C. Heyes, *Cognitive Gadgets. The Cultural Evolution of Thinking*, Cambridge 2018.

Language, in the context of cultural evolution, is the most important framework from which we can explore the problems of interest here.[9] Basic epistemological categories are associated with language as a general cognitive structure, whose large-scale violation is correlated with the crisis of liberal democracy. The category of truth is the main subject of disputes here, but it is not entirely clear which understanding of it we are discussing when proclaiming, for example, the advent of the post-truth era.[10] Truth as a feature of logical judgments (propositions) is not threatened by social or political changes. Truth as a value in the sense of axiology, however, is not an obvious choice when it comes to political action goals. A political system that would require having true beliefs, i.e., fulfilling the condition of logical truth, would obviously be an authoritarian regime with a closed knowledge structure. In the mildest version, we can call it an educational system of society with a ruling class of teachers or a ministry of truth (we can easily find such types of political systems in history), and in the most radical version, it is a totalitarian political system. The pursuit of truth is such a general postulate that in the political context it can be used for any purpose. The analogy with science is misleading in this case, as here the above postulate is specified by methodology, which is historically variable and subject to constant questioning.

Changing the interpretive framework of epistemological problems resulting from the application of cultural evolution theory allows for a better insight into both the issue of truth in politics and the epistemological foundations of political participation. Language, along with the system of meanings, undergoes dynamics resulting from its relationships with action or behavior as such. From the complex structure of relationships between truth and falsehood and possible ways of verifying statements about reality, the opposition between truth and lies, in its various forms, becomes more important. We will see the multidimensionality of this problem by adopting the following assumptions resulting from cultural evolution theory. Language is a system functioning in a richer information environment than itself, which in classical terminology we call culture. Culture in this context is defined as available representations and ways of representation referring to something that remains beyond them. In terminology that combines cultural evolution theory with the phenomenological approach to the social world, we can call this feature of representations intentionality. In a particular case, it can be reality, although as can easily be guessed, it is also relativized to its representations, and the representations we consider valuable are called knowledge. The next assumption concerns possible minds, whose existence in the context of representations we assume, meaning they are functional structures whose architecture we can analyze without referring to subjective experience. This is a strategy for explaining the mind undertaken from an impersonal perspective, assuming that the mind is constructible, and from the perspective of empirical sciences, reconstructible.

[9] D.C. Dennett, *Consciousness Explained*..., p. 199.

[10] J. Farkas, J. Schou, Post-Truth, *Fake News and Democracy. Mapping the Politics of Falsehood*, New York 2020.

Language in such a defined environment fulfills functions or is simply a type of social technology functioning between individual minds.[11] The individual mind is interpreted here as a unique point of view designating a local cognitive process or an entity capable of taking actions (agent). This relationship can be further defined by referring to the category of imagination, understood as a particular function of the mind, which can be extended through additional instrumentation of cultural artifacts. Liberal democracy, for example, is a complex of constructive ideas concerning a certain institutional order. The extensibility of minds as their structural feature is possible because minds are not closed structures.

The idea of the extended mind as a structure, which from an internal perspective possesses its own center (a narrative center, as Daniel Dennett put it), but lacks an external boundary due to the fact that both information and the means of processing it can be subject to environmental changes, forms the theoretical basis for such a claim.[12] From this perspective, the methodological dispute dividing the social sciences into individualists and holists arises from strong ontological assumptions concerning the existence of individual and communal subjects. These assumptions lose significance in the context of information processing and cognitive processes as overarching patterns (functional structures), which, in systemic interpretation, operate according to the rule of feedback loops.

Linguistic structures are a necessary element to understand the construction of the extended mind as a functional whole, within which we can analyze the functioning of minds understood as units of action. In the context of the problem of restructuring liberal democracy, minds are subjects (agents), which assumption results from the characteristics of intentional systems. Potential differences between the structure of the human mind and AI technology will reveal what this restructuring may consist of and what level it will not exceed. This limitation results from differences in cognitive architecture, which determines the possibilities of action, including its evaluation in terms of known epistemic categories such as truth and falsehood. From the theoretical perspective presented here, intentionality is a feature that allows understanding the behavior of a complex system through the analysis of goals that the system realizes.[13] Goals, in turn, are clues for the reconstruction of the system of meanings in which this realization occurs. At a general level, we can say that minds as intentional structures operate in a world of semantic information, which appears as a consequence of the ability to represent the world. Hence, in a certain shortcut, the term intentional means situations in which the state of the system is about something or cares about something.

[11] D. Dor, *The Instruction of Imagination. Language as a Social Communication Technology*, Oxford–New York 2015.

[12] By analogy to the central *meaner* or to the central *controller*. See D.C. Dennett, *Consciousness Explained*..., p. 244.

[13] D.C. Dennett, *The Intentional Stance*, Cambridge 1987.

These assumptions do not resolve the dispute about the primary or secondary nature of intentionality.[14] The second possibility simply means that a given cognitive system is designed in such a way that it only appears to us to be about something. From the perspective of folk psychology (that is, the phenomenological mind operating from a first-person viewpoint) as described at the phenomenological level, this distinction does not have significant practical importance. In a way, this is the core issue with any information medium. Regardless of whether we are analyzing fictions created in books, magazines, or social media, they all share this feature – that is, they are about something which does not have to correspond to the actual state of affairs. In the conventional sense, we assume that we can always intuitively point out the differences between fiction and the real world, but in reality, this is not so obvious, because we do not possess appropriate tools that would allow us to verify this difference. From an epistemological perspective, this is a problem examined in the context of distinguishing between truth and falsehood. But formal logic is not a good guide to the world of political interactions. Let us leave the problem of truth in its classical sense for now and look at the more important distinction from the point of view of political practice between truth and lies. Of course, we can also lie in relation to the external world (conventionally understood sphere of facts), but in politics, the goals of action that do not belong to it are more important. The sphere of axiology is, in a sense, a paradigmatic case of purely intentional systems, meaning it has no other ontological basis besides the sphere of interactions between persons.

Epistemic values are no exception here, meaning they are directly dependent on the attitude of the subject deciding on the importance of a given knowledge structure. This requires analysis at the metacognitive level. In the context of liberal democracy and all analyses or pseudo-analyses about the post-truth era, the problem is not that there is less truth in the social and political world (such a statement is simply nonsensical), but that we have abandoned the formation of a certain epistemic attitude in which the distinction between truth/falsehood plays an important role.[15] The banality of falsehood is a consequence of cognitive abandonment and cannot be replaced by truth, which is always problematic. Similarly, as in the case of the constitutive distinction for ethics between good and evil, we will not avoid problems here because knowledge is acquired under conditions of uncertainty, meaning we always make mistakes. Moreover, only on this basis do we achieve epistemic success because the error is information that we have adopted inadequate assumptions in relation to the situation. In the paradigmatic case, every situation is problematic because we do not have its full picture, in other words, we do not have complete information, hence in social sciences, we have accepted the assertion of partial rationality of acting subjects.

In the case of the opposition between truth and falsehood, the basic element of the situation is the problem of interactions aimed at achieving different goals. Representations of reality, which are necessary for navigating the physical world (in simplification

[14] J.R. Searle, *Mind. A Brief Introduction*, Oxford 2004, p. 165.

[15] G. Gigerenzer, *Zdrowy umysł w sieci algorytmów*, trans. T. Chawziuk, Kraków 2024, p. 295.

perception), must be supplemented by representations of plans or strategies of other minds coming into contact with each other.[16] Such categories from folk psychology as sincerity or good intentions do not fully reflect the complexity of the states of actors with a strategic attitude. Moreover, it is precisely the design of artificial minds, potentially capable of realizing different goals, that has revealed to us the cognitive aspect of human actions in all their complexity.[17] Both values and norms of ethics, which we consider socially given, and hence not requiring direct or indirect cognitive attention, have their validity due to the goals that are realized at the level of social interactions. This includes, for example, the basic social order translating into political order.

The existence of political order is linked to the problem of interpreting and implementing the idea of justice – a classic issue from the beginnings of philosophy to the modern welfare state. From the perspective of social and political practice, the idea of justice defines the principles of ethical and legal responsibility, that is, the rules regulating individual agency. Any potential extension of the set of entities interacting with one another generates the problem of holding actors to account for breaking established rules of interaction. From this standpoint, the emergence of a new type of autonomous agent requires the empirical political sciences to distinguish between factuality and normativity.

Normativity ceases to be understood simply as a blunt social fact and instead becomes a kind of project, which we can rationally discuss within the framework of science. A certain novelty from the point of view of humanities is certainly the research fact that norms or more broadly axiology can be the subject of research of inherently engineering sciences.[18] However, the success of such research is related to answering purely explanatory (theoretical) questions concerning causal relationships between the architecture of minds and behavior. The key in this context is the answer to the question of how much the individual mind is or can be a self-projecting unit. In this case, it is about posing the problem of the scope of autonomy of the classically understood subject and its consequences for social and political arrangements of a higher order in relation to individual behaviors. Here we can seek theoretical solutions for the coordination (alignment) of the realization of political goals by minds regardless of their ontological (physical) nature. At this stage, we can of course only analyze hypothetical solutions, but each of them can take into account a different scale of autonomy between minds.

[16] P. Gärdenfors, *Jak Homo stał się sapiens. O ewolucji myślenia*, trans. T. Pańkowski, Warszawa 2010; F. Egan, *Deflating Mental Representation*, Cambridge2025, p. 7.

[17] See E.S. Spelke, K.D., Kinzler, "Core Knowledge," *Developmental Science*, vol. 10, no. 1 (2007, p. 90.

[18] R. Ling, "Artificial Intelligence, Robotics, and the Evolution of Social Sciences," in L. Fortunati, A. Edwards (eds), *The De Gruyter Handbook of Robots in Society and Culture*, Berlin 2024, pp. 203-220.

THE PROCESS OF HYBRIDIZATION OF LIBERAL DEMOCRACY

The idea of hybrid solutions is not a proposal to solve a purely hypothetical problem related to liberal democracy. It represents the current *status quo*, where human minds extend their cognitive capabilities by delegating certain types of cognitive processes to AI tools. The extent to which we can continue this process is a matter not of our discretion but of further structural discoveries or even those related to explanatory structures of contemporary science. This particularly pertains to research fields such as the nature of consciousness (explanatory theory) or reflective thinking, including the problem of freedom of action, known in social sciences as the problem of agency.[19] From the perspective of political behavior theory, the above *status quo* remains poorly understood, meaning that at the level of observable phenomena, we know that AI tools influence election outcomes, but the level of understanding of the relationships between informational processes and behavior at the level of civil society seems far from satisfactory.

There are many reasons for this state of affairs, which, if they are to be subject to empirical research, must be defined within a satisfactory conceptual framework. The perspective of minds interpreted as cultural artifacts is a theory that assumes the existence of a common basis for the classically understood sphere of institutions and minds in the form of cognitive processes, which are assumed to have their basis in computational processes. The theoretical framework for explaining these relationships is provided by the developing theory of cultural evolution. Unlike the perspective of evolutionary psychology on the human mind or more broadly from any purely naturalistic approach to the phenomenon of the mind, the theory of cultural evolution assumes that language and other forms of world representation constitute a significant complement to the human mind and consciousness.[20] Note that such an approach to the problem of the relationship between the mind and culture refers us to analogies with AI models like LLM. Regardless of the assessment of the scope or level of intelligence of these models, they are based on procedural language processing.[21] Language is thus treated as a type of software that can extend cognitive capabilities. Using the terminology of Daniel Dennett, we can say that humans are Gregorian beings, meaning those capable of using abstract tools for cognitive purposes.[22] Culture as a collection of ideas is a source of intellectual technologies, the best example of which is language itself.

Understanding the significance of this cognitive leap in human evolution is a necessary condition for constructing a new model of political behavior, in which minds are not isolated entities but agents participating in various ranges in cultural evolution. It allows for the explanation of causal relationships between minds interpreted at a lower level as biological or computational with the cultural layer represented by language.

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19 D.C. Dennett, G.D. Caruso, *Just Deserts. Debating Free Will*, Cambridge 2021.

20 C. Heyes, *Cognitive Gadgets*..., p. 11.

21 M. Levin., "Artificial Intelligences. A Bridge Toward Diverse Intelligence and Humanity's Future," *Advanced Intelligence Systems*, vol. 7, no. 10 (2025), 2401034.

22 D.C. Dennett, *Kinds of Minds. Toward An Understanding of Consciousness*, New York 1996, p. 112.

Even at the model level, we can observe that the behaviors of political actors are entangled in multidimensional relationships, whose complexity is also derivative of the tools or cognitive gadgets used in understanding their own situation. In the context of problems related to the evolution of AI, we can notice that functional relationships already exist between existing systems and the human mind. Such functional relationships are not, however, as new, or revolutionary if we consider them from the perspective of the Joycean machine, i.e., the cultural mind. Essentially, constructing AI is a historical opportunity to understand the causal relationship between the biological (individual) mind and external carriers of information and knowledge. We are able to seize this opportunity within science if we understand the cultural processes in which we have participated for millennia without understanding the nature of this process.

What has thus eluded us in understanding the cognitive architecture of the mind or what is the cause of such a limitation of the epistemological horizon that we consequently could not recognize it? From a general perspective, the cause of this state of affairs is the phenomenological approach to both the mind and human consciousness. The phenomenological perspective is inherently a first-person perspective, in which scientific study of the mind is a methodological impossibility. It is therefore necessary to transition to a third-person perspective, which Dennett called heterophenomenology.[23] Only here can we use experimental instruments that form the basis for testing hypotheses and theories. One such hypothesis is the existence of what we might call the unconsciousness of higher cognitive processes. In an approximate explanation, we cannot discover through introspection to what extent our perception and understanding of the world is determined by language. In other words, analogous to the impossibility of discovering through introspection the relationships between the brain and consciousness, we also cannot recognize in this way the relationships between consciousness and language. Language is a type of software that enables cognitive activities but does not directly represent itself in them. Cartesian transparency of the mind to itself is one of our systemic illusions. Understanding language requires understanding linguistics, i.e., understanding language as a certain social technology with many functions. Understanding how language shapes our worldview requires comparative studies, similarly to the initial understanding of the influence of culture on the worldview requires comparisons, i.e., adopting an abstract point of view of science.

Language in this structure is an intermediary between imagination or the ability to represent reality and the reality to which we refer at a given moment. The functionality of this structure is analogous to the problems that we must consider in such a version of the extended mind. The most important of these is the problem of reliability of representation, especially the reliability of representations analyzed in real-time.[24] From the perspective of action pragmatics, they determine the direction that political decisions take, and consequently, collective decisions determine the state of politics. Every action in contemporary liberal democracy is, however, embedded in broader in-

[23] D.C. Dennett, *Consciousness Explained*..., p. 72.

[24] A. Clark, D.J. Chalmers, "The Extended Mind," *Analysis*, vol. 58, no. 1 (1998), pp. 7-19.

stitutional frameworks (the framing problem is one of the most important problems in contemporary democracy.)[25] Liberal democracy from every point of view is a highly abstract construct (cognitive gadget) and very difficult to visualize, which we easily forget. If we look at this problem from the perspective of individual imagination, we essentially reach the limit of impossibility. Hence the question arises of how the average actor participating in such a system can understand the rules of the political game in such abstract institutional frameworks.

A possible solution to this problem lies in the structures of human experience, which form the basis for generating patterns that we call representations. As we said, language as a type of social technology only mediates at the communicative level between the mind and reality. It is a type of instruction or algorithm that activates sequences of signs representing experience but does not perceive experience. The latter is dependent on individual histories (path dependence), which means it can be shaped in conditions that are considered optimal.

Liberal democracy can be represented as a set of rules that constitute the conditions for a certain type of actions. From a cognitive perspective, it is a set of affordances through which such behaviors can be realized. However, possibilities should not be confused with the description of the political system as a certain factual state. The factual state of democracy is represented only in historical records and cannot form the basis for explaining and understanding what it is at the level of its current dynamics. Histories, including myths or other types of fiction, can only serve as a source of understanding or even justification for certain types of rules, but do not determine adherence to these rules. Tradition, like institutions, are only abstract representations of collective actions over long periods of time. The problem of institutional knowledge as the competence of political actors considered as a set of rules refers us to other analogies than historical ones (the factual aspect of politics). A rule denotes a type of practical knowledge that makes sense only from the perspective of the subject and its ability to achieve set goals. A rule is thus a type of instruction, i.e., an algorithm that realizes a previously defined function.

Let us now return to the problem of the autonomy of agents (minds of any type) and look at it from the perspective of the possible source of realized functions. Here we have at least two possibilities resulting from the scope of their autonomy. The first possibility is a situation in which the algorithm performs a task programmed by an external unit. In this situation, we can also consider variants in which the freedom of task realization concerns the way it is realized or not. From the perspective of possible human interactions with AI, the second type of autonomy of the mind as a unit that sets its own goals is more important. Of course, the goals can be possible solutions to a given problem or the choice of the problem itself, which can only be identified from the perspective of the given mind and its competencies. Such dependencies between minds already exist in current autocratic bureaucratic systems, so the problem is not new as a phenomenon.

[25] G. Lakoff, *The Political Mind*, New York 2008, p. 133.

In the context of technology, however, it is a difference of historical significance and relates to the problem of possible evolution of what we have so far called a tool. Here arises the distinction between AI and AGI or super-intelligence.[26] Despite the novelty and hypothetical nature of the phenomenon itself, note that the problem is not so new, and our interactions with what we call a tool are not as autonomous as we would like to assume. Take for example this aspect of culture, which is most important from the perspective of our relations with LLM, i.e., language. Our dependence on language at the functional level is simultaneously the cause of the cognitive leap that occurred long ago.[27] Language can be considered a type of sophisticated cognitive tool, but it is also a system that evolves beyond our control. The concept of language games well reflects this aspect of our cultural reality. We can play various types of languages, but we cannot go beyond language if we understand it as a meta-algorithm evolving as a result of our games. Moreover, if we assume, as proposed in the theory of cultural evolution, that language as a carrier of information contains units such as memes, then consequently we recognize that we are dealing with autonomous information evolution. Memes, like genes, follow their own survival algorithm, i.e., they are driven by their own interests.[28] As players of a typical language game, we *de facto* recognize the autonomy of the rules of the game, but if we assume the existence of non-human players' interests, we admit that already at the level of natural language we are not any central (controlling everything) subject. From a theoretical point of view, we are an extended mind, or a Joycean machine remaining in complex functional relationships with its own informational environment. The political mind of course, no exception to this rule.

Knowledge in the form of rules is only one aspect of institutional knowledge, but probably the most important one. Institutions have their symbolic dimension, which in turn fulfills unifying functions at the social level, but symbols do not solve any problems.[29] We can describe them as detached representations of collective identities, which, by fulfilling unifying functions, also reinforce conflicts or make them much more irrational. As memes, they represent their own interests, not necessarily aligned with actually existing societies. Liberal democracy is a special case of an institution where issues concerning collective identities are problematic by definition. This means that the rules constituting liberal democracy are not consistent with the collective type of identity if we define it using such general concepts as 'Polishness', 'Europeanness', or even 'democracity'. These concepts correspond only to illusory features that align with the emotional states of individuals.

The institutional architecture of liberal democracy at the symbolic level remains in rather difficult-to-identify causal relationships with the set of rules that are constitutive

[26] N. Bostrom, "The Superinteligent Will: Motivation and Instrumental Rationality in Advanced Artificial Agents," *Minds and Machines*, vol. 22 (2012), pp. 71-85.

[27] D.C. Dennett, *Od bakterii do Bacha. O ewolucji umysłów*, trans. K. Bielecka, M. Miłkowski, Kraków 2017.

[28] K. Mccaffree, *Cultural Evolution*..., p. 152.

[29] Knowledge about rules can be essential in complex systems, see D.C. Krakauer, *The Complex World*..., p. 17.

of the way of life we call a democratic society. Like any symbolic reality, it eludes purely pragmatic interpretation. The values defining this way of life easily undergo a process of reification, which in significant respects is analogous to the process of creating social and historical facts. As we noted earlier, interpretations of the world that give it a *quasi*-objective character can also be easily reduced to an epistemology using a binary value system. Hence, we speak of true freedom, true democracy, and even true freedom of speech. From a pragmatic point of view or from the point of view of the applicability of certain types of rules, this is a set of empty statements. Rules require application, meaning we can interpret them as an element of a process whose outcome at the level of representation is a specific institutional order. Therefore, what matters is whether and to what extent people follow certain rules. Let us take the basic epistemic value, which is truth, as an example. It is only a general regulatory idea in relation to which we can discuss specific ways (in science, methods) of behavior. Truth can be the result of an infinite process of exploring the world from a practical point of view. Within an individual mind, this process can be realized at the level of reflective consciousness extended by available tools.

SUMMARY: THE RULE OF FREEDOM OF SPEECH

The political problem in this context is in what environment of rules or principles we can realize such behaviors. In liberal democracy, it is, of course, the principle of freedom of speech. From an epistemological point of view, it is a rule that does not determine the truth or correctness of any statement or opinion. The rule of freedom of speech, however, defines the relationships between parties (agents of different types) participating in cognitive and communicative processes. From the point of view of knowledge and its possible justifications, freedom of speech is a meta-rule resulting from the epistemological critique of the concept of knowledge based on authority. According to this concept, the truth or value of knowledge is not determined by its origin, i.e., the source, but by the possibility of criticism and testing of knowledge. Note that from the point of view of the AI problem, this is an old problem returning in a new context. It does not matter whether the presumed source of knowledge is a political, religious authority, or a distinguished aspect of the human cognitive system such as the senses (the ability to observe in particular) or reason.[30] Knowledge at the hypothetical level can come from any source, and what matters in every epistemological aspect is the necessity of its critical testing. Hence, the only rational aspect of the dispute over the role of AI and any other type of mind (any system with cognitive functions) is the problem of whether and to what extent it is capable of testing knowledge. If we assumed that current systems have such an ability, we would consequently recognize that they are partners in the processes of understanding the world. We should therefore interpret liberal democracy as a kind of affordance that emerged as a result of a historical process, creating

[30] See Ch. Marletto, *The Science of Can*..., p. 14.

completely new cognitive possibilities. The concept of possibilities is key here because note that freedom of speech is not a trivial fact, but information embedded in the institutional order that minds are free entities seeking better explanations of the world.

The problem that the discussion around the impact of AI technology on liberal democracy should focus on is the classic problem of the distribution of power or means of control and their legitimacy. We can note that if there is a rational reason why AI is perceived as a threat to liberal democracy, it is the fact that, contrary to the dominant belief, not every currently existing democracy has satisfactorily solved this problem. Paraphrasing, the relationships between power and individual freedom are constitutive for every type of regime. If some type of authoritarian or autocratic system could compete with liberal democracy, it would only be due to the knowledge implemented in that system. From the point of view of knowledge creation processes, the assumption that there is knowledge adequate to all possible problems is false. Such epistemological conservatism is, in fact, a doctrine which, on an ideological level, refers to the category of truth, representing (only by assumption) a self-evident state of affairs. It serves the function of maintaining a particular configuration of power or social support and, in this sense, represents only a temporary arrangement of interests which, by its nature, is hegemonic – that is, limiting freedom. On the level of epistemology, freedom is realized through the possibility of criticism, which is a constitutive rule for liberal democracy. If culture, on a symbolic level, is a representation of processes for solving problems existing within various scales of social systems, then depriving it of a modification mechanism in the form of criticism must inevitably lead to stagnation. And without sufficiently effective problem-solving, any system will break down, as it loses the ability to adapt that stems from the updating of knowledge. From this perspective, knowledge is the most valuable social and political resource, but the very process of its creation is, by its nature, essentially infinite.

If liberal democracy is a type of political system simulating the process of creating the most valuable representations of the world, then AI is not a threat to it but a tool or participant that can accelerate this process. Creativity, understood as the ability to make surprising leaps (scientific revolutions), seems to be, so far, exclusively a feature of human minds. However, the theory of cultural evolution also changes our perspective on this feature of the human mind. Culture is an extension of the human mind because, as a process of understanding the world, it is to some extent independent of individual minds. The organization of social and political systems should take this dependence into account because it is in culture and its transformations that new possibilities lie. Thinking and understanding are multi-layered evolutionary processes not limited to a single mind, and institutional political orders can strengthen or weaken this process. Using the existence of liberal democracy as a structure that, from a historical perspective, is a contingent convergence, is an opportunity to realize a knowledge society, and as with any type of social technology with multiple functions, the effect depends on its users.[31] The thesis about the influence of random factors on individual institutional

[31] B. Klass, *Fluke. Chance, Chaos, and Why Everything We Do Matters*, New York 2024.

orders emphasizes their dependence on non-linear causal relationships, which should also prompt political science to address the problem of the dependence of liberal democracy on the regularities studied in complexity science.

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