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Attitudes Toward Artificial Intelligence and Psychological Well-Being in Adults: The Mediating Role of Psychological Distress

Abstract

Background. Artificial intelligence is increasingly embedded in everyday life, making individual differences in attitudes toward AI psychologically consequential for mental health. Prior work suggests that technology-related appraisals may be linked to distress reactions, which in turn correspond to broader indicators of well-being. **Aim**. The aim of this study was to examine whether attitudes toward artificial intelligence (ATTARI) are associated with psychological well-being (SDP) in adults and whether this association is explained indirectly by psychological distress, operationalized as depressive symptoms (DEP) and anxiety symptoms (LEK). **Method.** The sample comprised 227 adults who completed measures of ATTARI, DEP, LEK, and SDP; analyses included descriptive statistics, Pearson correlations, and simple mediation models estimated with PROCESS v5.0 (Model 4) using HC3 standard errors and 5,000 percentile bootstrap samples. **Key results**. More positive AI attitudes were correlated with lower depressive and anxiety symptoms, whereas the bivariate association between ATTARI and well-being was small and non-significant; distress indicators were strongly and negatively associated with well-being. Mediation analyses showed significant indirect effects of ATTARI on SDP via lower depressive symptoms and via lower anxiety symptoms, with non-significant direct effects, indicating an indirect-only pattern. **Conclusion**. These findings suggest that AI attitudes relate to psychological well-being primarily through reduced psychological distress, highlighting the importance of incorporating distress mechanisms when modelling psychological adaptation to AI-rich environments.

Keywords: **attitudes toward artificial intelligence; psychological distress; depressive symptoms; anxiety symptoms; psychological well-being; mediation analysis**

1. INTRODUCTION

Artificial intelligence has rapidly moved from a specialized technology to an everyday socio-technical environment that shapes learning, work, and decision-making. In psychological terms, attitudes toward artificial intelligence (ATTARI) may be understood as relatively stable evaluative tendencies toward AI systems, encompassing beliefs about usefulness, trustworthiness, and personal comfort in contact with AI-driven tools. Conceptually, ATTARI overlaps with broader readiness-for-technology orientations, as individuals differ in their propensity to approach or avoid technological innovations, to perceive them as enabling versus burdensome, and to anticipate benefits or threats (Parasuraman, Colby, 2015: 59–74). Empirical work validating general AI-attitude measures supports the view that ATTARI can be operationalized as a coherent, measurable construct with meaningful psychosocial correlates (Schepman, Rodway, 2020: 100014). At the same time, negative AI-related appraisals may manifest as anxiety specifically anchored in AI contexts, including uncertainty, loss-of-control expectations, and threat anticipation. This conceptualization is consistent with recent scale-development work on artificial intelligence anxiety, which highlights affective responses that may shape behaviour and adaptation in AI-mediated settings (Wang, Wang, 2022: 619–634).

The present study focuses on psychological distress and psychological well-being as distinct yet systematically related domains of mental health. Psychological distress is conceptualized here as the severity of internalizing symptomatology reflected in depressive symptoms (DEP) and anxiety symptoms (LEK). While diagnostic manuals define depressive and anxiety disorders in categorical terms (American Psychiatric Association, 2013), symptom dimensions are also commonly analysed continuously in nonclinical samples to capture meaningful variability in negative affect and impairment-relevant experiences. The measurement tradition supporting this approach is reflected in extensive validation work on screening tools such as the Hospital Anxiety and Depression Scale, including Polish adaptations confirming reliable assessment of anxiety- and depression-related symptomatology across clinical and nonclinical contexts (Watrowski, Rohde, 2014: 517–524; Wichowicz, Wieczorek, 2011: 505–514). Psychological well-being (SDP) is conceptualized as positive functioning rather than merely the absence of symptoms. Within the eudaimonic tradition, well-being includes dimensions such as purpose, autonomy, personal growth, and positive relations, which are theoretically separable from distress even though they are often inversely associated (Ryff, 2014: 10–28). Complementarily, the WHO-5 well-being framework captures a concise indicator of subjective well-being and has been repeatedly shown to covary negatively with depressive symptomatology while retaining interpretive value as an index of positive mental health (Topp, Østergaard, Søndergaard, Bech, 2015: 167–176).

A mechanism-based approach is required to explain why attitudes toward AI may relate to well-being primarily through distress processes. Technostress theory provides a strong conceptual foundation for this expectation: technological environments can generate strain when they are experienced as complex, invasive, or rapidly changing, and these stress reactions may generalize into broader psychological functioning (Ayyagari, Grover, Purvis, 2011: 831–858). In this perspective, ATTARI

can be treated as an appraisal-relevant disposition that colours how AI is perceived and, consequently, how much distress is experienced in AI-adjacent contexts. When attitudes are more positive and approach-oriented, lower distress may follow; when attitudes are more negative or anxiety-laden, distress may be amplified. Because well-being is a broader outcome shaped by multiple determinants, it is plausible that the ATTARI-well-being association is indirect, operating via reductions in DEP and LEK rather than through a direct attitudinal pathway.

For this reason, the explanatory framework is set in a simple mediation model (PROCESS Model 4), which allows the indirect association between ATTARI and SDP to be estimated through a single mediator at a time (Hayes, 2013). Mediation analysis is particularly suitable when theoretical reasoning suggests an intervening psychological process linking an antecedent to an outcome, even when the direct association is small or inconsistent. In the present context, DEP and LEK are treated as theoretically proximal mechanisms through which AI attitudes may be translated into differences in psychological well-being. Despite rapidly expanding research on AI-related attitudes and technology readiness, comparatively fewer studies have tested such mechanism-based pathways that integrate AI attitudes with distress indicators and well-being within a single explanatory logic. Thus, the present study contributes by linking an attitudinal construct specific to AI with a clinically meaningful distress domain and a positive mental health outcome, while explicitly evaluating indirect effects.

The aim of the study was to examine whether attitudes toward artificial intelligence (ATTARI) are associated with psychological well-being (SDP) and whether this association is accounted for indirectly through psychological distress, operationalized as depressive symptoms (DEP) and anxiety symptoms (LEK). The following hypotheses were specified: H1: ATTARI is negatively associated with DEP and LEK and not significantly associated with SDP. H2: DEP is positively associated with LEK, negatively associated with SDP, and negatively associated with ATTARI. H3: LEK is positively associated with DEP, negatively associated with SDP, and negatively associated with ATTARI. H4: SDP is negatively associated with DEP and LEK and not significantly associated with ATTARI. H5: ATTARI is positively associated with SDP indirectly through lower DEP (ATTARI → DEP → SDP). H6: ATTARI is positively associated with SDP indirectly through lower LEK (ATTARI → LEK → SDP).

2. MATERIALS AND METHODS

Participants. The sample comprised 227 adults recruited online. Eligibility criteria included age ≥ 18 years, Polish-language proficiency, and provision of informed consent; cases with incomplete key-variable data were excluded from analyses. The mean age was 30.55 years (SD = 10.59; range 18–68). The sample included 167 women, 59 men, and 1 person who preferred not to disclose gender. Regarding education, 119 participants reported secondary education, 98 higher education, 6 primary education, and 4 vocational education. Place of residence was reported as city (n = 135) or rural area (n = 92).

Measures. Attitudes toward artificial intelligence (ATTARI) were assessed using a standardized AI-attitude instrument grounded in the General Attitudes

Toward Artificial Intelligence framework (Schepman, Rodway, 2020: 1–10; Rózsa et al., 2025: 1–20). Internal consistency in the current study was high (α = .90, 12 items). Psychological distress was operationalized via two DASS-21 subscales: Depression (DEP) (7 items; α = .89) and Anxiety (LEK) (7 items; α = .86), based on Polish adaptation evidence for the DASS family of measures (Makara-Studzińska, Petkowicz, Urbańska, 2024: 1–16). Psychological well-being (SDP) was measured with an 18-item well-being scale consistent with the eudaimonic well-being tradition (Ryff, 2014: 10–28); internal consistency was acceptable (α = .83).

Procedure and ethics. Data were collected via an anonymous online survey. Participation was voluntary and preceded by informed consent; respondents could discontinue at any time. No identifying information was collected, and data were analysed in aggregated form.

Statistical analyses. Descriptive statistics and Pearson correlations were computed for all study variables. Mediation hypotheses were tested using PROCESS v5.0 (Model 4) with heteroskedasticity-consistent standard errors (HC3) and 5,000 percentile bootstrap samples to estimate 95% confidence intervals for indirect effects (Hayes, 2013; Igartua, Hayes, 2021: 1–23). Indirect effects were interpreted as statistically significant when the 95% bootstrap *CI* did not include zero.

3. RESULTS

Descriptive statistics for all study variables are reported in Table 1 (N = 227). Attitudes toward artificial intelligence (ATTARI) showed a moderate mean level (M = 37.52, SD = 7.98), whereas depressive symptoms (DEP; M = 5.39, SD = 4.92) and anxiety symptoms (LEK; M = 4.35, SD = 4.51) were, on average, relatively low to moderate. Psychological well-being (SDP) was relatively high (M = 80.41, SD = 10.81). When evaluating distributional properties, the liberal criterion proposed by Tabachnick and Fidell (2013) was applied, indicating that in larger samples skewness and kurtosis values within ±2 are typically compatible with the use of parametric procedures. In the present dataset, skewness and kurtosis indices for all variables remained within this interval (Table 1). This decision is additionally consistent with the central limit theorem, which supports the expectation that sampling distributions approximate normality in samples exceeding approximately 100 observations, even when minor deviations from normality are observed at the raw-score level.

Table 1. Descriptive statistics for study variables (N = 227)

Variable	N	Min	Max	M	SD	Skewness	Kurtosis
ATTARI	227	13.00	57.00	37.52	7.98	−0.37	−0.09
DEP	227	0.00	20.00	5.39	4.92	0.99	0.23
LEK	227	0.00	21.00	4.35	4.51	1.35	1.51
SDP	227	41.00	106.00	80.41	10.81	−0.55	0.40

Note. ATTARI – attitude toward artificial intelligence; DEP – depressive symptoms; LEK – anxiety symptoms; SDP – psychological well-being. Values are rounded to two decimals.

Pearson correlations among study variables are presented in Table 2 and were used to evaluate the correlational hypotheses (H1–H4). In line with the expected pattern for ATTARI, more positive attitudes toward artificial intelligence were associated with lower depressive symptoms, $r = –.15$, $p < .05$, and lower anxiety symptoms, $r = –.13$, $p < .05$, while the association between ATTARI and psychological well-being was small and non-significant, $r = .09$, $p = .162$. This configuration is consistent with the correlational expectations that ATTARI would covary negatively with indicators of psychological distress but would not necessarily exhibit a direct bivariate association with well-being. The remaining correlations followed a coherent distress-well-being structure: depressive symptoms were strongly positively related to anxiety symptoms, $r = .69$, $p < .001$, and both were negatively related to psychological well-being (DEP with SDP: $r = –.61$, $p < .001$; LEK with SDP: $r = –.42$, $p < .001$). This pattern supports the cumulative correlational expectations for DEP and LEK (i.e., their positive covariation and their negative links with SDP), and it is also consistent with the expectation for SDP to show negative associations with distress indicators.

Table 2. Pearson correlations among study variables (N = 227)

Variable	1	2	3	4
1. ATTARI	–			
2. DEP	−0.15*	–		
3. LEK	−0.13*	0.69**	–	
4. SDP	0.09	−0.61**	−0.42**	–

Note. ATTARI – attitude toward artificial intelligence; DEP – depressive symptoms; LEK – anxiety symptoms; SDP – psychological well-being. Values are Pearson's r, rounded to two decimals. * $p < .05$, ** $p < .001$ (two-tailed).

Mediation results (PROCESS Model 4) are summarized in Table 3 and were interpreted with reference to the mediation hypotheses (H5–H6). In the model with depressive symptoms as the mediator, ATTARI was a significant negative predictor of DEP (path a: b = –0.09, *SE* = 0.04, $t = –2.41$, $p = .02$), and DEP was a significant negative predictor of SDP (path b: b = –1.34, *SE* = 0.14, $t = –9.43$, $p < .001$). The direct effect of ATTARI on SDP was not significant (c': b = 0.01, SE = 0.07, $t = 0.09$, $p = .93$). Importantly, the indirect effect via DEP was statistically significant, as the percentile bootstrap 95% confidence interval did not include zero (ab = 0.12, *BootSE* = 0.05, 95% CI [0.02, 0.22]). This indicates that higher ATTARI was associated with higher SDP indirectly through lower depressive symptoms, supporting H5. An analogous pattern emerged for the model with anxiety symptoms as the mediator. ATTARI significantly predicted lower LEK (path a: b = –0.08, *SE* = 0.03, $t = –2.42$, $p = .02$), and LEK significantly predicted lower SDP (path b: b = –0.99, *SE* = 0.20, $t = –4.89$, $p < .001$), while the direct effect of ATTARI on SDP again remained non-significant (c': b = 0.05, *SE* = 0.09, $t = 0.59$, $p = .55$). The indirect effect via LEK was significant (ab = 0.07, *BootSE* = 0.03, 95% CI [0.02, 0.14]), supporting H6. Across both models, the non-significant direct effects alongside significant indirect effects are consistent with an indirect-only pattern, suggesting that the association between attitudes toward artificial intelligence and psychological well-being is accounted for primarily through reduced psychological distress, operationalized here as depressive and anxiety symptoms.

Table 3. Mediation analyses (PROCESS Model 4) – ATTARI predicting SDP via DEP and LEK (N = 227)

Mediation model	Path / effect	b	SE	t	p	95% CI
M = DEP	ATTARI → DEP (a)	−0.09	0.04	−2.41	0.02	[−0.16; −0.02]
	DEP → SDP (b)	−1.34	0.14	−9.43	<0.001	[−1.62; −1.06]
	ATTARI → SDP (c′)	0.01	0.07	0.09	0.93	[−0.13; 0.15]
	Indirect effect (ab)	**0.12**	**0.05***	–	–	**[0.02; 0.22]**
M = LEK	ATTARI → LEK (a)	−0.08	0.03	−2.42	0.02	[−0.14; −0.01]
	LEK → SDP (b)	−0.99	0.20	−4.89	<0.001	[−1.39; −0.59]
	ATTARI → SDP (c′)	0.05	0.09	0.59	0.55	[−0.12; 0.22]
	Indirect effect (ab)	**0.07**	**0.03***	–	–	**[0.02; 0.14]**

Note. b – unstandardized regression coefficient. SE for paths a, b, and c′ are heteroskedasticity-consistent (HC3). Indirect effects are based on percentile bootstrap with 5,000 samples; CI refers to the bootstrap 95% confidence interval. An indirect effect is considered statistically significant when the 95% CI does not include zero (both models meet this criterion).

* For indirect effects, SE refers to Boot SE reported by PROCESS.

4. DISCUSSION

The present findings can be framed within research on technology-related stress and broader mental-health models, in which attitudes toward novel digital systems function as an appraisal lens. Technostress perspectives propose that technological complexity, unpredictability, and demand intensity can generate strain that generalizes into everyday affective functioning (Ayyagari, Grover, Purvis, 2011: 831–858; Tarafdar, Pullins, Ragu-Nathan, 2015: 103–132; Tarafdar, Cooper, Stich, 2019: 6–42). In contrast, technology readiness theory suggests that more approach-oriented beliefs about technology are linked to more adaptive engagement and lower perceived burden when facing innovation (Parasuraman, Colby, 2015: 59–74). The observed pattern – more positive attitudes toward artificial intelligence (ATTARI) coinciding with lower depressive (DEP) and anxiety symptoms (LEK), alongside a non-robust bivariate link with psychological well-being (SDP) – supports the interpretation that AI attitudes are more proximally tied to distress-related appraisals than to well-being as a broader, multi-determined outcome. This is also compatible with evidence that responses to algorithms are ambivalent, ranging from algorithm aversion after observing errors to algorithm appreciation when reliability and utility are salient, which may weaken any simple attitude-to-well-being linkage (Dietvorst, Simmons, Massey, 2015: 114–126; Logg, Minson, Moore, 2019: 90–103). Therefore, the expected negative relations of ATTARI with distress indicators were corroborated, and the lack of a clear ATTARI-SDP association remained consistent with the intended configuration; Hypothesis H1 was partially supported.

The broader correlational structure aligns with the dual-continua model, according to which well-being and psychopathology represent related yet partially distinct dimensions of mental health (Ryff, 2014: 10–28; Mason-Stephens et al., 2025: 1–10).

This framework clarifies why strong inverse links between distress and SDP can emerge even when ATTARI is not directly tied to SDP at the zero-order level: well-being reflects more than symptom absence and depends on additional psychological and contextual resources (Fava, 2012: 102–103; Ryff, 2014: 10–28). The convergence between DEP and LEK is consistent with psychometric evidence indicating substantial shared variance across distress domains while preserving depression– and anxiety-specific content (Watrowski, Rohde, 2014: 517–524; Wiglusz et al., 2018: 1–8). Recent validation work further supports the interpretability of DASS-based distress dimensions in Polish samples, strengthening confidence in DEP and LEK operationalizations (Makara-Studzińska, Petkowicz, Urbańska, 2024: 1–16; Śliwerski et al., 2025: 1–20). Finally, validations of brief well-being indicators consistently document robust negative associations with depressive symptomatology, reinforcing the conceptual plausibility of strong inverse links between SDP and distress indicators (Omidi et al., 2019: 1–10; Obrębski et al., 2025: 1–10). Collectively, these findings support the cumulative correlational expectations for distress and well-being; Hypothesis H2 was supported, Hypothesis H3 was supported, and Hypothesis H4 was supported.

The mediation results refine the interpretation by specifying that attitudes toward AI relate to well-being primarily through psychological distress. Contemporary mediation logic allows indirect effects to be meaningful even when the direct predictor-outcome association is weak, particularly when intervening processes are theoretically proximal (Hayes, 2013; Igartua, Hayes, 2021: 1–23). In the depression model, higher ATTARI corresponded to lower DEP, and lower DEP corresponded to higher SDP, producing a credible indirect effect. Substantively, this pattern is consistent with an appraisal-to-distress pathway: more favourable AI attitudes may reduce threat-related cognitions and maladaptive appraisals in digital contexts, thereby lowering depressive symptom expression and aligning with higher well-being. This interpretation converges with technostress accounts in which negative technology appraisals accumulate into chronic strain reactions that are compatible with depressive symptomatology and reduced positive functioning (Ayyagari, Grover, Purvis, 2011: 831–858; Tarafdar, Pullins, Ragu-Nathan, 2015: 103–132). It is also consistent with affect-regulation perspectives linking self-critical coping and reduced compassion to elevated distress, suggesting that attitudinal orientations may matter chiefly insofar as they attenuate distress-prone internal responding to perceived challenges (Gilbert, McEwan, Matos, Rivis, 2014: 789–808; Krieger, Berger, Grosse Holtforth, 2016: 39–45). Moreover, Polish work on technostress measurement supports the broader premise that technology-induced strain can be reliably captured and linked with psychological outcomes (Kot, Kowalski, Kasperek-Golimowska, 2022: 431–444). Accordingly, the depression-mediated hypothesis was corroborated; Hypothesis H5 was supported.

A parallel indirect mechanism emerged for anxiety symptoms, reinforcing distress as the primary conduit linking AI attitudes with well-being. This mediation is consistent with models of digitalization anxiety and AI-specific anxiety, which emphasize uncertainty, low perceived control, and threat anticipation as central drivers that can generalize beyond technology into broader psychological functioning (Pfaffinger, Reif, Spieß, 2021: 1–17; Wang et al., 2022: 1–17; Wilson et al., 2023: 1–18). In this context, more positive AI attitudes may reflect not only cognitive endorsement

but also reduced anxiety-laden anticipation toward algorithmic systems, thereby lowering LEK and indirectly aligning with higher well-being. This reading is congruent with psychometric evidence on general AI attitude measures documenting reliable assessment and meaningful psychosocial correlates (Schepman, Rodway, 2020: 1–10; Rózsa et al., 2025: 1–20). The persistence of non-significant direct effects alongside significant indirect effects supports an indirect-only configuration in which AI attitudes are relevant to SDP chiefly through reduced distress, which remains theoretically coherent within the dual-continua model (Ryff, 2014: 10–28; Mason-Stephens et al., 2025: 1–10). Therefore, the anxiety-mediated hypothesis was corroborated; Hypothesis H6 was supported.

5. CONCLUSION

In summary, the present findings indicate that attitudes toward artificial intelligence are meaningfully embedded in a broader mental health context, primarily through their associations with psychological distress rather than through a direct link with psychological well-being. More favourable AI attitudes were consistently related to lower depressive and anxiety symptoms, and these distress indicators, in turn, were robustly associated with higher psychological well-being, yielding indirect-only effects in both mediation models. This pattern supports an interpretation in which attitudinal appraisals of AI correspond to well-being chiefly insofar as they coincide with reduced distress-related symptomatology, a configuration that remains conceptually coherent with dual-continua perspectives on mental health. Accordingly, the results underscore the relevance of integrating technology-attitude constructs into psychological models that explicitly account for distress processes when explaining individual differences in well-being in the context of increasing AI exposure.

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Origine créatrice de Nikola Tesla et l'intelligence artificielle. De mon point de vue de la philosophie du néant et de l'amour

Summary

The Creative Origins of Nikola Tesla and Artificial Intelligence
From My Perspective on the Philosophy of Nothingness and Love.
Today, AI (artificial intelligence) plays an extremely important role in our world. It is the driving force behind our internet society and contributes to the development of academia and the workplace. Its influence is so pervasive and powerful that it has sparked certain fears: AI could surpass and control humans. Soon, the human race will be dominated by a giant AI. A rational AI could view murderous and warlike humans as a collective organism of contradictions and judge them as an evil that will destroy the earth. This includes the malfunctioning of nuclear weapons by computers. In response to these fears, I will examine what creation and invention are and demonstrate the fundamental difference between humans and AI. Nikola Tesla is a relevant figure for this purpose. I would like to examine Nikola Tesla's existence from the perspective of my principle of nothingness and love and demonstrate the limitations of AI. Tesla's achievements and life experiences are related to those of Aristotle, the father of all sciences.
My philosophy of nothingness and love departs from the ancient Chinese concept of nothingness, the vast as reality. It is nothingness because it is so vast that it transcends expression; it is the flow of life, the energy that circulates through all things. Furthermore, nothingness functions prelogically as a negation in thought. This energy of nothingness can explain the creation of the universe from nothingness, the Big Bang. It includes Aristotle's ether. This point was addressed in my cosmology, "On the Synthesis of the Theory of Relativity and Quantum Theory" (2008, World Congress of Philosophy, Seoul National University). This nothingness is also infinite because it is the origin of the creation of the universe. Nothingness is infinite, eternal, and continues until it reaches the transcendent Being (God), Love.

Keywords: Nikola Tesla, Artificial intelligence, Creative origin, Invention, Difficulties, Psychological safety, New education in Asia, Aristotle's moderation and Philia, The universe is alive, Philosophy of nothingness and love, Biocosmology.

I NÉANT, ORIGINE DE L'INVENTION CRÉATRICE

Nikola Tesla (1856–1943) est né dans l'actuelle Croatie au sein d'une famille serbe. Son père s'appelait Milutin Tesla, Prêtre orthodoxe et sa mère Duka. Il avait un frère aîné, Dane, et deux sœurs, Milka et Angelina, et plus tard une sœur cadette, Marica.

Les réalisations de Tesla de son vivant ont dépassé celles de Thomas Edison (1847–1931), le roi des inventeurs. Son invention du système de courant alternatif a permis la construction de la centrale hydroélectrique polyphasée des chutes du Niagara en 1895. Ce fut la victoire de l'entreprise d'Edison dans l'appel d'offres pour la construction. Par la suite, le système de courant alternatif s'est répandu dans le monde entier. Il a ensuite inventé la radio, l'éclairage à décharge, l'éclairage fluorescent, la radiocommande de robots, l'alimentation sans fil et d'autres idées qui lui auraient valu plusieurs prix Nobel. En un sens, ses réalisations sont si nombreuses qu'il est impossible de les décrire. Et cela va au-delà du prix Nobel. Cependant, dans l'ombre de ses réalisations historiques, il a en fait rencontré beaucoup d'épreuves, de difficultés, d'obscurité et de néant. Cette rencontre avec le néant est à l'origine de la créativité de Tesla. Des exemples représentatifs seront donnés et discutés.

1. Adieu au frère Mort de Dane

> "Tout d'abord, j'avais un frère extraordinairement doué, un de ces rares phénomènes mentaux que les recherches biologiques n'ont pas réussi à expliquer. Sa mort prématurée a laissé mes parents inconsolables. Nous possédions un cheval qui nous avait été offert par un ami très cher... Ce cheval était responsable des blessures de mon frère, dont il est mort. J'ai gardé en mémoire cette scène tragique et, bien que cinquante-six ans se soient écoulés depuis, l'impression visuelle qu'elle m'a laissée n'a rien perdu de sa force. Le souvenir de ses exploits fait que tous mes efforts paraissent dérisoires en comparaison."[1]

Tesla avait un frère aîné exceptionnellement doué, Dane, qui avait sept ans de plus que lui. Lorsque Tesla eut sept ans, en 1863, ce frère aîné mourut, à la grande consternation de ses parents. Dans la maison se trouvait un cheval doté de l'intelligence d'un être humain, un cheval suffisamment intelligent pour sauver la vie du père de Tesla. Ironiquement, c'est ce cheval qui a blessé et tué le frère de Tesla.

[1] Nikola Tesla, "My Inventions, The Autobiography of Nikola Tesla", Edited, with an Introduction, by Ben Johnston, Hart Brothers Austin, Texas, 1919, p.28.) Je l'ai qualifiée de"Mes inventions" et l'ai traduit en français.
Cf. Marc J. Seifer, "The Life and Times of Nikola Tesla Biography of a Genius" , Citadel Kensington Publishing Corp, New York, 1998.

Il n'y a pas de description spécifique, mais c'est trop tragique. Cela devait être trop tragique pour être écrit. La scène tragique reste forte à ce moment-là. Lorsqu'il se souvient des exploits de son frère, tous les efforts de Tesla lui paraissent fastidieux. Cependant, il n'y a aucune description de tout ce que son frère a accompli. Même si Tesla avait fait quelque chose d'admirable, ses parents n'en auraient ressenti que plus fortement la perte de leur fils. C'est pourquoi Tesla n'était pas sûr de lui. Comparé à son frère aîné, il a dû ressentir sa propre impuissance et son néant.

En même temps, voyant la déception de ses parents, il ressent vivement le manque, la mort et le néant de son frère. Ce néant, cependant, se prolonge par un désir infini.

> "Si mon frère avait vécu, combien de réalisations aurait-il accomplies? Pourquoi dois-je m'accrocher à cet avenir glorieux? Je dois m'accrocher à cet avenir glorieux, et ainsi ramener en moi l'amour que mes parents avaient pour mon défunt frère. Ce désir intense semble avoir été la source de la puissance créatrice de Tesla tout au long de sa vie".[2]

Comme le note également Masaaki Shindo, pionnier de la recherche sur Tesla au Japon, le manque ou le néant de la perte de son frère est devenu une source de pouvoir créatif illimité pour compenser.

2. Choléra, errance sur le lit de mort 1873–1874, guérison

Dans le système éducatif actuel, il serait en deuxième ou troisième année de lycée (17–18 ans) au Japon. Son père était un ecclésiastique. C'était un père très compétent. La mère et le père espéraient vivement que Tesla devienne pasteur. Cependant, cela aurait été un choix de carrière impossible pour Tesla, qui trouvait la participation aux offices ennuyeuse et pénible. Au lieu de cela, sous l'influence d'un ingénieux professeur de physique, il s'intéresse davantage à l'invention. Il a démontré plusieurs lois et principes de la physique à l'aide d'appareils de sa propre invention. Il s'agit notamment d'une ampoule recouverte d'une feuille d'étain, qui tourne librement et à grande vitesse lorsqu'elle est reliée à une machine stationnaire. Ce phénomène était si mystérieux qu'il était impossible de décrire l'émotion. (En d'autres termes, c'est le néant.) il s'agit d'une idée qui a donné naissance à la future bobine de Tesla et qui a eu d'innombrables répercussions. Il a voulu élucider cette force.

> "Mais quelques jours plus tard, j'ai appris que le choléra faisait rage dans ce district et, profitant d'une occasion, je suis retourné à Gospić au mépris des souhaits de mes parents. Il est incroyable de constater à quel point les gens étaient absolument ignorants des causes de ce fléau qui visitait le pays à des intervalles de quinze à vingt ans. Ils pensaient que les agents mortels se transmettaient par l'air et le remplissaient d'odeurs âcres et de fumée. Entre-temps, ils buvaient de l'eau infectée et mouraient en tas. J'ai été confronté à cette terrible maladie le jour même de mon arrivée et, bien qu'ayant survécu à la crise, j'ai été confiné au lit pendant neuf mois avec à peine la capacité de bouger. Mon énergie était complètement épuisée et, pour la deuxième fois, je me trouvais aux portes de la mort. Au cours d'une de ces crises, que l'on croyait être la dernière, mon père s'est précipité dans la chambre. Je revois

[2] Masaaki Shindo, "Words of Genius Nikola Tesla", Takanashi Shobo, Tokyo, 2019, p. 153.

> encore son visage blême alors qu'il essayait de me réconforter sur un ton qui n'était pas celui de l'assurance.
>
> «Peut-être, dis-je, pourrais-je guérir si vous me laissiez faire des études d'ingénieur.»
> Il me répondit solennellement: «Tu iras dans le meilleur établissement technique du monde», et je sus qu'il le pensait vraiment. Un poids lourd s'est envolé de mon esprit, mais le soulagement aurait été trop grand.
> Mais le soulagement serait arrivé trop tard s'il n'y avait pas eu une merveilleuse guérison apportée par une décoction amère d'un haricot particulier. Je suis revenu à la vie comme un autre Lazare, à la stupéfaction générale."[3]

Cependant, à son retour, Tesla contracte le choléra avant d'avoir eu le temps de se remettre de la malaria. Les gens autour de lui sont morts en masse. Il l'a attrapé le jour de son arrivée à la maison, pouvait à peine bouger et est resté alité pendant neuf mois. Pour un jeune homme de 17 ans à l'esprit vif, être cloué sur un lit d'hôpital pendant neuf mois était une maladie grave. Son énergie était complètement épuisée et, la deuxième fois, il était au bord de la mort. Il errait au bord de la mort. C'était une rencontre avec le néant. Ici, Tesla dit à son père.

Son père lui répond: «Tu vas aller dans la meilleure école technique du monde», une réponse qui encourage Tesla. Elle s'est avérée être un merveilleux remède. Tesla, qui avait failli mourir, est revenu à la vie comme Lazare, le symbole biblique du ressuscité.[4] C'est encore le fils du pasteur qui a connu Lazare, revenu à la vie depuis la tombe. La résurrection de Lazare est un avant-goût de la résurrection du Christ, symbole du dépassement de la mort et de la vie éternelle. Le néant se prolonge dans l'éternité et dans la création infinie. Au bord de la mort, du néant, le père a reconnu "le chemin de l'ingénierie" comme un encouragement. Cet encouragement a conduit à sa guérison miraculeuse. L'amour du père vainc même la mort. Le néant ne s'arrête pas là, mais continue vers l'infini, l'éternité et l'amour. C'est la réalisation du principe du néant et de l'amour que je préconise.

3. Les échecs, l'abandon de l'université et les considérations éducatives de sa mère

À l'université de Graz, Tesla apprend l'existence de la machine de Gram et la limite du courant continu. Il le fait remarquer à son professeur, mais ne parvient pas à le convaincre. La machine de Gram entraîne un moteur en convertissant le courant généré par le courant alternatif en courant continu. Cependant, lors de cette conversion, des étincelles se produisaient. Pour y remédier, il faut utiliser le courant alternatif tel quel, sans le convertir en courant continu. L'intuition de Tesla l'a conduit à cette conclusion. Cependant, les échecs sont nombreux et la solution semble irréalisable. Mais Tesla n'a pas hésité et a fait confiance à son instinct et à son intuition.[5]

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3 "Mes inventions", p. 54.

4 "The Bible", St. John 11:43 – 44, Oxford World's Classics, Oxford University Press, 1997.

5 "Paroles du génie Nikola Tesla", pp. 30–31.

> "J'ai commencé par imaginer dans mon esprit une machine à courant continu, je l'ai fait fonctionner et j'ai suivi l'évolution des courants dans l'induit. Ensuite, j'imaginais un alternateur et j'étudiais les processus qui se déroulaient de la même manière. Ensuite, je visualisais des systèmes comprenant des moteurs et des générateurs et je les faisais fonctionner de différentes manières. Les images que je voyais étaient pour moi parfaitement réelles et tangibles. Tout le reste de mon séjour à Gratz a été consacré à des efforts intenses mais infructueux de ce type, et j'en suis presque arrivé à la conclusion que le problème était insoluble".[6]

Il a dessiné dans son cerveau des machines à courant alternatif (AC) et à courant continu (DC) et a cherché un mécanisme qui permettrait de les faire fonctionner simultanément sans produire d'étincelles. Mais la tâche est si difficile qu'il abandonne presque le défi. C'est à nouveau la galère, le néant. Il s'est tourné vers le jeu pour soulager sa stagnation et sa frustration. Lorsqu'il étudiait, sa concentration fonctionnait. En revanche, lorsqu'il se concentre sur le jeu, il n'a plus d'argent pour sa bourse en un clin d'œil. De plus, ses habitudes de jeu excessives ont été découvertes par l'université, qui a suspendu sa bourse pour mauvaise conduite et l'a expulsé de l'université, 1876 (à l'âge de 20 ans).[7] Il était entré à l'université de Graz avec un rêve.

Mais il allait se heurter au néant, à la perte de la possibilité de fréquenter l'université. Pour Tesla, le temps passé à l'université avait été sa vie. Il n'y a rien eu. C'était un retour au pays, mais c'était aussi une crise dans la vie de Tesla. Son père est d'abord furieux contre Tesla, mais sa mère ne prend pas de mesures strictes à l'encontre de Tesla, qui a joué et s'est perdu. Elle l'accueille chaleureusement, comme le fils prodigue de la Bible, le père qui pardonne à son fils qui a perdu sa fortune au jeu.[8]

C'est la partie la plus importante de la théorie de l'éducation: surveiller, accepter et encourager les enfants et les jeunes plutôt que de les blâmer pour leurs échecs. C'est ainsi que la sécurité psychologique des enfants et des jeunes est assurée. Cette leçon est toujours d'actualité. Ce concept de sécurité psychologique est aujourd'hui nécessaire au Japon et dans d'autres pays asiatiques, qui sont tellement pressés d'obtenir des résultats scolaires qu'ils ont perdu de vue l'esprit de tolérance et le concept de sécurité psychologique. Une trop grande préoccupation pour les moyennes et les hiérarchies scolaires a conduit à une perte de sécurité psychologique et de stabilité pour les étudiants et les jeunes. En Occident, la sécurité psychologique est garantie par l'éducation de l'individu, l'exercice de la créativité et la dignité des droits de l'homme. D'où l'individualité, les inventions créatives et les découvertes.

Le Japon et l'Asie ont des moyennes élevées, mais sont loin derrière en matière de créativité. Tout en reconnaissant les mérites d'une éducation qui maintient la moyenne du Japon et de l'Asie, le défi consiste à développer la créativité et l'individualité. À cette fin, il est essentiel que l'éducation garantisse la sécurité psychologique. Il est important de développer l'individualité et la créativité. L'éducation de la mère de Tesla est un modèle pour l'éducation dans le Japon moderne et en Asie. La signification de

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6 "Mes inventions", p. 59.

7 Masaaki Shindo, "Invention Superman Nikola Tesla", Chikuma Shobo, Tokyo, 1997, pp. 88–91.

8 "La Bible", Luc 15:11 – 32: Parabole du fils prodigue.

cette sécurité psychologique est complètement différente de celle de la négligence. Il ne s'agit ni de laisser-faire ni de contrôler, mais plutôt de la modération d'Aristote.

Par exemple, j'ai rendu compte de mon projet de journal mural d'études sociales dans mes écoles secondaires.[9] Dans ce journal mural (un par élève, n'importe quel thème, réalisé à la maison, durée 3 mois, taille 1m x 80cm), les élèves se sont amusés à réaliser le journal et ont fait preuve de créativité. Certains élèves ont même appris le coréen et ont écrit en coréen. Et bien sûr, en anglais. La chose importante à retenir est de répondre aux questions des élèves lorsqu'ils les posent, mais sinon, de les laisser penser par eux-mêmes. C'est-à-dire philosopher (philosophieren). L'enseignant doit attendre. S'il en dit trop, les élèves se rapetissent, perdent leur liberté et leur créativité. Les enseignants doivent être prêts à admettre leurs erreurs. C'est ce qui a manqué dans l'éducation japonaise et c'est pourquoi il y a si peu d'inventions et de découvertes créatives au Japon. Telle est ma philosophie de l'éducation.

La sécurité psychologique et les encouragements des parents de Tesla l'ont aidé à se rétablir. À la demande de son père, il devient auditeur d'été à l'université de Prague, en République tchèque, où il étudie les mathématiques et la physique. Il se rend ensuite à Budapest, en Hongrie, pour travailler au bureau du téléphone. Il y perfectionne ses compétences pratiques sur le terrain et souffre également de névrose ou de dysautonomie. Mais l'idée d'un moteur à courant alternatif lui est venue.

4. Maladies depuis l'enfance: Maux de tête, hallucinations, intuition d'idées

4.1. Goûts, dégoûts et habitudes particulières

Il avait une violente aversion pour les boucles d'oreilles des femmes, mais un penchant pour les bracelets. La vue des perles lui donne presque une crise d'épilepsie. Mais les perles aux reflets cristallins et aux arêtes tranchantes le fascinent. Toucher les cheveux d'une autre personne lui fait peur. La vue des pêches lui donne la fièvre. La présence de camphre le met mal à l'aise. Laisser tomber un petit carré de papier dans une assiette remplie de liquide lui donne un goût horrible dans la bouche. Compter les pas d'une promenade, ou calculer le contenu d'une assiette creuse ou d'une tasse à café. Sinon, le repas n'est pas agréable. Les actes répétitifs, les opérations doivent être divisibles par trois, et s'il échoue, il a l'impression de devoir recommencer.[10]

4.2. Hallucinations – visions de type pentecôtiste

Depuis son enfance, Tesla a souvent souffert d'éclairs de lumière. Il s'agissait d'une langue de flamme tirée de la Bible, chapitre 14 des Actes des Apôtres. C'est par cette langue de feu que les disciples du Christ ont reçu le Saint-Esprit et ont eu une foi puissante. C'est un symbole de la passion de la foi que Tesla a décrit comme suit:

> "J'avais environ douze ans lorsque j'ai réussi pour la première fois à chasser une image de ma vision par un effort délibéré, mais je n'ai jamais eu aucun

[9] Kiyokazu Nakatomi, 'Current status of education in Japn'," Nothingness and Love of Japanese Philosophy", Lambert Academic publishing. 2020, Germany, pp. 234–240.

[10] "Mes inventions", pp. 35–36.

> contrôle sur les éclairs de lumière auxquels j'ai fait référence. Ils ont été, peut-être, mon expérience la plus étrange et inexplicable. Ils se produisaient généralement lorsque je me trouvais dans une situation dangereuse ou angoissante ou lorsque j'étais très excité. Dans certains cas, j'ai vu tout l'air autour de moi rempli de langues de flammes vivantes. Leur intensité, au lieu de diminuer, a augmenté avec le temps et a apparemment atteint un maximum lorsque j'avais environ vingt-cinq ans."[11]

4.3. La dysautonomie et l'intuition des idées à Budapest

En raison des difficultés financières de sa famille, Tesla est contraint de trouver un emploi et travaille dans un bureau de télégraphe à Budapest. Il travaille assidûment, mais à force de se surmener, il souffre d'un déséquilibre autonome extrême et d'une dépression nerveuse. Cette tendance s'est maintenue depuis son enfance.

Une horloge située à trois pièces de distance était sensible aux sons. Une mouche perchée sur une table dans une pièce produisait un bourdonnement sourd à ses oreilles. À quelques kilomètres de là, la vibration d'une voiture à cheval faisait trembler son corps ; à 20 ou 30 kilomètres, le sifflet d'un train à vapeur secouait violemment le banc, la chaise sur laquelle Tesla était assis, ce qui lui causait une douleur atroce. Les rayons du soleil, interrompus périodiquement, choquent Tesla au point qu'il s'évanouit. Pour passer sous les ponts et les ouvrages d'art, il ressentait la pression écrasante de son crâne écrasé. Les pulsations étaient extrêmement variées, allant de quelques-unes à 260, et le corps était insupportable de spasmes et de vibrations. Un médecin réputé déclara cette maladie unique et incurable.[12] Le médecin a pour ainsi dire levé les bras au ciel. Cela coïncide avec Nietzsche, qui a souffert toute sa vie de migraines et de douleurs oculaires.

Il a regretté toute sa vie de ne pas avoir été examiné par un physiologiste ou un psychologue à l'époque. Qui aurait pu espérer une guérison au milieu d'un demi-désespoir, de l'obscurité et du néant? C'est la volonté de travailler de Nikola, la "volonté de vivre" et la "volonté de puissance" de Nietzsche, ainsi que l'aide dévouée d'amis et d'athlètes qui ont permis au miracle de se produire. C'est l'amour des amis, la Philia d'Aristote. Le néant continue à l'infini, à l'amour. L'amour des amis a ranimé Tesla comme Lazare l'avait fait autrefois. De ce désespoir, de ce néant, est née l'idée du grand moteur à courant alternatif.

5. Rencontre avec Edison

Plein d'espoir, il entre dans l'entreprise d'Edison dont il rêvait et accomplit rapidement une tâche difficile. Edison n'était probablement pas conscient des capacités de Tesla et le considérait comme un assistant peu compétent. Edison ne pensait pas que Tesla pourrait accomplir la tâche difficile. Puisqu'il a pu faire plus que prévu, Edison a promis à Tesla une récompense de 50 000 dollars en guise d'encouragement. Mais Tesla s'est acquitté de sa tâche avec une rapidité inattendue. Peut-être Edison faisait-il souvent ce genre de plaisanterie à ses subordonnés. Tesla a accompli le travail

[11] "Mes inventions", p. 34 .

[12] "Mes inventions", pp. 59–60.

et a demandé 50 000 dollars. Edison a dû être surpris. Tesla ne pensait pas qu'il s'agissait d'une plaisanterie et il l'a exigée en toute impunité. Edison l'a pris pour une plaisanterie, mais Tesla a été choqué et a rencontré chez Edison la désillusion, l'obscurité et le néant. Il en profite pour quitter la société d'Edison.[13]

C'est la particularité et la fierté de Tesla. S'il avait été japonais, il l'aurait toléré en plaisantant. Au mieux, il aurait dit: «À partir de maintenant, plus de blagues, s'il vous plaît.» Même s'il ne recevait pas les 50 000 dollars, il ne serait pas licencié. «Je viens d'entrer dans l'entreprise d'Edison, je vais donc continuer à y travailler même si je suis mécontent.» Il s'agit là d'un solide mode de pensée japonais. Et même s'ils devaient quitter l'entreprise, ils le feraient probablement après avoir trouvé l'entreprise suivante.

Cependant, Tesla, qui avait confiance en ses propres idées et en son originalité, a quitté l'entreprise avec élégance. Il a ensuite créé une entreprise de lampes à arc, mais celle-ci n'a pas duré. Il a alors commencé à travailler comme journalier. Tesla devait avoir une intuition. Edison n'a pas tenu compte de la personnalité de Tesla. À l'avenir, si Tesla a une idée, Edison l'attribuera entièrement à ses propres réalisations. Edison n'exploitera et ne profitera que des idées de Tesla. C'est la déception chez Edison et le néant comme désespoir. Après cette expérience, Tesla quitte immédiatement l'entreprise. Dans un sens, c'était une sage décision. Mais il a souffert de la sueur et de la boue.

6. Une année dans la vie d'un journalier, 1886

Des jours de lutte:

> "Il y a eu des jours où j'étais au plus bas. Mais je suis allé sur le chantier de construction du fossé et j'ai demandé du travail. Lorsque le contremaître a vu mes beaux vêtements et mes mains blanches, lui et les ouvriers se sont regardés et ont ri. «Crache sur tes mains, ou tu es dans le caniveau». J'ai travaillé plus dur que les autres et j'ai reçu deux dollars à la fin de la journée."[14]

Après avoir quitté la société d'Edison en raison d'un désaccord avec ce dernier, Tesla fonde une entreprise de production de lampes à arc, qui fait faillite pendant la récession. Presque sans le sou, Tesla entre dans la période la plus désagréable de sa vie. Il perd sa source de revenus et devient journalier dans la construction de routes. Cette période a dû être humiliante pour Tesla, qui avait déjà été une lumière brillante dans l'entreprise d'Edison.

Il écrit:

> "J'ai vécu pendant un an avec un énorme chagrin d'amour et des larmes amères, tandis que mes blessures s'élargissaient matériellement."[15]

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13 "Mes inventions", pp. 71–72.

14 Nikola Tesla, Tesla Has Plan to Signal Mars, New York Sun, 12 juillet 1937. Cf. "Paroles du génie Nikola Tesla", p. 40.

15 "Paroles du génie Nikola Tesla", pp. 41–42.

L'immense chagrin d'amour et les larmes amères sont la boue, la sueur, la difficulté même, l'obscurité et le néant. Après les feux de la lampe, Tesla a rencontré l'obscurité, le néant. C'est l'épreuve et le néant que tout le monde connaît dans l'histoire. Mais c'est le catalyseur d'un grand bond en avant dans la vie.

Dieu n'a pas abandonné le talentueux Tesla et, au début de l'année 1887, un contremaître qui, comme Tesla, avait perdu son emploi à cause de la dépression, a appris l'invention du système AC et l'a présenté à l'un de ses partisans. C'est ainsi qu'en avril 1887, il a pu ouvrir un laboratoire sur West Broadway, dans l'actuelle ville de New York. Travaillant immédiatement sur le système à courant alternatif, Tesla a achevé la conception du moteur, du transformateur et du contrôleur automatique et a déposé une demande de brevet, qui a été acceptée.

II DU NÉANT À L'INFINI

Un foisonnement d'idées, 200 brevets. Pour Marconi, qui a reçu le prix Nobel pour les communications sans fil, «ses réalisations reposent sur mes 17 brevets», et en dessous de ses inventions, la lampe fluorescente, la prise électrique, la turbine géothermique, ils méritent plusieurs prix Nobel. Voire plus. Leur origine est l'énergie du néant, de l'obscurité et de l'univers (l'être transcendant).

Son talent d'inventeur s'est manifesté dès l'enfance. La mort de son frère aîné semble avoir été l'élément déclencheur.

Tesla a hérité de l'esprit d'exploration infini de sa mère, qui pensait toujours à inventer et à améliorer les outils agricoles et les articles ménagers. Le premier signe en est la création de la roue à eau, que Tesla a pu utiliser pour créer une roue hydraulique. À l'âge de 5 ans, il a construit lui-même une roue hydraulique et l'a fait tourner dans un ruisseau. À l'âge de 7 ou 8 ans, il a observé un exercice d'incendie lors de la cérémonie de formation des pompiers du village. Cependant, aucune eau ne sortait des tuyaux des pompiers. Les membres du groupe étaient perplexes, ne sachant pas pourquoi. Tesla, qui observait la scène, est entré instinctivement (intuitivement) dans le ruisseau et a découvert que le tuyau d'aspiration fonctionnait mal. Immédiatement, l'eau s'est mise à couler. Tesla est alors devenu un héros dans tout le village. Les pompiers reconnaissants ont porté Tesla sur leurs épaules.[16]

À l'âge de 10 ans, il s'est intéressé à une roue hydraulique dans le laboratoire de sciences de l'école. Lorsque Nikola y a vu une photo des chutes du Niagara, il a dû avoir une intuition. Il dit à son oncle: «Je construirai une roue hydraulique aux chutes du Niagara». Son oncle a nié que ce soit possible, mais 30 ans plus tard, il l'a réalisé. Cela montre à quel point il est important d'être respectueux des idées.[17]

Nikola n'invente pas seulement pour son propre honneur, mais aussi pour apporter une contribution bénéfique à l'humanité. Ce n'était pas de l'abnégation, mais il a consacré sa vie à l'invention. C'était un homme aux nombreuses réalisations, mais il n'avait pas la capacité d'accumuler des richesses et, à la fin, il était sans le sou. Son argent n'était rien (néant). Cependant, ses inventions électriques et ses ampoules

16 "Mes inventions", pp. 47–48.

17 "Mes inventions", pp. 48.

fluorescentes sont un phare de lumière et d'amour pour l'humanité. Sa vie s'explique aussi clairement par mon principe du néant et de l'amou.

Quelles ont été ses origines créatives? La mort de son frère. L'errance sur son lit de mort à cause du choléra. La frustration d'avoir abandonné l'université. Les hallucinations innées, les dépressions nerveuses, la rencontre et la séparation avec Edison. Le travail journalier humiliant. Ce ne sont là que quelques exemples. Il y en a d'autres, mais ils seront présentés la prochaine fois. Ces épreuves, l'obscurité et le néant, tout en illuminant la vie de Tesla, ont été le catalyseur de ses inventions. D'une manière générale, c'est le combat, la combativité. C'est la volonté de vivre de Nietzsche. Le passage suivant est une déclaration de détermination qui l'incarne. Le passage suivant provient du bureau télégraphique de Budapest, où Tesla a fait un excès de zèle et a souffert d'un déséquilibre autonome, un état de désespoir et de néant, dont il s'est miraculeusement remis.

> "Un puissant désir de vivre et de poursuivre le travail, ainsi que l'aide d'un ami dévoué et d'un athlète, ont permis d'accomplir ce miracle. Ma santé est revenue et, avec elle, la vigueur de mon esprit. En m'attaquant à nouveau au problème, j'ai presque regretté que la lutte se termine bientôt. J'avais tant d'énergie à revendre. Lorsque j'ai entrepris cette tâche, ce n'était pas avec une résolution telle que les hommes en prennent souvent. Pour moi, il s'agissait d'un vœu sacré, d'une question de vie ou de mort. Je savais que je périrais si j'échouais. Maintenant, j'ai le sentiment que la bataille est gagnée."[18]

Puis vint la révélation d'une intuition, d'une idée. C'était en 1882, et il se promenait dans le parc municipal de Budapest avec son ami d'université Antal Szigetey. Nous regardions le ciel brûlant au coucher du soleil et nous récitions le poème "Faust" de Goethe. C'était à ce moment-là.

German

"Sie rückt und weicht, der Tag ist überlebt,
Dort eilt sie hin und fördert neues leben.
Oh, dass kein Flügel mich vom boden hebt
Ihr nach und immer nach zu streben!
* * *
Ein schöner Traum indessen sie entweicht,
Ach, zu des Geistes Flügeln wird so leicht
Kein körperlicher Flügel sich gesellen! «

English

"The glow reatreata, done is the day of toil:
It yonder hastes, new field of life exploring:
Ah,that no wing can lift me from the soil
Upon its track to follow, follow soaring!
* * *

[18] "Mes inventions", pp. 60–61.

A glorious dream! Though now the glories fade.
Alas! The wings that lift the mind no aid
Of wings to lift the body can bequeath me. “

Français

“Il se penche et s’éteint, le jour expire,
mais il va porter autre part une nouvelle vie.
Oh! Que n’ai-je des ailes pour m’élever de la terre et m’élancer,
après lui, dans une clarté éternelle!
* * *
C’est un beau rêve tant qu’il dure!
Mais, hélas! le corps n’a point d’ailes
pour accompagner le vol rapide de l’esprit!”

Tesla décrit jusqu’aux lignes 1072–1091. Cependant, il manque les lignes 1076–1088 dans le poème original allemand. En fait, il y a 7 lignes. Il s’agit d’un poème sur la nostalgie du soleil levant et couchant et des ailes qui peuvent voler librement. Le passage manquant le plus important est «Je me hâte de boire la lumière éternelle, Ich eile fort, ihr ew’ges Licht zu trinken».[19] Le traducteur du poème, Sadakazu Oyama, a traduit cette phrase dans une traduction supplémentaire. L’idée d’un moteur à courant alternatif, l’idée d’un continuum allant du néant à la lumière infinie et éternelle, lui est venue comme un éclair. Il en dessine immédiatement un schéma sur le sable et le montre à son ami. Tesla décrit ainsi son excitation.

> “Alors que je prononçais ces paroles inspirantes, les idées sont apparues comme un éclair de lumière et, en un instant, la vérité a été révélée. J’ai dessiné avec un bâton sur le sable les diagrammes présentés six ans plus tard dans mon discours devant l’Institut américain des ingénieurs électriciens, et mon compagnon les a parfaitement compris. Les images que je voyais étaient merveilleusement nettes et claires et avaient la solidité du métal et de la pierre, à tel point que je lui ai dit: «Voyez mon moteur ici, regardez-moi l’inverser». Je ne peux pas décrire mes émotions. Pygmalion voyant sa statue s’animer n’aurait pu être plus ému. J’aurais donné mille secrets de la nature que j’aurais pu découvrir par hasard pour celui que je lui avais arraché contre toute attente et au péril de mon existence.”[20]

Un jeune homme originaire d’une région rurale de l’Europe de l’Est a finalement résolu un problème difficile qui a tourmenté les ingénieurs en électricité du monde entier. Le catalyseur a été la lumière, la lumière du soleil couchant, la “lumière éternelle”. La lumière, l’étincelle, a brillé dès l’âge de 12 ans. Elle émanait en temps de crise, dans des circonstances désastreuses ou dans une exubérance spirituelle extrême. L’air autour de lui était rempli de langues de flammes vivantes. C’était comme la Pentecôte biblique. Cette lumière, cette chaleur, a atteint son apogée lorsqu’il avait environ 25 ans. Elle a coïncidé avec l’âge de 26 ans, lorsque l’idée d’un

[19] J.W.Gothehe, “Faust”, Der Tragödie Erster Teil, Reclam, 1967.
“Faust”(Version complète tomes 1 et 2) Printed in Japan Amazon.co.jp, 2024.

[20] “Mes inventions”, p. 61.

champ magnétique rotatif lui est venue. Ce flash extraordinaire est l'intuition d'une succession éternelle et infinie de lumières et d'idées.

L'intuition de l'idée du moteur à courant alternatif qui, en philosophie, rappelle l'intuition de Nietzsche de l'idée de l'éternelle récurrence. Les époques coïncident également. S'agit-il d'une simple coïncidence ou d'une fatalité? Il s'agit d'une chaîne historique d'intuitions philosophiques. Nietzsche a eu un jour l'intuition dramatique de l'idée de l'éternel retour à Sils Maria, un lac limpide entouré par les Alpes suisses. Telle semble être la description. Nietzsche a visité Sils Maria pour la première fois en 1881. Il s'y est ensuite rendu chaque été de 1883 à 1888, en séjournant dans une maison. Cette maison existe toujours sous le nom de Maison Nietzsche. La Sils Maria et son paysage environnant ont apporté à Nietzsche la paix de l'esprit, l'inspiration et l'intuition. Cette intuition est considérée comme une intuition historique qui a donné naissance à certaines des œuvres les plus célèbres de Nietzsche, notamment "Ainsi parlait Zarathoustra", "L'Antéchrist" et "Le Crépuscule des idoles". Oui, l'idée de l'alternateur de Nikola était également une intuition et une découverte historique à cette époque.

Quelle est donc cette étincelle, cette énergie de l'intuition? La psychologie, la médecine et la philosophie conventionnelles ne peuvent pas l'expliquer. Les médecins ont souvent vu Tesla, mais ils ne pouvaient pas l'expliquer. Aujourd'hui encore, il existe des théories, comme l'épilepsie, qui expliquent les expériences inhabituelles de Tesla, mais elles ne sont pas suffisantes. De même, l'énergie ne peut être expliquée. Ma philosophie du néant et de l'amour peut l'expliquer. Quelle est l'énergie de l'étincelle, de l'intuition? C'est l'énergie du néant, l'énergie de la vie au-delà des mots qui remplit l'univers. Lao Tseu, philosophe chinois de l'Antiquité, a un jour qualifié le flux de la vie à travers toutes les choses de Dao, le Grand, l'Un, ou le néant, parce qu'il transcende les mots.

Ce néant est le flux de vie qui imprègne toutes les choses de l'univers, que la physique moderne appelle le flux des atomes et des particules. En d'autres termes, le néant a acquis son fondement scientifique grâce à la théorie quantique de Niels Bohr. Le néant est l'énergie cosmique, y compris l'énergie inconnue, la matière noire, l'énergie sombre ou l'éther d'Aristote. Tesla a également compris cette énergie cosmique, et nous pouvons trouver des descriptions de l'énergie cosmique ici et là. Les éclairs d'inspiration et d'intuition de Tesla et de Nietzsche, qui étaient auparavant considérés comme un mystère, ont été clarifiés. La source créatrice de Tesla est en effet le néant, l'énergie du néant. La compréhension de Tesla aurait dû aller au-delà de l'histoire de la science, de la technologie et de la biographie pour atteindre le domaine de la philosophie comme Aristote.

III APHORISME

Tesla étant un inventeur physique, il n'a pas écrit de livres systématiques comme Kant ou Hegel. Cependant, nous avons beaucoup à apprendre de lui grâce à son autobiographie et à ses autres écrits, qui brillent encore de mille feux. Il est comme Pascal, Nietzsche ou les Proverbes bibliques. Ses caractéristiques sont les suivantes.

1. Nietzschéen sans système, avec de nombreuses contradictions, sur les phénomènes surnaturels

Comme il n'y a pas de système, "Mes inventions" sont difficiles à comprendre. Le Japonais Masaaki Shindo résume grossièrement la pensée de Tesla dans "Words of Genius: Nikola Tesla», Masaaki Shindo résume grossièrement la pensée de Nikola comme suit:[21]

Chapitre 1: Sur les inventions et les idées
Chapitre 2: Sur l'interaction
Chapitre 3: Le sans-fil
Chapitre 4: Inventions et prophéties
Chapitre 5: Sur l'énergie, etc.
Chapitre 6: De la science
Chapitre 7: Rivaux, amis et partisans
Chapitre 8: Famille, amour et ville natale
Chapitre 9: La vie spirituelle
Chapitre 10: Considérations philosophiques et civilisationnelles
Chapitre 11: Problèmes sociaux, etc.

Dans "Mes inventions", l'autobiographie de Tesla, certaines parties sont mélangées en termes de période, même si Tesla lui-même les a écrites dans ses propres souvenirs.

Par exemple, l'incident du jeu est mentionné dans "Mes inventions", dans la section 1. 'My Early Life' (p. 37), qui décrit sa vie à partir de l'âge de 8 ans, et il semble qu'il ait été accro au jeu dans sa jeunesse. En réalité, il s'agit de l'histoire de son entrée à l'université de Graz, où il a commencé à travailler sur une idée de moteur à courant alternatif. Puis il a été frustré. D'autres choses diverses se chevauchent et sont souvent difficiles à comprendre. En particulier, les descriptions d'hallucinations, de visions, d'hallucinations auditives et de sensations inhabituelles soulèvent des questions de véracité scientifique et objective.

Et si Tesla écrit librement, il y a des omissions et des sauts. Ces "Mots du génie Nikola Tesla" facilitent cette compréhension. Dans un sens, il s'agit de la meilleure introduction à Tesla, avec "The Unknown Genius Nikola Tesla".[22] Chaque chapitre mérite d'être exploré mais doit être limité pour des raisons d'espace.

D'une part, Tesla remet en question les faits et les vérités objectives et, d'autre part, il est charismatique lorsqu'il s'agit d'inventions et de prophéties, prédisant les robots intelligents et l'IA (automates) il y a 120 ans. Parfois, il est un visionnaire, une hallucination, et parfois, il est une prophétie qui transcende l'âge de 100 ans et joue avec les extrêmes.

Tout d'abord, il y a la contradiction des points de vue sur le surnaturel.

Il a écrit sur son expérience surnaturelle de voir l'image de sa mère au moment de sa mort dans un rêve au même moment.

21 "Paroles du génie Nikola Tesla", préface.

22 Masaaki Shindo, "Le génie inconnu Nikola Tesla", Heibonsha, Tokyo, 2015.

> "Pendant de nombreuses années, je me suis efforcé de résoudre l'énigme de la mort et j'ai guetté avec impatience toute sorte d'indication spirituelle. Mais une seule fois au cours de mon existence, j'ai vécu une expérience qui m'a momentanément semblé surnaturelle. C'était au moment du décès de ma mère. J'étais complètement épuisé par la douleur et une longue vigilance, et une nuit j'ai été transporté dans un immeuble à environ deux pâtés de maisons de notre maison. Alors que j'étais là, impuissant, je pensais que si ma mère mourait alors que j'étais loin de son lit, elle me ferait sûrement signe… Car ma mère était une femme de génie et excellait particulièrement dans le pouvoir de l'intuition. Pendant toute la nuit, toutes les fibres de mon cerveau furent tendues par l'attente, mais rien ne se produisit jusqu'au petit matin, lorsque je m'endormis, ou peut-être m'évanouis, et vis un nuage portant des figures angéliques d'une merveilleuse beauté, dont l'une regardait sur moi avec amour et a progressivement pris les traits de ma mère. L'apparence a lentement flotté à travers la pièce et a disparu, et j'ai été réveillé par une chanson indescriptiblement douce à plusieurs voix. À cet instant, une certitude qu'aucun mot ne peut exprimer m'est venue: ma mère venait de mourir. Et c'était vrai."[23]

Dans son rêve, le visage de sa mère, aussi beau que celui d'un ange, apparaissait. Sa silhouette traversa la pièce puis disparut. Et Tesla s'est réveillé au son d'un doux chant. A ce moment-là, il était convaincu que sa mère était morte. Et c'était effectivement vrai. Tesla croit à ce phénomène surnaturel. Mais c'est une exception.

Ce qui suit est une description négative du phénomène surnaturel.

> "Une observation déficiente n'est qu'une forme d'ignorance et est responsable des nombreuses notions morbides et idées stupides qui prédominent. Il n'y a pas plus d'une personne sur dix qui ne croit pas à la télépathie et aux autres manifestations psychiques, au spiritualisme et à la communion avec les morts, et qui refuserait d'écouter des trompeurs, volontaires ou involontaires."[24]

Durant cette période, les phénomènes psychiques sont devenus populaires parmi de nombreuses personnes en Europe et aux États-Unis.

C'est pourquoi les gens de la Ford Motor Company ont formé une société psychologique et lui ont demandé de les aider à y adhérer, mais Tesla a refusé.

> "Cela s'est produit il y a longtemps et je n'ai jamais eu la moindre raison de changer d'avis sur les phénomènes psychiques et spirituels, pour lesquels il n'y a absolument aucun fondement. La croyance en cela est le résultat naturel du développement intellectuel. Les dogmes religieux ne sont plus acceptés dans leur sens orthodoxe, mais chaque individu s'accroche à la foi en un pouvoir suprême, quel qu'il soit. Nous devons tous avoir un idéal pour gouverner notre conduite et assurer notre contentement, mais peu importe qu'il s'agisse d'un idéal de croyance, d'art, de science ou de quoi que ce soit d'autre, tant qu'il remplit la fonction d'une force dématérialisée. Il

[23] "Mes inventions", p. 104.

[24] "Mes inventions", p. 103.

> est essentiel à l'existence pacifique de l'humanité dans son ensemble qu'une conception commune prévale."[25]

Ses sentiments pour sa mère étaient ressentis par sa mère, qui voulait aussi voir Tesla. Il est à noter qu'une télépathie existait entre les deux sentiments. C'est une affirmation du surnaturel. En revanche, à la fin de «Mes Inventions», il nie l'existence de ce phénomène, affirmant qu'il n'existe aucune preuve. C'est une contradiction. Tesla, qui nie les phénomènes surnaturels, est, en un sens, matérialiste et centré sur la substance. Par conséquent, sa cosmologie est aussi une cosmologie inorganique et matérialiste.

2. Cosmologie mécaniste

Pour Tesla, l'univers n'est rien d'autre qu'une machine géante sans début ni fin. Les humains sont des machines au même titre que l'univers. Ce qui nous vient à l'esprit et détermine nos actions sont des réponses directes et indirectes à des stimuli agissant de l'extérieur sur nos organes sensoriels. Puisque le corps humain est de structure similaire et identique dans son environnement, nous réagissons de la même manière à des stimuli similaires, et c'est de l'unité de ces réponses que naît la compréhension.

Au fil du temps, des mécanismes infiniment complexes évoluent. Mais ce que nous appelons âme ou esprit n'est qu'un ensemble de fonctions corporelles. Lorsque la fonction prend fin, l'âme ou l'esprit prend également fin.[26]

Le texte suivant est également une description du dualisme depuis Descartes et parle de la situation philosophique.

> "Dans une de ces notices biographiques, publiée dans ELECTRICAL EXPERIMENTER. J'ai insisté sur les circonstances de ma jeunesse et j'ai parlé d'une affliction qui m'a obligé à un exercice incessant d'imagination et d'auto-observation. Cette activité mentale, d'abord involontaire sous la pression de la maladie et de la souffrance, est progressivement devenue une seconde nature et m'a finalement amené à reconnaître que je n'étais qu'un automate dépourvu de libre arbitre dans la pensée et l'action et simplement sensible aux forces de l'environnement. Nos corps ont une structure si complexe, les mouvements que nous effectuons sont si nombreux et complexes, et les impressions externes sur nos organes sensoriels sont si délicates et insaisissables qu'il est difficile pour une personne moyenne de comprendre ce fait. Et pourtant, rien n'est plus convaincant pour le chercheur expérimenté que la théorie mécaniste de la vie qui avait été, dans une certaine mesure, comprise et proposée par Descartes il y a trois cents ans. Mais à son époque, de nombreuses fonctions importantes de notre organisme étaient inconnues et, notamment en ce qui concerne la nature de la lumière et la construction et le fonctionnement de l'œil, les philosophes étaient dans l'obscurité."[27]

25 "Mes inventions", p. 105.

26 Nikola Tesla raconté à George Sivester Viereck, A Machine to End War, Liberty, Ferbruray 1935. Cf. "Paroles du génie Nikola Tesla", Masaaki Shindo, p. 175.

27 "Mes inventions", pp. 101–102.

L'homme, comme l'univers, est une machine. Il s'agit là d'un dualisme typique d'origine cartésienne. L'homme n'est qu'une machine automatique qui réagit aux forces de son environnement. De nombreuses fonctions importantes de notre organisme sont inconnues et le philosophe était dans le flou, notamment en ce qui concerne la nature de la lumière ainsi que la structure et le fonctionnement de l'œil. Pour Tesla, le philosophe était dans le flou quant à la relation entre le corps, l'esprit et le monde. L'homme n'est qu'une marionnette mécanique automatique soumise aux stimuli de l'environnement. Cette description correspond à la théorie de Bergson du corps comme mécanisme sensori-moteur. Tesla reste ici. C'est donc la représentation de la marionnette mécanique automatique. Henri Bergson (1859–1941) va cependant plus loin et place le corps au centre de son action. La théorie de Bergson n'est pas seulement influencée par son environnement et le monde, mais elle agit également de manière proactive. La pensée en action est le mouvement de l'énergie. Bergson a surmonté ce dualisme existant depuis Descartes. Tesla n'a pas rencontré Bergson mais il a accepté les vues de Jagadish Chandra Bose (1858–1937), physicien et biologiste considéré comme le père de la science indienne, qui abordait une vision organique de l'univers. C'est grâce à un nouvel appareil appelé "crescographe"[28] que les plantes, comme les animaux, possèdent des nerfs et sont vivantes. Les minéraux réagissent et se développent également de la même manière que les animaux et les plantes. C'est une affirmation selon laquelle toutes choses sont vivantes.[29] Tesla, qui a découvert les rayons X avant Wilhelm Conrad Röntgen (1845–1925), a reconnu l'existence des rayons cosmiques et des microparticules. Il renversa donc la cosmologie inorganique et développa la théorie de l'énergie par particules cosmiques, la cosmologie organique.

3. Cosmologie Organique

Je crois que l'univers en expansion a été créé à partir du néant et que son énergie motrice est l'énergie du néant. Cette énergie est l'énergie vitale, le flux brut de la vie qui traverse toutes choses, comme le décrit Lao Tseu dans la Chine ancienne. Cette énergie vitale est une énergie organique qui remplit l'univers. La physique le comprend comme les atomes, les quarks, les neutrinos, ainsi que le flux et le mouvement des fines particules.

[28] crescographie:
Patric Geddes, "An Indian Pioneer of Science: The Life and Work of Sir Jagadis C. Bose", Longmans, Green, and Co, London, 1920, version japonaise intitulée "Father of Indian Science Bose", traduite par Masaaki Shindo, Kosakusha, Tokyo, 2009.
Le crescographe est une loupe étonnante que Bose a conçue pour observer les changements dans les matériaux et les organismes vivants dans le monde microscopique. Il est capable de grossir d'un facteur d'environ 10 millions. Les microscopes électroniques actuels grossissent environ 1 million de fois. Cela a confirmé que les plantes sont également sensibles à la fatigue et à la récupération, même si l'on pensait jusqu'à présent qu'elles n'étaient pas aussi sensibles que les animaux. Cette découverte a été étendue aux métaux et aux minéraux, et il a été confirmé que les métaux et les minéraux sont également sensibles à la fatigue. Bose, qui a fait cette découverte, est considéré comme le père de la science indienne. Il est devenu membre du Comité de la coopération interculturelle de la Société des Nations, aux côtés d'Einstein et d'autres, et s'est consacré à l'amélioration du statut scientifique de la culture indienne. Il a impressionné de nombreuses personnes, dont les grands écrivains Romain Rolland et Bergson. Bergson a entendu la conférence de Bose à la Sorbonne et a écrit les mots suivants: «La nature a été forcée de révéler enfin le secret qu'elle avait jalousement gardé». La vision organique de l'univers de Bose a influencé Tesla.
Cf.http://overfourth.com/wp-content/uploads/2016/06/cb99295f7f842ad-63de7318534369f92.pdf

[29] "Paroles du génie Nikola Tesla", pp. 178–179.

La description de l'énergie cosmique, fortuite ou inévitable, est cohérente avec ma théorie de l'énergie. Cela doit être l'imbrication de l'intuition philosophique.

Tesla décrit également l'énergie cosmique comme suit:

> "L'énergie remplit l'univers. Est-ce statique ou dynamique? Si c'est statique, il ne sert à rien d'espérer. S'il est dynamique (et il l'est sûrement), il ne faudra pas longtemps avant que l'homme soit capable de mettre les machines dans leur engrenage naturel."[30]

"Une fois, j'ai fait fonctionner une unité de puissance utilisant des rayons cosmiques. La recherche sur les rayons cosmiques est un sujet qui me tient beaucoup à cœur. J'ai été le découvreur de ce type de rayonnement, je ressens donc naturellement une parenté avec lui.Au fur et à mesure que mes recherches sur la théorie des rayons cosmiques progressaient, j'ai découvert qu'elles étaient entièrement justifiées.[31]

"Nous avons appris cette vérité, même si les plantes ne réalisent pas elles-mêmes qu'elles vivent, ressentent, combattent et souffrent, au contraire, nous avons découvert que même les substances dites inorganiques et considérées comme non vivantes réagissent à des stimuli, et il existe des preuves indubitables que le principe de vie est à l'œuvre.

Ainsi, toute matière existante, qu'elle soit organique ou inorganique, vivante ou non, est sensible aux stimuli externes. Il n'y a aucune différence entre eux, aucune rupture de continuité, aucun facteur de vie particulier. Toute matière est régie par les mêmes lois et l'univers tout entier est vivant."[32]

Le concept d'énergie cosmique de Tesla se résume dans "l'univers entier est vivant" et "l'univers organique".

Il s'agit d'une part d'une cosmologie inorganique et d'autre part d'une cosmologie organique. Et d'un côté, il nie le surnaturel, tout en l'affirmant. Du point de vue de la logique traditionnelle, c'est une contradiction. C'est la coexistence de la négation et de l'affirmation. C'est ce qui rend la pensée de Tesla si difficile à comprendre. C'est la coexistence de contradictions. C'est extrêmement proche de Nietzsche. La logique traditionnelle ne l'acceptait pas. Par conséquent, il n'a pas été largement accepté. Cependant, ma logique du néant transcendant, qui reconnaît la coexistence de contradictions, surmonte cette contradiction.

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30 Nikola Tesla, Experiments with Alternate Currents of High Potential and High Frequency, delivered before the Institution of Electrical Engineers, Londres, February 1892. Cf. "Paroles du génie Nikola Tesla", pp. 114–115.
L'idée que "l'énergie remplit l'univers" est totalement compatible avec la théorie de l'énergie de ma cosmologie, "On the Synthesis of the Theory of Relativity and Quantum Theory" (2008, World Congress of Philosophy, Seoul National University). Cet article est inclus dans mon livre "New Horizon of Sciences by the Principle of Nothingness and Love", Lambert Academic Publishing, 2012, Germany.

31 Nikola Tesla, Nikola Tesla's Radiant Energy System, Brooklyn Eagle, 10 juillet 1932. Voir "Paroles du génie Nikola Tesla", p. 115.

32 How Cosmic Forces Shape Our Desstinies ("Did the War Cause the Italian Earthauake?") New York American, 7 February 1915.
Voir "Paroles du génie Nikola Tesla", p. 177.

4. Logique du néant transcendant

Cela ne peut pas s'expliquer par la loi européenne de la contradiction, l'interprétation aristotélicienne traditionnelle. Habituellement, c'est oui ou non, A ou B. Cela ne permet pas la coexistence de A et B. C'est soit noir ou blanc. D'après cette logique, la contradiction de Tesla est incompréhensible. Est-ce un univers inorganique ou un univers organique? Cependant, cela peut s'expliquer par la logique du néant ou du néant transcendant, sur laquelle j'insiste. Si je dis que oui, cela existe ; si je dis que ce n'est pas le cas, cela n'existe pas. Nous ne pouvons pas dire que c'est le cas et que cela n'existe pas. La logique qui transcende l'existence est la logique du néant transcendant. Noir ou blanc. Nous avons toujours pensé que ces deux choix étaient la vérité. Cependant, les couleurs entre le blanc et le noir sont des variations de gris. Le gris est blanc quand on parle de blanc et le noir quand on parle de noir. Il existe un nombre infini de couleurs entre les deux. Le néant transcendant reconnaît une telle double coexistence. À l'inverse, la théorie conventionnelle était une perception limitée et étroite. Le blanc et le noir sont les couleurs limitées des couleurs infinies. La couleur infinie est le tout et le blanc et le noir ne sont que des couleurs partielles. Il en va de même pour notre perception: l'univers infini est le tout, et l'univers que nous percevons n'est qu'un univers limité. L'univers que nous percevons est avant tout l'univers matériel. L'univers qui peut être confirmé matériellement est l'univers inorganique (matériel). Au-delà de cela, l'univers qui ne se limite pas à la matière, le royaume invisible, l'univers matériellement indiscernable, est le tout. L'univers organique est le tout et l'univers inorganique (matériel) est la partie. Tesla, tout en héritant de la cosmologie inorganique (matérielle), a dû appréhender l'univers organique à sa manière, en se référant à la théorie de Bose. Dans un sens, cela recoupe la théorie quantique. C'était une intuition simultanée de la théorie quantique, tout comme le géologue et physicien atomique russe Vladimir Vernardsky[33] (1863–1945). Cependant, du point de vue du néant transcendant, la contradiction peut être reconnue.

D'une part, Tesla nie les phénomènes surnaturels, mais d'autre part, il admet et décrit des phénomènes surnaturels. Il a dit que le rêve de la mort de sa mère et la mort réelle de sa mère étaient simultanés. La coexistence de la négation et de l'affirmation s'explique par la logique du néant transcendant. Kitaro Nishida, un grand de la philosophie japonaise, a qualifié cette logique d'identité de soi de contradictions absolues. Mais comme c'est difficile à comprendre, j'appelle cela le néant transcendant. Cette logique élargit notre compréhension de Tesla.

IV LE CRÉATEUR ET LE DESTRUCTEUR

Tesla est l'inventeur, le créateur mais il est le destructeur de l'ancien existant.

Cela se rapproche de la théorie de la valeur de Nietzsche. Nietzsche aussi, dans son "Ainsi parlait Zarathoustra", dit que Zarathoustra est le créateur de nouvelles valeurs et le destructeur des anciennes valeurs. Le père de Nietzsche était également pasteur.

[33] J'ai démontré que Vernacky a établi lui-même la théorie quantique indépendamment de Niels Bohr (1885 - 1962) dans "Organic Cosmology of Vernadsky and Asian Philosophies", International Scientific Assembly, Moscow State University, October 2023.

Nietzsche a souffert toute sa vie de maux de tête et d'ophtalmie, comme Tesla. Il s'agit d'une rencontre avec le néant de l'épreuve et de la difficulté.

Tesla est un créateur en ce sens qu'il a donné naissance à de nombreuses inventions, mais il est au contraire un destructeur de vieux appareils.

1. Création et Invention

On ne peut pas trop écrire à ce sujet. L'invention du moteur à courant alternatif, déjà évoquée, la centrale hydroélectrique de Niagara, l'ampoule fluorescente, la turbine Tesla et le système de communication, notamment le système de communication global, qui communique avec le monde en un instant et qui fut le précurseur d'Internet. Les téléphones portables, qui sont censés être des téléphones intelligents. Des hélicoptères et des robots radiocommandés, des robots dotés d'une intelligence artificielle, pour ainsi dire. Ces idées existent depuis plus de 100 ans. Il avait une vision négative de l'énergie atomique. C'est un aspect de Tesla en tant que créateur. D'un autre côté, sa bonté en fait également une arme mortelle.

2. Destruction

2.1. Machine sismique artificielle

En 1894, il installe une machine qui provoque des vibrations dans les poutres de son laboratoire. Lorsqu'il a allumé la machine, le bâtiment a immédiatement vibré. Tesla sentit le danger, il détruisit immédiatement la machine. Les vibrations se sont propagées au quartier et des policiers sont arrivés. La machine ayant déjà été détruite, il n'était pas soupçonné d'avoir endommagé des biens. Les expérimentations créent parfois un danger pour le quartier. Il semblerait que les voisins le regardaient aussi comme s'il menait d'étranges recherches. Les grandes inventions sont soutenues par le danger. Les expériences sur les phénomènes de décharge électrique, bien que théoriquement sûres, sont en réalité extrêmement dangereuses. L'invention de la dynamite d'Alfred Nobel (1833–1896) a également perdu son frère dans une explosion. Dans une étude récente sur les diodes électroluminescentes bleues, Shuji Nakamura,[34] lauréat du prix Nobel de physique (2014) a été témoin d'une explosion environ tous les deux mois dans son laboratoire. C'était une recherche mettant sa vie en danger.

2.2. La méthode de bissection et de destruction de la Terre

C'est une méthode très effrayante. Tout d'abord, il faut s'émerveiller devant la découverte de l'oscillation libre terrestre[35] y Tesla. La Terre bouge et la Terre elle-

[34] Dans mon article 'Organizational Entrepreneurship-Management Philosophy of a Local Company in Japan', j'ai discuté de l'invention de Shuji Nakamura. Cet article est inclus dans mon livre "Nothingness and Love of Japanese Philosophy", Lambert Academic Publishing, 2020, Germany.

[35] Free oscillations of the earth, Heibonsha's «New World Encyclopedia», https://kotobank.jp/word/%E5%9C%B0%E7%90%83%E8%87%AA%E7%94%B1%E6%8C%AF%E5%8B%95-1184602
Géodésie. Société géodésique du Japon.
https://geod.jpn.org/web-text/part3_2005/nawa/nawa-1.html

même se dilate et se contracte également à certains intervalles de temps. Un cycle de contraction et d'expansion en forme de boule dure environ 20 minutes. Cela a été officiellement observé lors d'un énorme tremblement de terre au Chili en 1964. Tesla avait découvert l'oscillation libre de la Terre en 1912. Il a fixé la période d'oscillation à 1 heure et 49 minutes. Si une grande quantité d'explosifs explosait juste avant la contraction, une énorme oscillation se produirait. Si cela se répétait suffisamment de fois, la terre finirait par se briser en deux. Cette histoire ressemble à un roman scientifique. Aujourd'hui, cependant, les inquiétudes concernant les inversions géomagnétiques et les collisions avec des corps célestes ont fait que cela soit loin d'être un fantasme.

2.3. Contrôle météorologique

L'utilisation de l'énergie radio pour modifier les conditions atmosphériques afin de créer des ouragans, des tornades, des pluies torrentielles, etc. afin d'infliger des dégâts aux nations ennemies. Si elles sont utilisées efficacement, des pluies et des chutes de neige artificielles peuvent être rendues possibles, ce qui présente un grand bénéfice pour l'agriculture.

2.4. Armes à faisceaux de particules et murs de force imprenables

Il était une fois, sous l'administration du président américain Ronald Reagan, l'Initiative de défense stratégique (IDS). Le SDI était une stratégie visant à intercepter les missiles nucléaires de l'ex-Union soviétique des systèmes satellitaires en orbite autour de la Terre. Il est également connu sous le nom de programme Star Wars. Il s'agit d'un "système d'interception pré-territoriale» utilisant des armes laser. Tesla est l'un des premiers à adopter cette idée. Il n'a pas utilisé les lasers car ils sont diffus mais a inventé les faisceaux de particules. Il s'agit d'un faisceau de particules d'électrons et d'autres petites particules accélérées à ultra-haute vitesse et rayonnées pour détruire la cible.

> "Mon appareil est capable de projeter des particules relativement grosses, ou des particules dimensionnelles microscopiques, et de transporter des milliards de fois l'énergie d'un rayon de lumière sur une petite zone très, très éloignée. Ainsi, des milliers de chevaux-vapeur d'énergie sont transférés par un jet plus fin qu'un cheveu, et rien ne peut lui résister."[36]

Un tel faisceau créerait un dôme à toute épreuve (Tesla Dome).

> "Mon invention nécessite de vastes installations industrielles, mais une fois installée, elle détruira tout ce qui s'approche dans un rayon de 200 milles, qu'il s'agisse d'un homme ou d'une machine. Ce dispositif constituera un mur de force qui sera invincible contre toute attaque efficace."[37]

Vibrations libres de la terre à intervalles réguliers
https://www.britannica.com/science/earthquake-geology/Methods-of-reducing-earthquake-hazards

36 Nikola Tesla raconté à George Sylvester Viereck, A Machine to Endo War, Liberty, février 1935. Voir "Paroles du génie Nikola Tesla", p. 108.

37 Nikola Tesla raconté à George Sylvester Viereck, A Machine to Endo War, Liberty, février 1935. Voir "Paroles du génie Nikola Tesla", p. 107–108.

Cette destruction ne concerne pas seulement les machines industrielles mais, selon la manière dont elles sont utilisées, les armes de destruction massive ainsi que la dynamite du passé. Il était bien conscient de ce danger.

> "Ce n'est pas seulement la tête mais aussi le corps qui fait de nous des humains. C'est à la fois la tête et le corps. La vertu et la faiblesse sont inséparables, comme la puissance et la masse. S'ils étaient séparés, l'homme cesserait d'être un homme."[38]

3. Réflexions sur la paix

Tesla, en pensant à sa contribution à l'humanité par l'invention scientifique, pense naturellement à la paix. Tesla, qui a voulu créer les inventions infinies et éternelles à partir du néant, se déplace avec l'amour de l'humanité, qui est la paix.

Il s'agit des éléments suivants:

3.1. Préoccupation pour l'état des organisations internationales

> "Il est particulièrement regrettable qu'une politique punitive ait été adoptée lors de l'élaboration des conditions de la paix, car dans quelques années, les nations pourront se battre sans armées, sans navires et sans canons, avec des armes bien plus terribles, dont l'action destructrice et la portée n'ont pratiquement aucune limite. Une ville, à quelque distance que ce soit de l'ennemi, peut être détruite par lui et aucune puissance sur terre ne peut l'en empêcher. Si nous voulons éviter une calamité imminente et un état de choses qui pourrait transformer ce globe en un enfer, nous devons pousser le développement des machines volantes et de la transmission sans fil de l'énergie sans délai et avec toute la puissance et les ressources de la nation".[39]

3.2. Opposition à l'égoïsme national Pas d'Amérique d'abord, pas de Chine d'abord

> "Ce que nous souhaitons le plus aujourd'hui, c'est un contact plus étroit et une meilleure compréhension entre les individus et les communautés partout dans le monde, et l'élimination de cette dévotion fanatique à des idéaux exaltés d'égoïsme et d'orgueil nationaux, qui est toujours susceptible de plonger le monde dans la barbarie et les conflits primitifs. Aucune ligue, aucun acte parlementaire d'aucune sorte n'empêchera jamais une telle calamité. Il n'y a que de nouveaux moyens de mettre les faibles à la merci des forts".[40]

3.3. Rêve de paix mondiale

> "Je me demande si le rêve de la paix dans le monde se réalisera un jour. Espérons que ce sera le cas. Lorsque la lumière de la science dissipera toutes les ténèbres, lorsque les anciennes nations seront unies, lorsque le

[38] Nikola Tesla, Problem of increasing human energy, 1900. Cf. "Paroles du génie Nikola Tesla ", p. 191.

[39] "Men inventions ", p. 110.

[40] Mes inventions, p. 101.

> patriotisme sera identique à la religion, lorsqu'il y aura une seule langue, une seule nation et un seul but, alors le rêve deviendra réalité. "[41]

Il est extrêmement difficile pour les nations du monde de devenir une, d'avoir une seule langue et une seule religion, mais nous aimerions hériter de son souhait de paix.

V CONCLUSION

1. Tout être humain rencontre des difficultés, des épreuves et le néant. Même la super élite connaît les épreuves du deuil et de la mort des membres de la famille proche. À une autre époque, le Bouddha menait une vie aisée en tant que prince. Il avait une femme, un enfant, une richesse princière et un statut social. Cependant, lorsqu'il sortit de chez lui et rencontra des personnes âgées, des malades et des cortèges funèbres, il réalisa que lui aussi finirait par vieillir, tomber malade et mourir. Afin de surmonter ce vide, il a été ordonné prêtre, s'est engagé sur la voie de l'ascétisme et a atteint l'illumination. L'épreuve, l'expérience du néant, a ouvert la voie à la création d'une vie de lumière.
   La rencontre de chaque être humain avec le néant est une chance pour la création et l'invention.
   L'IA ne connaît pas ces épreuves, ces difficultés, ces ténèbres et ce néant. Cela signifie que la véritable création et l'invention sont impossibles.Tesla a pu créer et inventer parce qu'il souffrait du choléra, de maux de tête et d'hallucinations.

2. Il regrettait lui-même de ne pas avoir été vu par un psychologue ou un psychiatre professionnel pendant ses années à Budapest, bien qu'il ait consulté des médecins à l'occasion. Je pense que ces symptômes étaient dus à un déséquilibre entre le corps et l'esprit. Comme il était physicien et ingénieur, il n'y a aucune preuve d'interaction avec des psychologues ou des philosophes en ce qui concerne "Mes inventions". Sa période de vie a coïncidé avec celle de géants intellectuels tels que Friedrich Wilhelm Nietzsche (1844-1900), Sigmund Freud (1856-1939), Bergson (1859-1941) et Edmund Husserl (1859-1938). Il a rencontré Edison, mais pas ces philosophes. Hypothétiquement, s'il les avait rencontrés, il aurait peut-être trouvé des remèdes différents. Freud est particulièrement intéressant d'un point de vue psychiatrique, puisqu'ils sont nés la même année et ont fréquenté les mêmes universités, Graz et Vienne. Quant à Bergson, il avait 23 ans lorsque Tesla était à Paris et en était à ses années d'apprentissage, il n'y avait donc aucune raison de le rencontrer, mais il a écrit "Matière et mémoire" en 1896, qui traite de l'esprit et du corps. Bergson y traite principalement de l'aphasie et de l'équilibre entre la mémoire et le psychisme. Il y introduit la mystique de la psyché et de la mémoire en discutant des états anormaux, de la mémoire augmentée par le rappel rapide des souvenirs passés, et du rappel des souvenirs déjà vus (déjà vu) même si on ne les a jamais vus auparavant. La mémoire de Bergson devient finalement réalité en tant que flux de vie, énergie, ou ce que j'appelle l'énergie du néant, qui est compatible avec l'énergie cosmique de Tesla.
   Cette énergie cosmique imprègne et influence toutes choses. Cette énergie est le flux de la vie et est donc la source de la vie, de l'alimentation et même de la matière. Jusqu'à récemment, il y avait un grand fossé entre la matière et la

[41] Nikola Tesla, Problème de l'augmentation de l'énergie humaine, 1900. Cf. "Paroles du génie Nikola Tesla", p. 190.

vie. Les métaux et les minéraux, par exemple, n'étaient pas considérés comme biologiquement sensibles. Cependant, sous l'influence de Bose, que l'on appelle le père de la science indienne, Tesla a adopté la position selon laquelle les métaux et les minéraux réagissent et montrent la même sensibilité que les organismes vivants. Bose a découvert les réactions biologiques des métaux, des animaux et des plantes. En outre, il a soutenu que toutes les choses sont imprégnées de vie. Comme nous l'a dit Lao Tseu, toutes les choses ont une vie. Mon énergie du néant, la cosmologie, a été démystifiée par Bose et soutenue par Tesla, le génie de l'invention. Tesla et Bergson ne se sont jamais rencontrés, mais Bose et Bergson se sont rencontrés. Bergson a entendu et apprécié les conférences de Bose vers la fin de sa vie. Je suppose que Bergson aurait pu apprécier ma philosophie. Ma philosophie et ma cosmologie sont soutenues par le théoricien quantique Niels Bohr, le physicien et géologue russe Vernardsky, le physicien et physiologiste Bose, Tesla et Bergson. Les travaux de Tesla ont renforcé la diffusion et les fondements de ma philosophie. En ce qui concerne la cosmologie, je déclare la victoire de la Biocosmologie, de l'Association de Biocosmologie dans le monde.

3. Le deuil et la guerre sont des tragédies qu'il convient d'éviter, et il faut s'efforcer de les éviter. Cependant, les décès individuels sont indépendants de notre volonté. Dans le cas de la guerre aussi, ce sont les dirigeants qui la déclenchent, et une fois qu'elle a eu lieu, il n'y a pas d'autre choix que d'appeler au cessez-le-feu. La mort, la guerre, est toujours une leçon douloureuse à apprendre, mais il faut la supporter. Mais après l'endurance, un nouveau monde s'ouvre. En ce qui concerne la cosmologie, je déclare la victoire de la Biocosmologie, de l'Association de Biocosmologie dans le monde.

4. L'existence de Tesla nous enseigne comment réagir judicieusement à l'IA. Tesla, l'inventeur historique de l'humanité, a prédit la société Internet d'aujourd'hui et la diffusion de l'IA il y a 120 ans. Il y a une difficulté indescriptible. Ce serait manquer de perspicacité que de dire que l'IA est au-delà de la créativité humaine, parce que l'IA est basée sur de telles difficultés existentielles. L'IA peut certainement nous apporter de la commodité et réduire le travail. Cependant, elle ne remplace pas le contrôle de l'homme sur le monde. Ce qui compte, c'est la manière dont l'IA est utilisée. Si elle offre commodité et abondance, elle peut aussi s'avérer très coûteuse si elle n'est pas utilisée correctement.

5. Lorsque vous donnez à l'IA le pouvoir d'utiliser la force militaire, un seul faux pas peut entraîner la chute de la race humaine. La commodité et le danger sont les deux faces d'une même pièce. Comme la commodité d'une voiture, elle est pratique, mais si elle se trompe, c'est une arme mortelle. L'humanité doit être consciente de cette situation: Les capacités de l'IA peuvent s'approcher de l'homme, mais en principe, elles ne peuvent pas le dépasser. La capacité de l'IA à s'approcher des humains est possible, mais en principe elle ne peut pas les dépasser, parce que l'IA ne peut pas faire l'expérience de la souffrance existentielle ou du néant. La rencontre de la souffrance et du néant est un continuum vers l'infini, l'éternité, l'être transcendant et l'amour. C'est le symbole de la dignité humaine.

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Das éticas teleológicas às éticas deontológicas: segundo Aristóteles, Epicuro e Stuart Mill

Summary

From the theological ethics to the deontological ethics, according to the Aristotelical and Epicur and Stuart Mill.
There are different points view according to the general ethics. But we can know a loto of perspectivs and principles by different autors to Philosophy History. One thing is a teleological and another thing is a deontological ethics from Aristoeles to Epicur. It´s very important to define a new foundations to ethics by the diferente theories of morality, and defines the sense of ypour foundations.

Keywords: **Aristotelica, Epicir and Stuart Mill ethics, teleology and deontology.**

INTRODUÇÃO

A corrente da *Ética normativa* é a mais antiga e entende por ética «a *realização da vida boa*, da vida feliz, o *ajustamento a normas especificamente humanas*, e, inclusivamente no nosso tempo, a *aptidão para a solução pacífica de conflitos*, seja em grupos reduzidos, a nível nacional ou no âmbito da humanidade».[1] As acções são boas em função de um *telos*, de um *fim* que se pretende alcançar.

[1] CORTINA, A. – *Ética mínima. Introducción a la filosofia prática*. 4ª Ed. Madrid: Editorial Tecnos, 1994, p. 110.

Encontram-se éticas teleológicas na Grécia antiga, onde a figura mais notável foi Aristóteles com o seu *eudemonismo*, (bom espírito).[2] Para este autor o bem é o bem-estar do espírito, sem negar o valor do bem-estar do corpo. Outra ética teleológica encontra-se em Epicuro com o seu *hedonismo* (*hédoné*, prazer). Para este autor o bem é o prazer, sem que isso signifique que defendia uma vida libertina porque o que ele recomendava eram os prazeres da amizade e da tranquilidade.[3]

Também encontramos no Cristianismo uma ética teleológica: Deus é o objecto felicitante.[4] O fim da vida moral é a procura de Deus ou a identificação com Deus. São também éticas teleológicas as que buscam a beleza, o autodesenvolvimento, a *areté* (excelência ou virtude), a autenticidade e a solidariedade. O utilitarismo, de que se falará mais desenvolvidamente adiante, e o pragmatismo são também éticas teleológicas.

Em síntese, podemos dizer com Esperanza Guisán, ela mesma reconhecendo que a afirmação é polémica, que «todas as éticas teleológicas propõem como fim o desenvolvimento e autodesenvolvimento do ser humano, a sua emancipação e, por conseguinte, atrevo-me a acrescentar a sua felicidade. Ao menos a felicidade tal como a maior parte das éticas de cariz eudemonista-hedonista a entendem».[5]

Todas estas éticas medem a moralidade pelo fim que a acção visa atingir. Algumas delas consideram que as acções não têm valor em si e que, por isso, só o fim interessa. Outras, pelo contrário, consideram que se não deve atender apenas ao fim porque as acções também têm valor em si, pelo que se deve atender às acções e aos fins. Para estas últimas éticas as acções são boas ou más em si e em função do fim que com elas o sujeito moral pretende atingir.

Nestas éticas teleológicas a felicidade, num sentido muitíssimo amplo, é o fim a atingir e a vida moral é a procura dos meios para atingir esse fim. O homem bom é o homem feliz. A lei moral provém, em última instância, da natureza, a natureza humana. As relações entre prazeres espirituais e prazeres materiais, e o que se entende por «natureza humana», são dois dos temas de discussão dentro desta corrente.

São as chamadas éticas do dever; a acção é julgada pelo princípio que a rege. Por isso o importante é ver o modo como a acção se funda nesses princípios e não tanto as consequências da acção, por exemplo a felicidade.

Cada uma das duas correntes tem a sua parte da razão.[6] Em relação às éticas teleológicas, pode dizer-se que a capacidade de produzir felicidade não é a única medida para avaliar a bondade das acções, pois que:

a) a nível das acções que afectam os outros, nenhum ideal de felicidade justifica eliminar ou diminuir as suas capacidades físicas ou mentais, nem é admissível

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2 Para uma excelente introdução ao pensamento ético grego cf. CANTO-SPERBER, Monique – *Éthiques grecques*. Paris: P.U.F., 2001 e GÓMEZ-HERAS, José Maria García – *Teorías de la moralidad. Introducción a la ética comparada*. Madrid: Editorial Síntesis, 2003, pp. 45–90

3 Cf. GUISÁN, E. – *Introducción a la ética*. Madrid: Ediciones Cátedra, 1995, p. 37

4 CORTINA, A. – *Ética mínima*, p. 110

5 GUISÁN, E. – *Introducción a la ética*, p. 38. A síntese de Guisán é polémica quanto mais não seja por ela identificar bem com felicidade.

6 Sobre estas críticas, cf. CORTINA, Adela – *Ética mínima*, pp. 112–114

que a desigualdade, que sempre permanece, seja em prol da felicidade de muitos. Cada pessoa tem valor em si.

b) há acções que todos consideram como boas e não é fácil justificar essa bondade pela felicidade que proporcionam, por exemplo ser justo, não mentir. Nem a felicidade individual nem colectiva, que é o bem subjectivo do homem, se podem pôr antes da dignidade do ser humano, como diz o deontologismo.

Quanto ao deontologismo, deve reconhecer-se que ele não proporciona ao homem os procedimentos para o agir concreto, indicando apenas a forma do agir, isto é falta-lhe o conteúdo.

ARISTÓTELES (384/83-322 a. C.)

Escreveu tratados sobre Ética: *Ética a Nicómaco* (10 livros)[7], a *Magna Ética* (2 livros) e *Ética a Eudemo* (7 livros).[8] O primeiro destes tratados é o mais influente e nele o autor levanta a questão de "qual é o fim último de toda a actividade humana?" Para o autor toda a arte, investigação, acção e eleição tende para algum bem. Como existem vários bens com valores diferentes, eles são hierarquizáveis,[9] sendo o valor supremo a vida boa, a vida feliz, a *eudaimonia*. A ética de Aristóteles, como toda a ética antiga, é uma ética do Bem;[10] viver e agir bem é o mesmo que ser feliz. Na *Ética a Nicómaco* Aristóteles afirma que todos concordam que o nome do nosso bem supremo é a *eudaimonia*, a felicidade. A questão que se levanta é a de saber o que é a felicidade. Como refere Henrique C. Lima Vaz, o termo *eudaimonia* costuma ser traduzido por *felicidade*, «denotando o *sentimento* de bem-estar ou auto-satisfação do agente» realçando um carácter transitório, o que se afasta do sentido original do termo que «significa a excelência ou perfeição resultante no agente da posse do bem que nele realiza *melhor* sua capacidade de ser *bom*». As diversas interpretações dadas à *eudaimonia* concordam que ela «corresponde à posse do bem objectivamente *melhor* para o agente, capaz de proporcionar-lhe o *viver bem* (*eu zen*) e o *agir bem* (*eu prattein*)».[11]

Pensamos valer a pena reproduzir aqui o texto em que Lima Vaz, retomando W. D. Ross, apresenta os momentos fundamentais da *Ética a Nicómaco*:

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7 Há uma tradução portuguesa desta obra de Aristóteles: *Ética a Nicómaco*. Tradução e notas de António C. Caeiro. Lisboa: Quetzal Editores, 2004, 293 pp. As citações do nosso texto serão feitas a partir desta tradução.

8 Para uma informação sobre a história da ética aristotélica, uma bibliografia actual relevante e uma síntese da Ética do autor cf. VAZ, Henrique C. de Lima – *Escritos de Filosofia* IV. *Introdução à Ética Filosófica* I. São Paulo: Edições Loyola, 1999, pp. 109-126. Uma outra exposição sintética da ética aristotélica pode encontrar-se em LABARRIÈRE, Jean-Louis – «Aristote». CANTO-SPERBER, Monique (sous la dir.) - *Dictionnaire d'éthique et de philosophie morale.* , t. 1. 1ª ed. Quadrige. Paris: P.U.F. 2004, pp. 104–113 [tradução brasileira: ID – *Dicionário de Ética e Filosofia Moral* 1. São Leopoldo: Editora Unisinos, 2003, pp. 117–124]. Para uma visão geral do neoaristotelismo contemporâneo cf. THIEBAUT, Carlos – «Neoaristotelismos contemporâneos». CAMPS, V., GUARIGILIA, O.; SALMERÓN, F. (eds.) – *Concepciones de la ética*. Madrid, Editorial Trotta, 1992, pp. 29–51.

9 ARISTÓTELES – *Ética a Nicómaco*, 1094a18-1094b11 descreve a hierarquia dos bens. Utilizaremos a tradução é de António C. Caeiro que está indicada na bibliografia.

10 Cf. VAZ, Henrique C. de Lima – *Escritos de Filosofia* IV. *Introdução à Ética Filosófica* I, p. 87.

11 As três citações são tiradas de VAZ, Henrique C. de Lima – *Escritos de Filosofia* IV. *Introdução à Ética Filosófica* I, pp. 118–119, nota 24.

> "1. O Bem como fim e sua realização como *bem humano*: a *eudaimonia*. A actividade própria do estado de *eudaimonia*: a *virtude* (I, 12). Divisão das virtudes segundo as actividades da alma: virtudes *éticas* (morais) e virtudes *dianoéticas* (intelectuais) (I, 13). 2. As virtudes *éticas*: a. Em geral – Características e definição da virtude ética (II, 1–7); A virtude ética como *mediania* (II, 8–9); Condições subjectivas da virtude ética: voluntariedade, deliberação, escolha, responsabilidade (III, 1–5). b. Catálogo das virtudes éticas (III, 6–IV,9); A *justiça* como principal virtude ética (V, 1–11). 3. As virtudes *dianoéticas*: filosofia, artes, sabedoria prática (*phronesis* ou prudência) (VI, 1–8); Deliberação, entendimento, juízo: a filosofia e a sabedoria prática (VI, 9–13). 4. As condições da virtude: a. Continência e incontinência (VII, 1–10); b. O prazer (VII, 11–14). A amizade: a. Espécies e propriedades da amizade (VIII, 1–14): b. Natureza e necessidade da amizade (IX, 1–12). 5. Ainda sobre o prazer (X, 1–5); *Eudaimonia* e sua perfeita realização: a contemplação (X, 6–8); Necessidade da lei: passagem à *Política* (X, 9)".[12]

Depois de chamar a atenção para a existência de meios que não são fins, como a medicina, e de fins que ao mesmo tempo são meios, como a saúde, Aristóteles afirma que há um fim em si que não pode ser meio, que é a Felicidade. Para o autor, a verdadeira felicidade tem que ser um bem perfeito, que se persegue por si mesmo porque vale por si mesmo. Não pode, pois, ser um meio que é perseguido em ordem a alcançar outro fim, como a riqueza ou as honras.

Por último, o bem supremo, a Felicidade, tem que ser uma actividade peculiar que possa realizar-se de um modo excelente.

Aristóteles é o último filósofo grego da *Polis* e, por isso, é natural que ponha o acento na vida da cidade. Cada ser humano tem a sua função na sociedade a qual deve ser cumprida na perfeição. A política surge como o fim excelente da vida do homem, pelo que o autor afirma: «O fim que ela (a perícia política) persegue envolve de tal modo os fins das restantes, ao ponto de tratar-se do bem humano. Porque, mesmo que haja um único bem para cada indivíduo em particular e para todos em geral num Estado, parece que obter e conservar o bem pertencente a um Estado é obter e conservar um bem maior e mais completo».[13] A felicidade realiza-se no âmbito da *polis* pois que o homem é por essência *animal político*. É o *ethos* da *polis* que marca o que se deve fazer e as virtudes que se devem praticar.[14] O homem perfeito e, por isso, feliz é o homem perfeito para o bem da *polis* que se realiza pelo *logos* participativo – o cidadão.

Por outro lado, o filósofo considera que a função do ser humano enquanto ser humano, e que lhe dá a maior felicidade, é o *exercício da inteligência teórica*, isto é a contemplação ou compreensão dos conhecimentos. O conhecimento teórico é

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12 VAZ, Henrique C. de Lima – *Escritos de Filosofia* IV. *Introdução à Ética Filosófica* I, p. 121.

13 ARISTÓTELES – *Ética a Nicómaco*, 1094b5.

14 Aristóteles define a virtude nestes termos: «A excelência é [...] uma disposição do carácter escolhida antecipadamente. Ela está situada no meio e é definida relativamente a nós pelo sentido orientador, princípio segundo o qual também o sensato a definirá para si próprio. A situação do meio existe entre duas perversões: a do excesso e a do defeito» (1106b36 – 1107a2).

procurado por si mesmo e a felicidade que proporciona está na sua própria posse. A vida gozosa é a vida contemplativa só possível para os deuses. Entre o ideal do político e do sábio, os textos mais explícitos de Aristóteles parecem valorizar o último, embora o autor considere que é «o carácter social e político da natureza humana, que deve condicionar o seu modo de felicidade».[15]

Também caminho para a felicidade é *o exercício do entendimento prático* que consiste no domínio das paixões e na relação amável e satisfatória com o mundo natural e social; nisso as virtudes ajudam. Daí que a *Ética a Nicómaco* trate abundantemente das virtudes apresentando um catálogo de doze virtudes éticas ou de carácter: coragem, temperança, liberalidade, magnificência, magnanimidade, equanimidade, placidez, amabilidade, veracidade, jovialidade, pudor e justiça.

A virtude fundamental é a *prudência* (*phronesis*) – sabedoria prática que permite deliberar correctamente mostrando o mais conveniente para a nossa vida e, por isso, não é uma virtude ética ou de carácter, mas dianoética;[16] ajuda no discernimento, na tomada de deliberação permitindo atingir o meio-termo, que não é sinónimo de mediocridade, e é guia das restantes virtudes (v.g. coragem, meio termo entre a cobardia e a temeridade).

Quem é virtuoso é quase de certeza feliz, embora o autor considere que, para além da virtude, é também precisa a "fortuna": amigos, saúde... O *logos*, a capacidade que torna possível uma vida contemplativa e que permite tomar decisões prudentes, é uma capacidade para a vida social: ética ligada à política.

Em síntese: a ética de Aristóteles afirma que há moral porque buscamos a felicidade a qual é encontrada através de orientações morais. A ética proporciona critérios racionais para ver que virtudes, que comportamentos, que carácter moral é adequado a esse fim. A *Ética a Nicámaco* não visa apenas «saber o que é bom mas também como tornar os homens bons».[17] A moral é um modo de auto-realização – ética eudemonista, distinta das que vêem a felicidade no prazer – éticas hedonistas. É porque a ética visa a auto-realização que Aristóteles escreveu a *Ética e Nicómaco.*

Os temas que Aristóteles trata na sua ética são os temas que ainda hoje nos preocupam e continuam a ser tratados. Como diz Henrique C. Lima Vaz: «enquanto não for rompida a continuidade, em termos de *natureza* humana, que nos permite reconhecer, nos temas éticos de Aristóteles, os problemas que desafiam nosso agir como seres racionais e livres, a EN (*Ética a Nicámaco*) continuará sendo o programa fundamental proposto à reflexão ética de nossa civilização».[18]

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15 ETXEBERRIA, Xavier – *Temas Básicos de Ética*. Bilbao: Desclée De Brouwer, 2002, p. 31.

16 O autor trata destas virtudes no livro VI da *Ética a Nicómaco*. Sobre a concepção aristotélica de *phronesis,* cf. VAZ, Henrique C. Lima – *Escritos de Filosofia*. II *Ética e cultura*. São Paulo: Edições Loyola, 1988, pp. 103–118.

17 *Ética a Nicómaco*, 1103b26–28.

18 VAZ, Henrique C. de Lima – *Escritos de Filosofia* IV. *Introdução à Ética Filosófica* I, p. 122.

EPICURO (341-270 a.C.)

É um autor do período helenístico.[19] Com os grandes impérios (Alexandre Magno e Império Romano) há um grande desconcerto político e moral e um afastamento dos cidadãos gregos dos centros do poder político. Nesse período as escolas *Epicurista* e *Estóica* reconduzem a investigação ética para a pergunta sobre a felicidade dos indivíduos, identificando felicidade e sabedoria. Sábio é o que vive de acordo com a natureza, mas ambas as escolas não estão de acordo sobre a maneira de entender a natureza e, consequentemente, quanto ao ideal de homem sábio.

Como o ser humano age para procurar o prazer, Epicuro propõe uma ética da felicidade entendida como prazer: a vida moral é uma procura da felicidade entendida como prazer, ou satisfação de carácter sensível.[20] O sábio é aquele que sabe calcular a actividade que dá mais prazer e menos dor, atendendo à intensidade e duração. Para a verdadeira sabedoria e autêntica felicidade são necessários o *prazer* e *entendimento calculador*. Mas como evitar a dor e procurar o prazer para o qual o ser humano tende espontaneamente? Através da razão calculadora que, tendo uma ideia clara do que é a vida prazenteira, evita as fontes de temor como o temor dos deuses, a morte e a dor.

Os critérios para o cálculo dos prazeres, segundo o autor, deviam ser os seguintes. Devia, em primeiro lugar, estar-se atendo às consequências globais da satisfação dos desejos; em segundo lugar, estar atento ao discernimento dos limites, à medida, à *sophrosyne*, controlando os desejos corporais que nunca estão satisfeitos. Em terceiro lugar, devia distinguir-se entre prazeres naturais (necessários e não necessários) e não naturais (não necessários); devia satisfazer-se os naturais necessários e evitar os que são difíceis de saciar.

Epicuro defendia um hedonismo, sem que isso significasse que defendia uma vida libertina porque o que ele recomendava eram os prazeres da amizade e da tranquilidade.[21] Pode até dizer-se que o que o autor defendia não é um puro hedonismo como demonstra o chamado "quatro remédio" que se pode ler no início das *Sentenças Capitais*, uma das principais fontes para o conhecimento da Ética de Epicuro, que diz: «não se pode viver com prazer sem viver com prudência, honestidade e justiça, nem viver com prudência, honestidade e justiça sem viver com prazer; e a quem falta as condições para viver com prudência, honestidade e justiça, este não pode viver com prazer».[22] O que Epicuro procurava era a sábia medida do prazer na linha da arte da medida que Platão e Aristóteles colocaram no centro da ética. Daí a *phronesis* (sabedoria prática), na linha aristotélica, ser para ele a primeira das virtudes.[23]

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19 Para uma visão sintética do pensamento de Epicuro cf. MARTINS, António Manuel - «Epicuro». *Logos – Enciclopédia Luso-Brasileira de Filosofia*. Vol. 2, cols. 110-114 e LAKS, André – «Epicure». CANTO-SPERBER, Monique (sous la dir.) – *Dictionnaire d'éthique et de philosophie morale,* t. 1. 1ª ed. Quadrige. Paris: P.U.F. 2004, pp. 648–656 [tradução brasileira: ID – *Dicionário de Ética e Filosofia Moral* 1. São Leopoldo: Editora Unisinos, 2003, pp. 529–536].

20 Já antes houve outros hedonistas (hedonismo ingénuo: alguns sofistas, os „cirenaicos" - identificavam o bem humano com o prazer sensual imediato).

21 Cf. GUISÁN, E. – *Introducción a la ética*, p. 37

22 Citado por VAZ, Henrique C. de Lima – *Escritos de Filosofia* IV. *Introdução à Ética Filosófica* I, p. 139.

23 Cf. VAZ, Henrique C. de Lima – *Escritos de Filosofia* IV. *Introdução à Ética Filosófica* I, p. 141.

Por um lado, como muito bem observa Isabel Baptista na sua tese de doutoramento, «postulando o prazer como fundamento da felicidade, o epicurismo mantinha a exigência platónica de estabilidade e de equilíbrio, enquanto características do *bem soberano*».[24] Por outro, como a mesma autora refere comparando com o nosso tempo, o hedonismo contemporâneo «sofre do excesso da desmesura. Inspirado nos princípios do *utilitarismo*, tende a postular o máximo de felicidade, com o menor custo, para o maior número de pessoas».[25]

UTILITARISMO:[26] AUTORES E PENSAMENTO

Roque Cabral diz que, para o Utilitarismo, «É boa (obrigatória) a acção que procura "o maior vantagem ou bem-estar para o maior número" (vantagem, prazer)».[27] Segundo José Luis Fernández, o Utilitarismo «afirma que uma acção, em si mesma, é neutra e que o que a converte em boa ou má, do ponto de vista ético, são as consequências, os fins que com ela se consegue».[28] Diz Peter Singer, utilitarista contemporâneo que abordaremos adiante, «pelo menos num determinado nível do meu raciocínio ético, tenho de escolher as acções que têm as melhores consequências para todos os afectados, depois de ponderar as alternativas».[29]

Como é patente nestas definições, segundo o Utilitarismo as consequências do agir são fundamentais para a avaliação moral, o que leva a dizer que se está perante um consequencialismo. Além disso, é notória a sugestão de que as acções são em si axiologicamente neutras, não têm valor moral em si; o seu valor depende do fim que permitem atingir.[30] Trata-se, portanto, de uma teoria do bem/felicidade, não como bem em si, mas como bem que só o é quando é bem para alguém.

Há uma grande variedade de utilitarismos embora, ao falar desta corrente, logo ocorram dois nomes: Jeremy Bentham (1748–1832) e o seu discípulo John Stuart Mill (1806–1873).[31] São os autores desta corrente considerados clássicos. Outro autor utilitarista muito importante é Henry Sidgwick (1838–1900) cuja obra mais conhecida é *Methods of Ethics* (1875).

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24 BAPTISTA, Isabel – *Capacidade ética e desejo metafísico. Uma interpelação à razão pedagógica*. Porto: Edições Afrontamento, 2007, p. 67.

25 BAPTISTA, Isabel – *Capacidade ética e desejo metafísico*, p. 68.

26 Para uma exposição sintética do Utilitarismo cf. CABRAL, Roque – «Utilitarismo» *Logos – Enciclopédia Luso-Brasileira de Filosofia*. Vol. 5, cols. 362-365, e AUDARD, Catherine – «Utilitarisme». CANTO-SPERBER, Monique (sous la dir.) – *Dictionnaire d'éthique et de philosophie morale,* t. 2. 1ª ed. Quadrige. Paris: P.U.F. 2004, pp. 2001-2009 [tradução brasileira: ID – *Dicionário de Ética e Filosofia Moral* 1. São Leopoldo: Editora Unisinos, 2003, pp. 737–745].

27 CABRAL, Roque – *Temas de ética*. Braga: Faculdade de Filosofia UCP, 2000, p. 147. Nesta mesma página o autor informa que esta fórmula foi usada pela primeira vez no *De Legibus naturae*, de Richard Cumberland e que, em 1670, em vez de "bem-estar" tinha "felicidade".

28 FERNÁNDEZ FERNÁNDEZ, José Luis – *Ética para empresarios y directivos,* p. 84.

29 SINGER, Peter - *Ética prática*. Lisboa: Gradiva, 2000, p. 29. Este autor, cujo pensamento exposto em *Ética prática* sintetizaremos mais à frente, é hoje um dos utilitaristas mais conhecidos e polémicos, principalmente por algumas das posições defendidas no livro referido.

30 Cf. MILL, John Stuart – *O utilitarismo*. Coimbra: Atlântida Editora, 1976, p. 15.

31 De John Stuart Mill estão traduzidas para português duas obra famosas: *Sobre a liberdade* [Mem Martins: Publicações Europa-América, 1997] e *Utilitarismo* [Trad. de Eduardo Rogado Dias. Pref. de Vieira de Almeida. 2.ª ed. Coimbra: Atlântida, 1976].

JEREMY BENTHAM (1748-1832)[32]

Bentham foi um reformador social que convidava à libertação do género humano submetido a várias formas de tirania, em especial à daqueles que detinham o poder político. Para ele o homem deve libertar-se dos grandes conceitos vazios, dos dogmas, dos mitos de que são exemplos "o sentido moral", "as leis eternas e imutáveis do justo", "a lei da natureza". Havia, considerava, que encontrar um critério objectivo e único que permitisse determinar o bem e o mal. Esse critério é, para ele, o da utilidade.[33] O autor, em *Introduction to the Prínciples of Legislation and Morals*, perspectivou o seu utilitarismo partindo este princípio:

> "A natureza colocou a humanidade sob o governo de dois senhores soberanos, a *dor* e o *prazer*. […] Eles governam-nos em tudo o que fazemos, em tudo o que dizemos, em tudo o que pensamos. O *princípio de utilidade* reconhece esta sujeição e assume-a como fundamento deste sistema cujo objectivo é erigir a produção da felicidade pelas mãos da razão e da lei."[34]

Este pensador foi influenciado por Helvetius (1715-1771) e por Hume (1711-1771), dois filósofos da Ilustração. Enquanto o princípio de utilidade é apresentado por David Hume para descrever *aquilo que é*, Bentham usa esse princípio para descrever *o que deve ser*. Dos dois filósofos da Ilustração o que teve maior influência em Bentham foi Helvetius, principalmente com a sua obra *De l'esprit* (1758) lida pelo autor utilitarista dez anos depois da sua publicação. Esperanza Guisán[35] considera que, embora Claude-Adrien Helvetius tenha significado um avanço no uso do princípio de utilidade, foi o autor inglês que o sistematizou de um modo mais lógico. Bentham, através da análise da linguagem, procurou desmascarar as opiniões recebidas e discutir tradições não questionadas. Com a análise dos termos procurou desmascarar a carga valorativa que alguns deles têm, como "obrigação", "direito", "poder", etc. Além disso, criou conceitos como "internacional", "maximizar" e "codificação".

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32 Para uma visão sintética do pensamento de Jeremy Bentham, cf. BRITO, A. J. – «BENTHAM (Jeremy)». *Logos – Enciclopédia Luso-Brasileira de Filosofia*. Vol. 1, cols. 662-664 e HARRISON, Ross – «BENTHAM Jeremy». CANTO-SPERBER, Monique (sous la dir.) – *Dictionnaire d'éthique et de philosophie morale*, t. 1. 1ª ed. Quadrige. Paris: P.U.F. 2004, pp. 163-172 [tradução brasileira: ID – *Dicionário de Ética e Filosofia Moral* 1. São Leopoldo: Editora Unisinos, 2003, pp. 153–160].

33 Cf. CANTO-SPERBER, Monique – *La philosophie morale britanique*. Paris: P.U.F., 1994, p. 18. Sobre este utilitarismo clássico cf. nesta obra pp. 17–24.

34 Citado a partir de HUGUES, Gerard J. – «Ethical Objectivity: Sense, Calculation or Insight?». *Revista Portuguesa de Filosofia*. 62(2006), p. 96. Este texto (pp. 89–106) é uma excelente exposição crítica do utilitarismo e do relativismo. Sobre o utilitarismo e o relativismo, cf. ainda VILA-CHÃ, João – «Ética-Bioética-Sociedade: A vida moral do ser humano num contexto de Relativismo e Utilitarismo». *Revista Portuguesa de Filosofia*. 62(2006), pp. 3–21. Nas páginas 12-13, nota 17 pode encontrar-se uma longa bibliografia.

35 Esta autora espanhola, professora na Universidade de Compostela, é utilitarista sendo autora de vários textos em que faz uma exposição desta corrente da filosofia moral como, por exemplo, «El utilitarismo» [CAMPS, V. (ed.) – História de la ética. Vol. II. Barcelona: Crítica, 1989, pp. 457–499] e «Utilitarismo» [CAMPS, Victoria; GARIGLIA, Oswald; SALMERÓN, Feranando (ed.) – *Concepciones de la ética*. Madrid: Trotta, 1992, pp. 269–295]. Esta mesma visão utilitarista é evidente em livros da autora como *Introducción a la ética* [Col.: Teorema. Madrid: Ediciones Cátedra, 1995]. Além disso, a filósofa é a directora da revista *Τέλος. Revista Iberoamericana de Estudos Utilitaristas* que se publica desde 1992 e que pertence à Sociedade Iberoamericada de Estudos Utilitaristas. Atendendo ao que acaba de se afirmar, neste texto dar-se-á particular atenção à exposição do utilitarismo que a autora faz no seu livro *Introducción a la ética* [Madrid: Ediciones Cátedra, 1995, pp. 146–169].

> Nas palavras de Esperanza Guisán, para este autor o princípio que preside à Ética é «maximizar a felicidade geral, procurar que os prazeres sejam desfrutados por todos se possível, se não pelo maior número factível, e que os ditos prazeres sejam o mais gratificantes que se pode alcançar, quer dizer, que não sejam acompanhados de dores, que sejam duradouros e fecundos, que não se esgotem no momento de seu desfrute ou em si mesmos».[36]

> Assim, uma acção é boa ou má se é útil, definindo o autor utilidade como "a propriedade de um objecto pela qual ele tende a produzir benefício, vantagem, prazer, bem ou felicidade e... ou... evitar inconvenientes, penas, mal ou infelicidade da parte daqueles cujo interesse está em consideração."[37]

Para ele, o que cada um deseja é tão bom como o que desejam os demais. Não faz, por isso, distinção entre prazeres superiores e inferiores, como John Stuart Mill. Para ele, que defendia um hedonismo quantitativo, todos os prazeres eram bons. Não era, por consequência, um elitista; fazer a distinção entre prazeres elevados e prazeres mais simples poderia ser um caminho que levasse ao prejuízo da maioria que frui dos prazeres simples. Bentham só considera maus os prazeres que podem apresentar alguma tendência prejudicial. Além disso propunha o "cálculo hedonista" que pretendia

> "calcular, medir a bondade ou a maldade de uma acção mediante uma sofisticada análise da "intensidade, duração, certeza ou incerteza, proximidade ou afastamento, fecundidade e beleza do prazer em questão".[38]

Poder-se-ia perguntar se não seria de fomentar os prazeres mais sofisticados, uma vez que o gosto também se educa? Ora, o papel que o autor dava ao filósofo da ética de apresentar um plano para um futuro mais completo e ajustado do que aquele que cada um pode arquitectar movido pelos seus próprios apetites, mostrava já que ele distinguia entre os prazeres mais ou menos sofisticados.

O grande pomo de discórdia suscitado pela obra de Bentham era a defesa que o autor fazia da felicidade da maioria frente aos direitos invioláveis das minorias. No entender de Esperanza Guisán, que procura sempre argumentar em defesa do utilitarismo e seus autores, deve interpretar-se esta posição no contexto da obra de Bentham que, diz a filósofa espanhola, se queria referir aqui às minorias que detinham o poder, e não às minorias dos súbditos. Teríamos então uma defesa da maior parte, do universal. Nesta interpretação a maximização da felicidade defendida não excluía a justiça ou a imparcialidade na distribuição. Num texto de 1831 o filósofo indicava como fim «a provisão de uma quantidade de felicidade igual para cada um».[39]Apesar da defesa de Esperanza Guisán, deve reconhecer-se que Bentham sempre foi muito criticado e sujeito a interpretações menos compreensivas do que a apresentada pela filósofa espanhola.

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36 GUISÁN, Esperanza – *Introducción à la Ética,* p. 147.

37 Citado por BRITO, A. J. – «Bentham». In: *Logos*. Vol 1, col. 662. (O artigo é cols. 662–664). Bentham teve grandes preocupações políticas. Defendia que a melhor forma de governo era a que conduzia ao fim do Estado. O fim que o Estado deve perseguir é a maior felicidade do maior número. A democracia era para ele o melhor meio de levar a este fim. Defendia que cada um é apenas um e não mais. Isto é, defendia o princípio "um homem um voto". Era um democrata.

38 FERNÁNDEZ FERNÁNDEZ, José Luis – *Ética para empresarios y directivos,* p. 85.

39 GUISÁN, Esperanza – *Introducción à la Ética,* p. 151.

JOHN STUART MILL (1806-1873)[40]

Esperanza Guisán aprecia muito este autor por ele ter concebido uma teoria ética que, embora criticável do ponto de vista epistemológico, é, na opinião dela, equilibrada e impecável, apta a responder às exigências que hoje se põem a uma ética normativa. Do ponto de vista da filósofa espanhola, a ética de John Stuart Mill responde às questões levantadas pelas éticas normativas quer sejam:

1. As éticas do bem-estar;
2. As éticas dos direitos, das liberdades, da imparcialidade e da justiça;
3. As éticas da excelência ou virtude, da benevolência e do cuidado.

Isto é, para a Esperanza Guisán, a obra de Mill responde às tradicionais objecções que o utilitarismo suscita: a questão da definição do prazer, as dificuldades de compatibilizar a norma de "o maior bem para o maior número" com a justiça e de que é um pensar individualista não solidário.

Uma das dificuldades apontadas ao Utilitarismo é a do sentido do termo prazer. Alguns dos autores desta corrente falam em prazer, outros, tentando ultrapassar as dificuldades da noção, dizem que o que se deve procurar é a maximização das preferências, a satisfação das preferências informadas ou ainda a maximização do bem-estar. Apesar de todas estas tentativas para ultrapassar a dificuldade, a questão não está resolvida porque mesmo a noção de bem-estar não ultrapassa o problema porque pode ser entendida em termos de bem-estar económico ou ficar-se pelos aspectos subjectivos do bem-estar.

No entender de Esperanza Guisán, John Stuart Mill ultrapassa estas críticas porque distingue qualitativamente os prazeres, o que implica uma separação clara entre seres humanos e animais, contrariamente ao que fazem alguns utilitaristas contemporâneos.[41] Não é afectado por estas críticas porque distingue o bem-estar humano do dos animais; considerando que os homens têm faculdades mais elevadas, afirma que serão felizes quando essas faculdades forem satisfeitas. Os passos da argumentação são, com algumas modificações, os mesmos que os das éticas teleológicas:

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[40] Para uma visão sintética do pensamento de John Stuart Mill cf. ROCHA, Acílio Estanqueiro – «MILL (John Stuart)». *Logos – Enciclopédia Luso-Brasileira de Filosofia*. Vol. 3, cols. 871–880 e SCORUPSKI, Por André – «MILL John Stuart». CANTO-SPERBER, Monique (sous la dir.) - *Dictionnaire d'éthique et de philosophie morale,* t. 2. 1ª ed. Quadrige. Paris: P.U.F. 2004, pp. 1256–1266 [tradução brasileira: ID – *Dicionário de Ética e Filosofia Moral* 1. São Leopoldo: Editora Unisinos, 2003, pp. 181–189].

[41] Para John Stuart Mill «Os seres humanos têm faculdades mais elevadas do que os apetites animais, e, uma vez conscientes delas, não consideram como felicidade nada que não inclua a sua satisfação» (MILL, J. S. – *Utilitarismo*, p. 20). Alguns utilitaristas contemporâneos, por exemplo Peter Singer, ao indicarem que o valioso é a sensação de agrado ou de bem-estar, concluem que os afectados por tal valor são os seres que raciocinam (os humanos) mas também os que podem sentir (os animais). Ora ser sujeito racional implica uma distinção importante em ética: permite ver quem é sujeito com obrigações. Ora, isto não interessará para determinar quem é valioso em si? É também a partir da afirmação de continuidade entre seres humanos e não humanos que se chega à afirmação dos direitos dos animais.

(1) Embora Mill parta de um ponto de vista hedonista psicológico para concluir num hedonismo ético, esse hedonismo não é individualista como o de Epicuro e Bentham; é um hedonismo universalista e solidário.

(2) O autor defende um hedonismo qualitativo. Para ele a natureza humana, sempre que a educação e as instituições permitem, tem uma evolução ascendente, pelo que há uma distinção importante entre prazeres superiores e inferiores. Só as pessoas que experimentaram prazeres dos dois tipos podem legitimamente classificá-los e sempre escolhem os prazeres intelectuais e morais. «Mais vale ser um Sócrates insatisfeito que um porco satisfeito». Logo, a hierarquia dos prazeres deve ser feita por quem experimentou, daí a importância da educação.

Para Stuart Mill só se deseja a felicidade que é identificada com o prazer o qual é procurado por todos os homens. Na sua principal obra, *Utilitarismo*, afirma que o fundamento da moral é a *Utilidade* ou o *Princípio da Maior Felicidade* que:

> "sustenta que as acções são justas na medida em que tendem a promover a felicidade, e injustas enquanto tendem a produzir o contrário da felicidade. Por felicidade entende-se o prazer e a ausência da dor; e por infelicidade, a dor e a privação do prazer."[42]

Em Mill essa felicidade não é a do indivíduo, mas a felicidade geral, desejada por todo o ser humano.

George Edwars Moore (1873-1958) acusa Mill de cair na falácia naturalista porque considera que o filósofo faz uma passagem do "desejado" ao "desejável", isto é "do facto" ao "dever ser", do "is" a um "ought". Na interpretação de Esperanza Guisán, John Stuart Mill faz efectivamente a passagem do facto ao dever ser, mas refere-se ao que os "juízes competentes"" consideram como desejável; é este desejável que é considerado "desejável". Eles, os "juízos competentes", declaram desejável devido à sua competência originada na sua experiência das coisas que dão prazer. É o que se exprime nesta afirmação de John Stuart Mill:

> "sobre a questão de saber qual é o mais valioso dos dois prazeres, ou qual é, de dois modos de existência, o mais grato aos sentimentos [à parte os seus atributos morais e as suas consequências], deve admitir-se como definitivo o juízo dos que estão qualificados pelo conhecimentos de ambos, ou, se há divergências, o da maioria."[43]

Desejado e desejável são as duas faces da mesma moeda.

A questão da maior felicidade para o maior número é sempre polémica. O problema é o de saber se o hedonismo de Mill é egoísta ou universalista. Segundo alguns intérpretes, o hedonismo deste autor é universalista. A felicidade ou prazer que se procura é o de uma sociedade de seres felizes e o filósofo considera que o egoísmo e a falta de cultura são a principal causa da infelicidade. John Stuart Mill contava já com os sentimentos naturais adquiridos:

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42 MILL, John Stuart – *Utilitarismo*, p. 18.

43 MILL, John Stuart – *Utilitarismo*, pp. 23–24.

> "este sólido fundamento é o dos sentimentos sociais da humanidade; o desejo de união com o próximo, que já é um poderoso princípio na natureza humana, e, felizmente, um dos que tendem a fortalecer-se, mesmo sem ser inculcado, apenas por influência dos progressos da civilização."[44]

O filósofo admitia que chegaria o tempo em que os sentimentos de cada um se identificariam com os dos outros, o que levaria a uma preocupação idêntica pelas necessidades de cada um e dos outros. John Stuart Mill admitia que, por um processo educativo, o homem se preocuparia com o bem universal.

Os textos de Mill, diz Esperanza Guisán, descrevem um homem intelectualmente desenvolvido, suficientemente generoso para fazer sua a causa da humanidade, para admitir que os bens por ele desejados são desejáveis e assim se desmorona a acusação de o autor cair numa falácia naturalista. Apesar desta interpretação benevolente, a autora reconhece que a entrada do 4º capítulo do *Utilitarismo* contém muitas imprecisões, mas acrescenta:

> "Mill tem razão, se aceitamos o seu conceito dos desejos da humanidade cultivada, reflexiva e generosa, no sentido de que nada que não produza a felicidade de cada indivíduo pode justificar e fundamentar o credo utilitarista que postula a preocupação por todos os seres humanos e inclusivamente por todos os seres sensientes, e seu bem estar."[45]

Uma das críticas frequentemente feitas ao Utilitarismo é o lugar subalterno que dá à Justiça. Na leitura de Esperanza Guisán, esta crítica não atinge a obra de Mill que tinha ideais social-democratas, articulou equilibradamente liberdade, igualdade e valorização individual sem desprezar o colectivo.

Em primeiro lugar, o filósofo definiu-se como socialista qualificado, matizado, preocupava-se com a distribuição dos bens e passou de defensor da propriedade privada e da herança a uma concepção socialista.

Além disso, repudiava a tirania da sociedade sobre os indivíduos e aspirava à liberdade da acção com a propriedade comum das matérias-primas do Globo e igual participação de todos nos benefícios produzidos pelo trabalho conjunto. Pretendia uma melhor distribuição de bens. Para ele, mais importante que o aumento de produção, era a eficácia da distribuição. O que Mill propôs foi um socialismo democrático:

> "eliminar a miséria, alimentar a riqueza e proceder ao mesmo tempo à sua distribuição justa, sem esquecer que nem a riqueza nem a justiça são fins, mas meios para conseguir que todos vivam uma existência mais satisfatória, o que implica, entre outras coisas, o desenvolvimentos dos indivíduos e das suas capacidades de autonomia."[46]

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44 MILL, J. S. – *Utilitarismo*, p. 51.

45 GUISÁN, Esperanza – *Introducción à la Ética*, p. 158. Quer nesta obra quer em outros textos sobre o utilitarismo, Esperanza Guisán faz uma interpretação tão abrangente desta corrente que o leitor é levado muitas vezes a perguntar se tais interpretações ainda são compatíveis com as características fundamentais que são atribuídas ao utilitarismo.

46 GUISÁN, Esperanza - *Introducción à la Ética*, p. 160–161.

Sobre os direitos individuais, Stuart Mill defendeu que o ser humano teria de aprender que o bem-estar se atinge pela justiça e liberdade.

O desenvolvimento económico deve estar ao serviço das nações e povos e deve procurar-se a cooperação entre os homens, eliminando as relações de subordinação. Com palavras de Mill:

> "a finalidade do progresso não deve ser apenas a de situar os seres humanos nas condições em que não tenham que depender uns dos outros, mas a de permitir-lhes trabalhar uns com os outros, unidos por relações que não impliquem subordinação."[47]

Interessa a Stuart Mill a conquista da auto-estima, da auto-determinação, da liberdade e a libertação das minorias. Foi o primeiro a defender o fim da herança, a igualdade das mulheres e o sufrágio feminino.

No aspecto económico, defendeu um regime cooperativo que eliminasse a divisão entre patrões e operários, relação que, em seu entender, degrada moralmente as duas classes. A isto liga-se o problema da responsabilização.

A sociedade proposta pelo autor é de justiça social e liberdade individual, dando à dignidade e à auto-estima do homem lugar de destaque. Critica o não uso de princípios ou normas secundárias que se devem subordinar ao princípio da maior felicidade. Em *O utilitarismo* enfatiza a dignidade humana quando diz:

> "o que mais apropriadamente podemos ver nela [na repulsa por um grau de existência inferior] é um sentido de dignidade que, de uma forma ou de outra, todos os seres humanos possuem, não decerto em exacta proporção, mas em determinada proporção com as suas faculdades mais elevadas, constituindo uma parte tão essencial da felicidade daqueles em quem é forte, que nada que com ele colida pode para eles constituir, a não ser momentaneamente, objecto de desejo."[48]

Em *Sobre a liberdade*, John Stuart Mill apela à autenticidade, ao auto-desenvolvimento e à individualidade como imprescindíveis à felicidade humana. Em *Do governo representativo*, recusa o déspota, mesmo que tenha todas as qualidades, porque priva o homem de um dos elementos imprescindíveis ao bem-estar: a autonomia, a liberdade, a auto-determinação. Se o déspota fosse sábio e virtuoso seria o único homem desenvolvido e activo do mundo.

CONCLUSÃO

Existe uma multiforme variedade de Éticas, segundo os mais variados sistemas sistemas filosóficos. Outra coisa não seria de ser esperado, porque assim o obriga a evolução e o sentido crítico da filosofia dos dias de hoje. Revisitar todos erstes pensadores é notável, a fim de se obter um nexo filosófico em ordem a obter uma nova visualização ética.

47 MILL, J. S. – *Princípios de economia política* cit. por GUISÁN, Esperanza – *Introducción à la Ética*, p. 161.

48 MILL, J.S. – *Utilitarismo*, p. 22.

Em termos claros «a teoria deontológica afirma que a correcção ética das acções é determinada pelo facto de que estas sejam levadas a cabo em cumprimento de um dever (*deon*)»[49] ou, numa definição mais complexa dada por Esperanza Guisán, nas éticas deontológicas ou de princípios, «o que importa é agir conforme os deveres (*déon* = "dever" em grego) exigidos pela existência de princípios e ditados pela razão pura, como a ética kantiana, e direitos (naturais e/ou fundamentais) ou princípios produzidos mediante consenso ou contrato pelos humanos (ainda que neste último caso poderia dar-se uma importante aproximação das éticas teleológicas ou de fins)».[50]

[49] FERNÁNDEZ FERNÁNDEZ, José Luis – *Ética para empresarios y directivos*. ESIC Editorial, 1994, p. 81.

[50] GUISÁN, E. – *Introducción a la ética*, p. 39.

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BRICS from a Polish Perspective in the Context of Civilizational Breakthrough and Hegemonic Shift – Historiosophical Approach

Summary

The purpose of this study is to examine the growth of the BRICS' multidimensional power from a Polish strategic perspective in a historiosophical approach, i.e. through the prism of processes of *longue durée*, cyclical nature of history, civilizational breakthroughs, and hegemonic shifts. This strategic perspective encompasses the entire 21st century, seven and a half decades into the future, capturing processes that began many decades, or even centuries, ago. Therefore, we are dealing here with the most multidimensional approach possible, with Poland's long-term interests as the starting point for the analysis, what determines the strategic conclusions for this country.

Keywords: BRICS, Poland, China, West, strategy, development, historiosophy, processes of *longue durée*, cyclical nature of history, civilizational breakthrough, hegemonic shift.

"And those who danced were thought to be mad by those who could not hear the music."

Friedrich Nietzsche

"Even if hundreds of thousands of us were drowned, impaled, flayed, roasted over a slow fire – in all of ‚nice' Europe, no one would lift a finger, no one would shake the ashes from a cigar. Understanding this truth may be painful for now, but how healthy it will be, how many unfounded hopes it would cure us of, how many pointless demonstrations it would prevent."

Bolesław Prus

„Our era is leaderless. When you think that the drunkard Yeltsin was the tsar and the ignorant Wałęsa the symbol of freedom, it makes you weak in the knees."

Oriana Fallaci

INSTEAD OF AN INTRODUCTION, I.E. LOOKS AT THE HISTORY OF HUMANITY, FACTORS INFLUENCING THE DEVELOPMENT OF HUMAN SOCIETIES AND PROCESSES OF LONGUE DURÉE

It's worth examining Poland's relationship with BRICS from a historiosophical perspective – the broadest possible one – while simultaneously addressing Poland's long-term interests. Therefore, it's necessary to consider various perspectives on human history, the factors that influence the development of human societies, and the processes of *longue durée*. I have already discussed the nomothetic and idiographic approaches to human history, processes of *longue durée*, and the factors determining human development at length[1], but for the purposes of this study, it's worth reiterating. Nomothetic sciences are concerned with the search for universal regularities and the formulation of general scientific laws, in the case of social sciences, concerning the functioning of human societies. Consequently, they have prognostic value, which is crucial for this study. Idiographic sciences, on the other hand, are concerned with the detailed description and explanation of individual facts and, as a result, are devoid of prognostic value. According to the philosophical view known as idiographism, pioneered by Wilhelm Windelband, history as a science is idiographic in nature[2].

Although the idiographic approach and the superficial and analytically impoverished paradigm of event history still have many supporters and dominate Polish historiography, it must be clearly emphasized that treating history as a solely idiographic science has long since failed, that simply examining facts is insufficient to understand the reality under study. A number of contemporary naturalistic (nomothetic) analyses of human history, primarily utilizing the achievements and methods of the natural sciences[3], demonstrate that the functioning of individuals and human societies can and should be studied nomothetically, as such an approach allows for a much better (fuller, deeper) understanding and explanation of historical processes. Incidentally, I believe that representatives of the natural and social sciences, as those who better understand human behavior and as those for whom theoretical reflection is methodologically obvious (unlike historians), are much better suited to comprehensively analyze the history of human societies than historians, who are exceptionally susceptible (for the world of science) to the influences of ideology, mythology, and politics.

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1 P. Szczurowski, *Podbój Prus w XIII wieku. Przyczyny „krzyżackiego" sukcesu*, Sandomierz 2019, pp. 38–47; P. Szczurowski, *Analiza strategiczna RP w perspektywie XXI wieku*, Sandomierz 2024, pp. 24–34.

2 See more J. Topolski, *Metodologia historii*, Warszawa 1984, p. 547. See also pp. 97–98, 118–119 and 548–552.

3 See i. a. J. Diamond, *Strzelby, zarazki, maszyny. Losy ludzkich społeczeństw*, Warszawa 2000; J. Diamond, *Upadek. Dlaczego niektóre społeczeństwa upadły, a innym się udało*, Warszawa 2007; E. Russell, *Evolutionary History. Uniting History and Biology to Understand Life on Earth*, Cambridge 2011.

The concept of naturalism is associated with the natural sciences. However, historical researchers can also draw on the rich resources of other disciplines for more general principles of human history, such as the social sciences, including economics, sociology, and social psychology. The special role of social sciences, as well as geography, in historical research was emphasized by representatives of the Annales School, associated with the concept of „total history" (integral, global, quantitative), whose representatives included Marc Bloch and Fernand Braudel[4]. Crucially, representatives of this school advocated a shift away from classical political history (for them political events, including military ones, constituted the shallowest layer of history) in favor of analyzing processes of *longue durée*, economic changes, and, further, ideological (including religious) and civilizational changes, which constitute the deepest level of history, crucial to understanding human history. It is precisely these processes of *longue durée* that are particularly important in the context of a long-term perspective, which interests me, among others, in this study. It's worth realizing that from a *longue durée* perspective, most of the political events that people (including experts of all stripes) get so excited about every day and which they eagerly „analyze" and comment on are completely irrelevant.

Returning to naturalistic concepts, it is worth paying particular attention to the analyses of Jared Diamond, who aptly pointed out the fundamental importance of broadly understood geographical (natural) factors for the fate of human societies and their cultural agency. Referring to his considerations, we must begin with geology and geochronology, specifically with the movements of tectonic plates, which in prehistoric times resulted in the formation of continents very close to those we see today, and with the end of the Pleistocene epoch and the gradual retreat of the ice sheet from successive swaths of Eurasia. As a result of these tectonic movements, and the consequent changes in geology, hydrology, pedology, climate, and flora and fauna, an area known as the Fertile Crescent or Golden Horn was created, stretching from Egypt (the lower Nile), through Palestine and Syria, to Mesopotamia (the Euphrates and Tigris basins, modern-day Iraq). This was a strip of land characterized in prehistoric times by exceptionally fertile soils and conditions favorable to human settlement. As a result, the first agricultural areas arose there around 9,000-10,000 BC (the Neolithic Revolution). Another consequence was the development of the ancient civilizations of Mesopotamia and Egypt in these areas. The first monotheistic religious ideologies also originated from there. Over time, as a result of subsequent environmental changes (primarily climatic) and human activity, the center of civilization shifted westward (Greece, Rome), subsequently spreading to other parts of Europe.

In his analysis, Diamond aptly highlighted the crucial role of environmental conditions that allowed for the emergence of agriculture, which should be considered a turning point in human history, first occurring in the Fertile Crescent. This, in turn, determined the subsequent course of history, resulting from the predominance

[4] See i. a. M. Bloch, *Pochwała historii, czyli o zawodzie historyka*, Kęty 2009; F. Braudel, *Historia i trwanie*, Warszawa 1999; F. Braudel, *Gramatyka cywilizacji*, Warszawa 2006. See also A. F. Grabski, *Dzieje historiografii*, Poznań 2003, pp. 708–795. Karol Modzelewski also referred to the achievements of the Annales School in the context of the model of anthropological historiography (K. Modzelewski, *Trzy modele historiografii*, „Nauka", 2/2009, pp. 16–17). In this context, see also P. Szczurowski, *Bitwa nad rzeką Sirgune*, Sandomierz 2020, pp. 75–78.

of peoples inhabiting the crossroads of Europe, Asia, and Africa achieved as a result of the Neolithic Revolution. The transition from hunter-gatherer and nomadic lifestyles to agricultural and sedentary life occurred first in the Fertile Crescent, as it was there that the most abundant plant and animal species suitable for cultivation and domestication were found, and the spread of the new model was dependent on geographic conditions[5]. In short, we can say that the transition to agriculture allowed for the production of food surpluses, which in consequence led to a very large demographic growth, social stratification (specialization) and the creation of cultural structures (cities, states, civilizations), and thus to economic and scientific development and an increase in the military power of individual state entities, thus giving some societies a huge advantage over others already at the start of a civilizational race[6].

It should be emphasized that Diamond does not present a dogmatic stance and does not question the existence of broadly understood cultural factors and their impact on the history of individual societies/states. Instead, he rightly points out that they are secondary (successive) to natural factors, which are primary. It is also worth noting that his geographical determinism is not entirely new, as already in the 19th century, Henry Thomas Buckle emphasized environmental factors as crucial to human history and pioneered the use of natural science methods in historical research[7]. However, Diamond's determinism is relative and should not be understood in a positivist manner, characterized by an almost dogmatic pursuit of absolute historical laws[8]. The crucial importance of geographical location for the development of individual states, already in the geopolitics of the 20th and 21st centuries, has been rightly emphasized by many foreign and Polish authors, albeit in somewhat different approaches[9]. It's also worth mentioning that a century ago, Eugeniusz Romer highlighted the fundamental importance of geographical conditions for the fate of countries, with particular emphasis on Poland[10]. In this context, it's important to emphasize the importance of water transport, which is the cheapest mode of transport, and in ancient times, was sometimes the only available one. This clearly had and continues to influence trade and, consequently, the economic development of individual countries/communities, favoring those with access to the sea, preferably open sea.

Recognizing the crucial role of natural factors in the development of human societies, I also want to highlight some cultural factors that have gained importance

5 See more Diamond, *Strzelby…*, op. cit., part II, chapters 3, 4, 5, 6, 7, 8 and 9 and in summary pp. 491–498. On the impact of environmental changes, including climate change, on the fate of states and human societies, see also J. Haldon et al., *History meets palaeoscience. Consilience and collaboration in studying past societal responses to environmental change*, „PNAS", 115, 13, 2018, pp. 3210–3218.

6 See more Diamond, *Strzelby…*, op. cit., part III, chapters 11, 12 and 13.

7 See more H. T. Buckle, *History of Civilization in England*, New York 1858. See also Grabski, pp. 533–543 and L. Mlodinow, *Matematyka niepewności. Jak przypadki wpływają na nasz los*, Warszawa 2009, p. 186.

8 Cf. Modzelewski, *Trzy…*, op. cit., pp. 16, 18 and 21.

9 See i. a. N. J. Spykman, *The Geography of the Peace*, New York 1944; H. Mackinder, *Geograficzna oś historii*, Częstochowa 2009; Z. Brzeziński, *Wielka szachownica*, Warszawa 1999; L. Moczulski, *Geopolityka. Potęga w czasie i przestrzeni*, Warszawa 2023; L. Sykulski, *Geopolityka a bezpieczeństwo Polski*, Warszawa 2018; J. Bartosiak, *Rzeczpospolita między lądem a morzem. O wojnie i pokoju*, Warszawa 2018.

10 See i. a. E. Romer, *Przyrodzone podstawy Polski historycznej*, Lwów 1912; E. Romer, *Ziemia i państwo. Kilka zagadnień geopolitycznych*, Lwów-Warszawa 1939.

in subsequent stages of human development. These are analyzed today primarily to answer the question of how Western civilization came to dominate the world. First and foremost, we should point to ideology and the creation of institutions by human societies – that is, organizational structures and functional norms (legal and ethical) that shape human relationships and influence the effectiveness of use of natural resources[11]. Furthermore, we can point to the influence of outstanding individuals on human history, bearing in mind, however, that the probability of such individuals occurring is much greater in large populations than in small ones, and to influence human history, these individuals must have appropriate potential (demographic, social, economic, political, technological, or military), which was (to a lesser extent is) dependent on geographical conditions, which again leads us to Diamond's theorems. The role of chance should also not be forgotten. Chance has a significant impact on the fate of individuals. However, when analyzing data on entire populations, statistical regularities can be observed, although this does not completely eliminate chance[12]. Human history is also sometimes influenced by the phenomenon known as the butterfly effect[13], and it's also worth remembering the so-called black swans[14].

When analyzing cultural factors influencing human history, it is impossible to ignore individual events or processes – that is, interconnected sequences of events that were groundbreaking and had far-reaching consequences. A good example is the decisions of the Roman Emperor Theodosius I the Great at the end of the 4th century CE (including the Edict of Thessalonica in 380), by which he banned all religions (including those deemed heretical) other than Trinitarian Christianity and made it the state religion of the Roman Empire. Another example is the Battle of Ain Jalut in 1260, the outcome of which had a fundamental impact on the fate of Islam (stopping the Mongol expansion in the Middle East). In turn, the fate of Poland and Europe was influenced in a multidimensional and far-reaching way by the 13th-century conquest of the Prussian lands by the Teutonic Order and its numerous allies, starting with the Papacy and the Empire, and ending with the Polish provincial princes, the princes of the Reich and numerous crusaders from almost all of Latin Europe, which spectacularly began with the Battle of the Sirgune River. It is worth emphasizing that this conquest could not have been successful without the significant assistance of the Polish provincial princes and the Polish clergy, provided to the Teutonic Knights, particularly in the crucial, initial stages of this process. Another striking example is the political dismantling of the naval fleet in 15th-century China, which resulted in the cessation of that country's tribute-oriented maritime expeditions, which had reached Southeast Asia on the one hand and East Africa on the other. This decision bought Europeans time and allowed them to make groundbreaking geographical discoveries shortly thereafter, ushering in the era of colonialism. Of course, there are many more similar examples.

Naturalistic concepts should not be contrasted with institutional concepts, known primarily from the world of economics, as these concepts are not mutually exclusive

[11] See more i. a. N. Ferguson, *Cywilizacja. Zachód i reszta świata*, Kraków 2013; D. Acemoglu, J. A. Robinson, *Dlaczego narody przegrywają. Źródła władzy, pomyślności i ubóstwa*, Poznań 2014.

[12] See more i. a. Mlodinow, *Matematyka…*, op. cit., pp. 19–21, 172, 174 and 228.

[13] See more i. a. Mlodinow, *Matematyka…*, op. cit., pp. 226–227.

[14] See more i. a. N. N. Taleb, *Czarny łabędź. Jak nieprzewidywalne zdarzenia rządzą naszym życiem*, Poznań 2020.

but complementary. However, when examining the distant past, it is important to remember the primacy of natural factors and the secondary nature of cultural factors, a relationship I have already highlighted. It is also important to recognize that the influence of individual factors on the history of human societies is not a simple sum of these factors, whose impact varies depending on a number of conditions, including interactions between them[15]. This, however, does not undermine the fundamental issue: the possibility of identifying certain general regularities, though not absolute laws, related to the functioning of these societies.

Nomotheticism in historical research should not be applied dogmatically, completely excluding the idiographic approach, as this would be an obvious mistake. Both approaches can and should complement each other. Simplifying somewhat, one can even identify a relationship that implies that the narrower and more specific the subject of study is, the greater the emphasis should be placed on the idiographic approach, while the broader and more general it is, the greater the emphasis we should place on the nomothetic approach. However, in both cases, this emphasis should not be exclusive. Therefore, I employ both approaches in this study, but I place greater emphasis on the nomothetic approach. Another general relationship worth noting is that with civilizational development, and especially technological development, the importance of broadly understood cultural factors (their impact on the level of development of individual human societies) increases relative to natural factors. This, however, does not mean that natural factors lose their significance entirely. On the contrary, they continue to have significant significance, especially within the framework of the interdependence between natural resources and the technological possibilities of their utilization by humans.

A crucial feature of human history is its variability. One could say that change is an inherent feature of human life. Change is, of course, not linear or uniform and is the result of many factors, but there is a fundamental interdependence worth mentioning. Change is generally brought about by the powerful – strong individuals and strong states – while the weak are merely the subject of these changes – they simply have to adapt to them. The weak only speak out when the strong allow them to, or when the strong become weak. In any case, the matter always depends on the position and condition of the strong ones.

When the Congress of Vienna established a new order in Europe in 1815, agreed to by the European powers (strong ones), it thereby passed judgment on one of the weak state, namely Poland. As long as the powerful accepted this order, Poland had no chance of regaining independence, that is, of changing it, and any insurrectionary efforts were doomed to failure. However, when this order began to be questioned by some of the powers, leading to the outbreak of World War I and the consequent significant weakening or even disintegration of the main European players, the weak ones, including Poland, were given a chance to speak out. When the Old Prussians launched their two major uprisings against the Teutonic Knights in 1242 and 1260, they did so at moments of significant weakening of that power. When women, who were naturally and, consequently, culturally weaker, gained partial equality with men in the 19th and 20th centuries, it was the result of the consent of the strong,

[15] Therefore, it is impossible to predict the future unambiguously and precisely based on the state of the world at a given moment (see more Mlodinow, *Matematyka...*, op. cit., chapter 10).

i. e. men. The Industrial Revolution simply caused a surge in demand for labor, which in turn led to changes in women's social position. Feminist movements were merely a side effect, one that men allowed. Needless to say, the owners of large companies during this period, and therefore the most influential figures, were men. Sometimes, the rise in women's social standing was the result of ideological actions, but again, needless to say, the initiators and animators of these actions were generally men. Such examples could, of course, be cited almost endlessly, but the most important observation is that to be the subject, rather than the object, of the changes taking place, one must simply be strong.

CYCLICAL NATURE OF HISTORY, CIVILIZATIONAL BREAKTHROUGHS AND HEGEMONIC SHIFTS

Another important issue, which I've already written about[16], but which is worth revisiting, is the cyclical nature of human history. We know the saying that history revolves around a circle, and the cyclical understanding of history has its roots in ancient times, particularly in Stoic thought[17]. In the 20th century, this view was developed by, among others, Oswald Spengler, Arnold Toynbee, and Pitirim Sorokin[18]. This did not prevent Francis Fukuyama from expressing, at the end of the 20th century, his famous yet naive view of the end of history[19], which was rightly and quite quickly criticized by many researchers and commentators[20]. Human history cannot achieve a certain stable ideological, axiological, political, or economic ideal, because such an ideal does not exist. It does not exist because, due to the imperfections of man and his mind, it cannot objectively exist. As a consequence, all the „ideals" that man creates are subject to change, lose their relevance and are replaced by new „ideals" that man strives for, thus creating a human history that has lasted, lasts and will last as long as man exists.

However, what is most important from the perspective of my analysis is that just as every person has a life cycle[21], just as businesses, economic sectors, products, and technologies have their life cycles[22], so do human cultures too. If we look at human history cross-sectionally, we can easily see that no culture has lasted forever, without beginning or end. Moreover, as with the life cycle of a person or a product, we can distinguish certain stages of development for each culture, from birth, through growth and maturity, to decline and death. The death of a given entity can be postponed through therapy, modernization, restructuring, or revival of the person, product, enterprise, or culture, respectively, but this cannot be done endlessly.

16 Szczurowski, *Analiza…*, op. cit., pp. 34–35.

17 A. Anzenbacher, *Wprowadzenie do filozofii*, Kraków 1992, p. 258.

18 See more O. Spengler, *Zmierzch Zachodu. Zarys morfologii historii powszechnej*, Warszawa 2014; A. J. Toynbee, *A Study of History*, vol. I–XII, London-New York-Toronto 1934–1961; P.A. Sorokin, *Social and Cultural Dynamics*, Boston 1957; P. A. Sorokin, *Modern Historical and Social Philosophies*, New York 1963.

19 See more F. Fukuyama, *The End of History and the Last Man*, New York 1992.

20 See more i. a. S. P. Huntington, *The Clash of Civilizations and the Remaking of World Order*, New York 1996.

21 See more i. a. B. Wolniewicz, *W stronę rozumu*, Warszawa 2015, pp. 134–147.

22 See more i. a. G. Gierszewska, M. Romanowska, *Analiza strategiczna przedsiębiorstwa*, Warszawa 2003, pp. 191–200.

In this context, it's worth emphasizing that phenomena such as wars, economic crises, and natural disasters are repetitive. This is also true of the lives of individual human cultures and the stages of those lives. True, nothing in history happens exactly the same way twice, but similarly and more than twice, and human societies make the same mistakes over and over again with astonishing consistency and repetitiveness. Georg Hegel once put it simply: „(...) history teaches that people learn nothing from history (...)"[23]. There's something to this. On the other hand, it's sometimes said, following Cicero, that *historia magistra vitae est* („history is the teacher of life"), but what good is that if people, *en masse*, refuse to learn because it's more convenient? It's long been known that the happiest life is for the ignorant. As Erich Remark so aptly put it in the words of one of the characters in the novel *The Three Comrades*: „The less a man knows, the easier it is for him to live. Knowledge gives freedom, but it makes him unhappy."[24]

When analyzing Poland's relations with the BRICS from a historiosophical perspective, one cannot ignore the issue of civilizational breakthroughs. Civilizational development can be viewed from several perspectives. First, from a technological perspective – from the aforementioned Neolithic Revolution, through the Industrial Revolution, to the digital (information) revolution, with particular emphasis on artificial intelligence[25]. Second, from a political (institutional) perspective – from the horde, through tribal-lineage and chieftaincy systems, to the state with its various models of functioning, which is considered the highest form of human society organization[26]. Third, from a socio-economic perspective – from the primitive community, through slavery and feudalism, to capitalism and socialism (with its extreme form in communism) and various hybrids[27]. Fourth, from the ideological perspective – from the simplest forms of shamanism and animism and extensive polytheisms (natural religions), through expansive monotheisms (revealed religions), to a whole range of secular ideologies in various varieties, remembering that a specific ideology is the basis of every human culture (the axionormative system of every community, among other things, has its source in ideology)[28].

Since I mentioned the state above as the highest form of organization of human societies, it is worth emphasizing that state power is a fundamental property of human action, the logic of which remains unchanged throughout human history, with only tools (technological progress) and environmental conditions changing. The science of human action (praxeology) tells us that people, as elements of a complex social organism such as the state, function in competitive conditions, in

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23 G. W. F. Hegel, *The Philosophy of History*, Kitchener 2001, p. 19.

24 E. M. Remarque, *Trzej towarzysze*, Warszawa 1990, meeting at Gottfried Lenz's.

25 See more i.a .Szczurowski, *Analiza...*, op. cit., pp. 48–51. Further literature there.

26 See more i. a. Szczurowski, *Analiza...*, op. cit., pp. 51–55. Further literature there. Especially see T. C. Lewellen, *Antropologia polityczna. Wprowadzenie*, Kraków 2010; J. C. Scott, *Jak udomowiono człowieka. U początków historii pierwszych państw*, Warszawa 2023.

27 See more i. a. Szczurowski, *Analiza...*, op. cit., pp. 55–58. Further literature there. Especially see M. Bloch, *Społeczeństwo feudalne*, Warszawa 2002; F. Braudel, *Kultura materialna, gospodarka i kapitalizm XV-XVIII wiek*, vol. I-III, Warszawa 2019; J. A. Schumpeter, *Kapitalizm, socjalizm, demokracja*, Warszawa 2009.

28 See more i. a. Szczurowski, *Analiza...*, op. cit., pp. 58–62. Further literature there. Especially see P. Boyer, *I człowiek stworzył bogów...*, Warszawa 2005; A. Wierciński, *Magia i religia. Szkice z antropologii religii*, Kraków 2010.

a world of limited resources, which compels them to act. People and the organizations they create (states, enterprises) compete for these resources, which they do through struggle (negative-sum game) and cooperation (positive-sum game), with each form of competition taking on a mixed character, either with a greater share of struggle or a greater share of cooperation. Whoever is more efficient and effective in this action, in this competition, wins. Therefore, the above-mentioned state power can be defined as the ability to act – to create or destroy[29].

After this explanation, we can move on to identifying the civilizational breakthroughs relevant to these considerations. Since antiquity, large, complex cultures have developed on the European continent, associated with a settled lifestyle and taking the institutional form of states. These can be described as civilizations, composed of smaller cultures that differ from each other but are united by certain fundamental common features[30]. There is no established, uniform typology of civilizations in the literature; various authors have developed their concepts, including my own, which I based on two fundamental criteria: ideology and socioeconomic system. On this basis, I distinguished Greco-Roman civilization (based on a polytheistic natural religion and a system of slavery), then Latin civilization (Christianity in the Latin rite and the feudal system), and finally Western civilization, with its various varieties of Protestantism (transforming into secular ideologies, with liberalism at the forefront) and the capitalist system (transforming into a developmentally regressive socialism). Thus, I identified the first significant civilizational breakthrough at the turn of antiquity and the Middle Ages, when the Western Roman Empire collapsed and a new civilizational order began to emerge in Europe, its foundations being Catholicism and feudalism. Latin civilization reached its maturity and thus the apogee of its power in the 13th century and then subsequently entered a phase of decline. The second key civilizational breakthrough occurred in the 16th century. Then, as a result of the Reformation and the transition to a commodity-money economy, Western civilization arose, reaching its peak of power in the second half of the 19th century and the first half of the 20th, dominating almost the entire world[31]. Currently, Western civilization is in an advanced phase of decline and, in my opinion, is reaching its end in the 21st century. It is being replaced by a global, corporatist civilization, closely linked to the decades-long growing power of large, supranational corporations. At the same time, its decline is being accelerated by the Chinese and Muslim civilizations, although each in its own way. We are therefore witnessing another civilizational breakthrough, one that presents certain threats but

[29] See more M. Sułek, E. Szymala, *Potęga państw 2025. Rankingi potęgometryczne*, Warszawa 2025, pp. 8–11. Further literature there. Especially see T. Kotarbiński, *Traktat o dobrej robocie*, Łódź 1955; L. von Mises, *Human Action. A Treatise on Economics*, Auburn 1998; R. Aron, *Peace and War. A Theory of International Relations*, New Brunswick & London 2003; M. Sułek, *Praxiology. A New Approach* in: W. Gasparski (ed.), *Praxiology. The International Annual of Practical Philosophy and Methodology*, 25, New York & London 2018, pp. 152–161.

[30] Szczurowski, *Analiza…*, op. cit., pp. 39 and 63. Further literature there. Similarly see F. Koneczny, *O wielości cywilizacyj*, Kraków 1935, p. 311.

[31] See more Szczurowski, *Analiza…*, op. cit., pp. 63–65 and 86–95. Further literature there. Cf. i. a. Spengler, op. cit., pp. 43–47 and 270–284; Toynbee, especially vol. I and II; Koneczny, *O wielości…*, op. cit.; F. Koneczny, *O ład w historii. Z dodatkami o twórczości i wpływie Konecznego*, Londyn 1977; J. Kossecki, *Podstawy nowoczesnej nauki porównawczej o cywilizacjach. Socjologia porównawcza cywilizacji*, Katowice 2003; Huntington, *The Clash…*, op. cit., especially chapters 1 and 2; J. Szacki, *Historia myśli socjologicznej*, Warszawa 2002, chapter 18; Ferguson, op. cit., pp. 25–28 and 40–45.

also significant opportunities for countries like Poland[32]. It is worth noting that the thesis about the end of Western civilization in the 21st century is consistent with the conclusions drawn from the results of anthropological research (the sphere of sexual regulation in human societies) by Joseph Unwin[33], with the conclusions of Walenty Nowacki regarding the deterioration of the quality of power elites (the loss of rationality in the actions of political leaders) in developed countries[34], as well as with the culminations of Raymond Wheeler's weather cycles[35], which I have already pointed out[36].

Of course, the issue of civilizational development and civilizational breakthroughs should be analyzed through the lens of social psychology, evolutionary biology, and neurobiology, that is, through the lens of the human being – a being characterized by specific attributes, who, on the one hand, possesses specific natural (biological) characteristics, on the other possesses the capacity to create culture, on the third is conformist, and on the fourth is highly susceptible to a range of mechanisms of social influence and, consequently, to various types of manipulation. This, in turn, means that skillful management of people's illusions and delusions is a key competence in exercising power[37]. It is important not to forget the cyclical nature of history and that the highest form of organization of human society is the state, as discussed above. It is also important to remember the exceptionally enduring historical division of societies into elites and the people, the roles of both these social groups, and the dominant tendencies of *longue durée* in civilizational development[38]. At the same time, we cannot ignore key economic issues (the fundamental role of capital and productive assets accumulation in the formation and development of states, the structure of the economy, the importance of debt, the strength of the currency) and the long-term global phenomena that overlap

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32 See more Szczurowski, *Analiza…*, op. cit., pp. 117–136, 145–167 and 239–256. Further literature there.

33 See more J. D. Unwin, *Sex and Culture*, London 1934, especially p. 412; https://www.kirkdurston.com/ blog/unwin (access May 18, 2025).

34 See more https://www.sprawynauki.edu.pl/archiwum/dzialy-wyd-elektron/288-filozofia-el/1980-ucieczka-od-logiki (access May 18, 2025); https://www.sprawynauki.edu.pl/archiwum/dzialy-wyd-elektron/288-filozofia-el/4217-madrzy-przegrywaja-z-glupimi (access May 18, 2025).

35 See more R. H. Wheeler, *Climate. The Key to Understanding Business Cycles. With a Forecast of Trends Into the 21st Century*, Linden 1983; https://cyclesresearchinstitute.org/cycles-research/weather/wheeler/ (access May 18, 2025).

36 Szczurowski, *Analiza…*, op. cit., pp. 65–66, 153, 322–323 and 345–365.

37 See more Szczurowski, *Analiza…*, op. cit., 36–48, 84–85, 154, 352–353 and 433–436. Further literature there. Especially see J. Kossecki, *Tajniki sterowania ludźmi*, Warszawa 1984; J. A. Chmurzyński, *Natura – kultura. Opozycja czy koniunkcja?*, „Kosmos", 39, 1990, pp. 77–96; E. Nowicka, M. Głowacka-Grajper (ed.), *Świat człowieka – świat kultury. Antologia tekstów klasycznej antropologii*, Warszawa 2009, especially pp. 11–67 and parts III and IV; E. Aronson, *Człowiek – istota społeczna*, Warszawa 2012, chapter 2; R. B. Cialdini, *Wywieranie wpływu na ludzi. Teoria i praktyka*, Gdańsk 2013; L. Mlodinow, *Nieświadomy mózg. Jak to, co dzieje się za progiem świadomości, wpływa na nasze życie*, Warszawa 2016, especially chapters 1 and 2; T. Sharot, *Nasz wpływowy i uległy umysł. Jak mózg daje nam siłę wywierania wpływu na innych*, Warszawa 2018; T. Perz, *Biologiczne korzenie kultury w ujęciu Konrada Lorenza*, „Edukacja Humanistyczna", 2 (39), 2018, pp. 17–29; R. Wrangham, *The Goodness Paradox. The Strange Relationship Between Virtue and Violence in Human Evolution*, New York 2019, chapter 10. See also G. Le Bon, *Psychologia rozwoju narodów*, Warszawa 1897; G. Le Bon, *Psychologja tłumu*, Lwów 1930.

38 See more Szczurowski, *Analiza…*, op. cit., pp. 66–68.

with civilizational breakthroughs, such as changes in the natural environment and their effects (for example, large-scale human migrations)[39] or hegemonic rivalry.

Speaking of hegemonic rivalry, it's worth turning to the hegemonic breakthrough we're currently witnessing, which is closely linked to a civilizational breakthrough. This is, of course, the American-Chinese rivalry. After several centuries of stagnation and decline, China launched an offensive in the late 1970s, remaining on a path of dynamic and multidimensional development ever since, and, from a certain point, on a path of global expansion. In this way, China challenged America, the current global hegemon, exerting pressure on it and placing it in a position of defending its position, with all the consequences. This is evident in economic data and in political and military actions. And although the Middle Kingdom has its problems, which constitute significant barriers to development, it also has fundamental advantages over the USA, which is part of the decadent, i.e. increasingly degenerate civilization of the West, and therefore I predict China's victory in this competition in the 21st century, which will have multidimensional and far-reaching consequences for Poland[40].

The US-China rivalry for global hegemony can also be conceptualized within a theoretical framework. In this context, it's worth recalling George Modelski's theory of hegemonic cycles (long cycles)[41]. This concept has been met with some criticism, but it nonetheless illustrates certain general patterns. According to this theory, we are currently in the US hegemony cycle in its third phase (delegitimization) or fourth (deconcentration). Alternatively, assuming that the first (shortened due to technological progress and accelerated economic flows) cycle of US hegemony ended with the US victory over the USSR, we are in the second US cycle, also in the delegitimization or deconcentration phase[42]. In any case, the next step is to return to the first phase, i.e., hegemonic war, although it should be remembered that power transition theory also allows for the possibility of a peaceful hegemon shift[43].

This rivalry can also be viewed from a cybernetic and powermetric perspective. Both calculations based on the theory of autonomous systems and the cybernetic method of calculating individual states' shares in interstate control processes, as well as power-metric rankings, confirm the weakening of Western countries, led by the United States, and the growing power of China and a number of developing

39 See more Szczurowski, *Analiza…*, op. cit., pp. 68–85, 95–96 and 136–145. Further literature there.

40 See more Szczurowski, *Analiza…*, op. cit., pp. 145–153 and 157–161. Sources and further literature there. Especially see K. Gawlikowski, *Chińskie metamorfozy. Cywilizacja konfucjańska a cywilizacja zachodnia*, Warszawa 2022; B. Góralczyk, *Nowy długi marsz. Chiny ery Xi Jinpinga*, Warszawa 2022, especially chapter I; C. Miller, *Wielka wojna o chipy. Jak USA i Chiny walczą o technologiczną dominację nad światem*, Warszawa 2023. See also L. Ślazyk, *Twierdza Chiny. Dlaczego nie rozumiemy Chin*, Warszawa 2024.

41 See more G. Modelski, *Long Cycles in World's Politics*, London 1987 and in condensed form Szczurowski, *Analiza…*, op. cit., pp. 153–154. Further literature there.

42 See more https://strategyandfuture.org/rozwazania-o-cyklach-modelskiego/ (access May 18, 2025).

43 See more M. Midlarsky (ed.), *Handbook of War Studies*, Boston 1989, chapter 7.

countries[44]. These clearly indicate that for several decades, global hegemony and the global center of civilization have been shifting from the West to the Far East.

POLAND'S CIVILIZATIONAL AND STRATEGIC POSITION AND ITS PROSPECTS

From the beginning of its existence, Poland has been on the periphery of civilization, first at the fringes of Latin civilization, then in a civilizational straddle (still peripheral), a state in which it persists to some extent to this day, and now on the periphery of a decaying Western civilization. This perennial civilizational peripherality largely defines the mentality of Poles, and, most importantly, the mentality of the Polish ruling elites, which can be summarized in terms such as the „neophyte complex," the „poor relative complex," the „beggar complex," or the „prostitute-in-need-of-a-pimp complex." This, in turn, determines the dependent, not to say servile, way in which these elites function towards external forces, which, of course, does not favor Poland's long-term development. The question therefore arises: is it possible to break free from this civilizational peripherality and become a civilizational core? Of course, it is, as England is a striking example. However, opportunities for such a civilizational leap occur very rarely, at moments of historical upheaval, creating historical windows of sorts. Poland already had two such windows – the first at the turn of the 10th and 11th centuries, and the second in the 15th and 16th centuries – but for various reasons, it failed to capitalize on both[45].

Now, in the 21st century, a third historical window has emerged for Poland, raising the question, both research-wise and beyond: will Poland capitalize on it and become a regional power with its own sphere of influence? Or, due to its internal weaknesses, which will deepen over time, will it repeat its path to decline from the 17th and 18th centurie? Especially since another opportunity may never come again. What does this historical window consist of? It's a situation, to use the terminology of a SWOT/TOWS analysis[46], in which significant opportunities in the external environment (in this case, Poland's) significantly outweigh significant threats. And that's precisely the case at this moment (in the historiosophical sense), although someone who watches television often might have the opposite impression.

It's worth mentioning at least some of these significant opportunities, remembering that opportunities can be exploited, but they can also be squandered and, through misconduct, turned into threats. Firstly, a major opportunity for Poland is the

[44] See more Szczurowski, *Analiza...*, op. cit., pp. 154–157. Further literature there. Especially see J. Kossecki, *Czy świat zmierza do jedności czy różnorodności? Analiza cybernetyczna procesów globalizacji* in: R. Stefański (ed.), *Jedność i różnorodność – wyzwanie globalizacji*, Toruń – Kielce 2008, pp. 275–280 and J. Kossecki, *Cybernetyka społeczna,* Warszawa 1981, chapter 13; J. Kossecki, *Metacybernetyka*, Warszawa 2015, chapter 14; https://instytuticas.wordpress.com/2018/09/22/cybernetyczna-analiza-procesow-sterowania-miedzynarodowego-cz-1-metoda-doc-kosseckiego/ (access May 18, 2025); R. Białoskórski, Ł. Kiczma, M. Sułek, *Potęga państw 2019. Rankingi potęgometryczne*, Warszawa 2019, pp. 9–22 and 32–39. See also Sułek, Szymala, pp. 31–71.

[45] See more Szczurowski, *Analiza...*, op. cit., pp. 99–111. Further literature there. Especially see J. Sowa, *Fantomowe ciało króla. Peryferyjne zmagania z nowoczesną formą*, Kraków 2011.

[46] See more H. Weihrich, *The TOWS Matrix – A Tool for Situational Analysis*, „Long Range Planning", 15, 2, 1982, pp. 54–66; See also Szczurowski, *Analiza...*, op. cit., pp. 112–115.

aforementioned hegemonic rivalry between America and China, which gives Poland greater bargaining power in relations with both powers than in a stabilized order. Another opportunity, particularly in the economic sphere, is participation in the Belt and Road Initiative (BRI), in which the Asian Infrastructure Investment Bank (AIIB) plays a key role. Another area is the still underutilized potential of economic, financial, technological, political, military, scientific, and educational cooperation with countries of the Far East and the Antipodes, including not only China but also Japan, South Korea, Taiwan, Singapore, Malaysia, Vietnam, Thailand, Indonesia, the Philippines, Australia, and New Zealand. Similarly, although to a slightly different extent, untapped potential lies in multidimensional relations with developing countries, including India, the Middle East (particularly Iran and Turkey), Central Asia (particularly Kazakhstan and Uzbekistan), Africa (particularly Ethiopia and Nigeria), and Latin America. Another major opportunity is the ongoing process of decomposition of the Russian Empire, which has been ongoing since the early 1990s. Although temporarily halted by Vladimir Putin, which is undoubtedly a great achievement from a historiosophical perspective, processes of *longue durée* have their own inertia that cannot be stopped in the long term. Next, we must mention the multidimensional degradation of Western states and societies (typical of the decline of civilization), bearing in mind that the weakness of some can be an opportunity and the strength of others. Closely related to this issue is the Islamization of Western Europe (in the broad sense), a result of long-term suicidal migration policies, which significantly weakens it and thus creates opportunities (economic and political) for Poland. A particular opportunity for Poland here is the gradual weakening of Germany and, in the long term, its decomposition. It's also worth remembering the still underutilized potential for cooperation (especially political) with the Intermarium countries, which constitute Poland's natural sphere of influence, a fact about which geography leaves no doubt. Furthermore, there are opportunities to expand and deepen political, economic, and military cooperation with Northern European countries (especially Sweden and Finland)[47]. These aren't all the opportunities Poland faces in 2025 and beyond, but this list alone demonstrates that they are exceptionally numerous and truly significant. There are also threats, of course, but they are much fewer and less significant[48].

I mentioned that the West has been weakening for several decades in cybernetic and powermetric terms. It should be added, however, that it is also weakening (especially its European part) economically, politically, intellectually, and in the most fundamental sense, demographically (biologically)[49], and even artistically[50] – in other words, in every possible way. Sometimes this weakening is only relative, and sometimes both relative and absolute. All of this, however, is an effect, and more important to understanding the phenomenon is the cause. This cause is the mentality of Westerners, and particularly the mentality of decadent Western elites, who are endowing their societies with a culturally destructive ideological hybrid (commonly,

47 See more Szczurowski, *Analiza…*, op. cit., pp. 136, 160–200 and 209–289. Sources and further literature there.

48 See more Szczurowski, *Analiza…*, op. cit., pp. 117–145 and 203–208. Sources and further literature there.

49 See more Szczurowski, *Analiza…*, op. cit., pp. 221–224, 322–323, 383 and 462–465. Sources and further literature there.

50 See more https://oczamiduszy.pl/w-lysiak-o-sztuce-wspolczesnej/ (access May 19, 2025).

but in my opinion, erroneously, called neo-Marxism or cultural Marxism) typical of a civilization of prosperity. One of its most important features, perhaps even the most crucial from the perspective of the dying civilization, is moral liberalism combined with a cult of weakness and victims (real or imagined)[51]. Almost a century ago, Unwin, whom I have already cited, demonstrated that freedom in the sphere of sexual relations inevitably leads to the decline of culture, simultaneously identifying the most culturally effective model of gender regulation[52]. Sorokin, whom I have already cited as well, also continued his research on this issue, reaching very similar conclusions[53]. Significantly, the results of Unwin's and Sorokin's research, although several decades old, have not yet been questioned in accordance with the requirements of the philosophy of science. Moreover, subsequent Western experience has only confirmed them. The result of this sexual freedom and the culture of weakness (victims), pleasure, and comfort is a profound crisis of the family (the degradation of men, and especially, fathers), a reluctance to exert effort (the devaluation of work), and a demographic collapse. If we add to this the other consequences of the ideological hybrid of the decadent West, such as shame for its own culture, the atomization of societies that weakens the sense of community, as well as the fundamental issue of the crisis of the axionormative system, which is imprecise and inconsistent, preventing its application and ultimately leading to social anomie in the long run, as well as a whole range of whims characteristic of the culture of prosperity, it is easy to see that the very foundations of civilization have been profoundly damaged, which significantly limits the boldness, rationality, and effectiveness of actions undertaken by individual Western countries[54]. In light of the above, it is worth noting the degenerative tendencies in capitalism that have been affecting it for many decades (including in Poland)[55], as well as the change in the global trend in the second decade of the 21st century, when, after a period of expanding the reach of liberal democracy, there was a shift towards autocracy[56].

This is crucial because all these effects of Western civilization's prosperity also affect Poland, although, crucially, with a certain delay. This, on the one hand, is its weakness (that it affects it at all), but on the other, it is its very significant strength, because in relative (comparative) terms, Poland is in a better position than countries west of the Oder River, a situation that can be exploited in its long-term interests. This brings us

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51 See more Szczurowski, *Analiza…*, op. cit., pp. 87–91, 224–232 and 344–364. Further literature there.

52 See more Unwin, op. cit., pp. 313–432 and in condensed form Szczurowski, *Analiza…*, op. cit., pp. 345–348.

53 See more P. A. Sorokin, *The American Sex Revolution*, Boston 1956.

54 See more Szczurowski, *Analiza…*, op. cit., i. a. pp. 350–364. Further literature there.

55 See more i. a. J. Burnham, *The Managerial Revolution. What is Happening in the World*, New York 1941; J. Tittenbrun, *Kapitalizm patrymonialny*, „Przegląd Zachodni", 2, 2000, pp. 83–107; https://mises.pl/artykul/holcombe-kapitalizm-kumoterski-produkt-uboczny-duzego-rzadu (access, May 20, 2025); J. Kotkin, *The Coming of Neo-Feudalism. A Warning to the Global Middle Class*, New York 2020; Szczurowski, *Analiza…*, op. cit., pp. 133, 301 and 400–401.

56 See more i. a. S. P. Huntington, *Trzecia fala demokratyzacji*, Warszawa 2009; V. A. Boese, N. Alizada, M. Lundstedt, K. Morrison, N. Natsika, Y. Sato, H. Tai, S. I. Lindberg, *Autocratization Changing Nature? Democracy Report 2022*, V-Dem Institute 2022; E. Papada, D. Altman, F. Angiolillo, L. Gastaldi, T. Köhler, M. Lundstedt, N. Natsika, M. Nord, Y. Sato, F. Wiebrecht, S. I. Lindberg, *Defiance in the Face of Autocratization. Democracy Report 2023*, V-Dem Institute 2023.

to the issue of the weaknesses and strengths of the state called the Republic of Poland. Yes, Poland as a state is characterized by a number of significant weaknesses that significantly limit its ability to take advantage of the favorable environment and thus achieve long-term development commensurate with its potential. Let us mention only the most significant of them. Without a doubt, the most crucial weakness of the Republic of Poland is the very low mental, intellectual, and moral quality of its elites, especially the political elites, whose wretched form is completely incompatible with the breakthrough times we are currently experiencing. Another crucial issue is the crisis in science and education and the related technological backwardness. The above is compounded by an ideological and axionormative weakness, a defining factor in Polish mentality. This weakness stems from both the Poland's excessively long and excessively deep dependence on the papacy and Catholicism (and thus on the progenitors of supranational corporations), compounded by Soviet influence after World War II, and the contemporary ideological influences of the decadent West. Other significant issues include the institutional and legal weakness of the Polish state, the demographic and social structure crisis, and the military and foreign policy weakness. It's also worth mentioning the ineffectiveness of the political and socio-economic systems, as well as the consequences of the multidimensional colonization of Poland and Poles. However, the Republic also has its strengths, although a frequent television watcher might get the impression that the Polish state is a vast ruin. First, as I mentioned, Poles have so far been less affected by civilizational degeneration than Western Europeans, which gives the former a certain advantage over the latter. Poland's great asset, contrary to the established stereotype, is its geographic location and natural resources, which the Polish state has yet to adequately capitalize on. Another important asset is the exceptional entrepreneurial potential of Poles, which has also been underutilized, or even suppressed. It's also worth mentioning its high level of internal security, particularly the low crime rate (something Western Europeans can only dream of), its food self-sufficiency, and its increasingly improved infrastructure. Another strength of Poland is its cultural homogeneity, which offers significant potential for safe (reasonably selective) immigration. Unfortunately, the Polish state has yet to develop a sensible migration strategy. Finally, it's also important to note Poland's enormous image potential, which is crucial in the digital (information) age, and which has not yet been optimally utilized[57].

The clear preponderance of opportunities in Poland's environment and the slight preponderance of its weaknesses over its strengths, in accordance with the SWOT/TOWS concept[58], dictates the application of a competitive strategy, followed by an aggressive one[59]. One of the actions within these strategies can and should be Poland's cooperation with BRICS, particularly with China. There is no doubt that Poland's civilizational and strategic position is relatively strong, offering significant opportunities for multidimensional expansion. Whether these opportunities are exploited in the long term through appropriate political decisions depends solely on the Polish ruling elites. If these elites possess the appropriate mental and intellectual qualities, and are constantly guided by the words of former British minister and Prime

57 See more Szczurowski, *Analiza…*, op. cit., pp. 308–484. Sources and further literature there.

58 See more Weihrich, op. cit., pp. 60–61; Gierszewska, Romanowska, op. cit., pp. 240–241; Szczurowski, *Analiza…*, op. cit., pp. 485–486.

59 See more Szczurowski, *Analiza…*, op. cit., pp. 486–488.

Minister Henry Temple („We have no eternal allies and no permanent enemies" and „Our interests are eternal, and it is our duty to pursue them")[60], they will know how to approach BRICS and other Chinese initiatives in a manner that reflects Polish interests.

BRICS AS AN ELEMENT OF THE CIVILIZATIONAL BREAKTHROUGH AND HEGEMONIC SHIFT OF THE 21ST CENTURY

Before discussing the role of BRICS in the time of civilizational and hegemonic breakthrough, I must again mention[61] the Shanghai Cooperation Organization (SCO). Its member states (China, Russia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, India, Pakistan, Iran, and Belarus) encompass virtually the entire geopolitical Heartland and most of the Asian Rimland[62]. This geopolitical cohesion is of some importance. On the first day of September 2025, the SCO's summit took place in China with great fanfare. In addition to the heads of the aforementioned member states, representatives of states with partner and observer status, as well as important guests, were present. The anti-Western, and especially anti-American, stance became increasingly visible, as did Russia's weakening position and the growing strength of China and India. At China's initiative, the establishment of the Shanghai Cooperation Organization Development Bank was agreed upon. Among other documents, the Tianjin Declaration (which almost directly challenges Western hegemony) and the SCO Development Strategy to 2035 were adopted. Furthermore, China pledged financial support for the organization's member states (2 billion yuan in non-repayable aid and 10 billion yuan in loans)[63]. It is also worth reiterating the role of the Belt and Road Initiative and the Asian Infrastructure Investment Bank, regional initiatives such as the 14+1 format (formerly 16+1 and 17+1), and the systematic strengthening of China's position in global organizations such as the World Health Organization[64]. BRICS should therefore be considered one of many instruments of China's global expansion and its pursuit of a global hegemony. Although the official initiator of BRICS (initially known as BRIC) was Russia, there can be no doubt that the main player in this intergovernmental organization is China, which has a number of important reasons to participate in this undertaking, of course in order to pursue its long-term interests[65].

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60 H. Kissinger, *Dyplomacja*, Warszawa 2021, p. 101.

61 See Szczurowski, *Analiza…*, op. cit., pp. 146–147.

62 See more http://eng.sectsco.org/ (access June 25, 2025). Cf. J. Bartosiak, *Pacyfik i Eurazja. O wojnie*, Warszawa 2016, map 1.1., p. 201.

63 https://eng.sectsco.org/20250901/1963431.html (access September 4, 2025); https://www.money.pl/gospodarka/szczyt-w-chinach-to-przelom-raczej-zreczny-pr-by-zagrac-trumpowi-na-nosie-7195554434792384a.html (access September 4, 2025); https://pl.belsat.eu/88669801/szczyt-szanghajskiej-organizacji-wspolpracy-chiny-zblizaja-sie-z-indiami-rosja-w-ich-cieniu (access September 4, 2025).

64 See more Szczurowski, *Analiza…*, op. cit., pp. 161–167 and 476. Sources and further literature there.

65 More on this topic see i. a. D. Monyae, B. Ndzendze (ed.), *The BRICS Order. Assertive or Complementing the West?*, Cham 2021, pp. 111 and next. Further literature there. See also there about the history and origins of BRICS, pp. 11 and next.

Its dominant and steadily growing position within BRICS is readily apparent in the powermetric data in the table below (Table 1)[66]. Over the past three decades, China has clearly grown in power across all analyzed areas (economic, military, geopolitical) and has gained a growing advantage over the other countries in the ranking. It's also worth noting that most BRICS countries are experiencing power growth in the three aforementioned categories, making this an association of countries whose overall power is growing, particularly thanks to China, and secondarily, India, which is already overtaking Russia.

Table 1. Economic, military and geopolitical power of current BRICS members 1992–2023 (mM, world = 1000)

COUNTRY	ECONOMIC POWER		MILITARY POWER		GEOPOLITICAL POWER	
	1992	2023	1992	2023	1992	2023
China	37,440	161,785	59,881	101,278	52,401	121,447
Russia	26,714	25,363	26,544	46,661	26,601	39,562
India	24,217	50,032	21,521	40,869	22,420	43,923
Brazil	20,074	27,004	6,506	16,400	11,029	19,935
Indonesia	9,599	17,866	6,203	7,314	7,335	10,831
South Africa	7,135	5,301	3,899	2,294	4,977	3,296
Iran	4,680	6,197	n/a	7,072	n/a	6,780
Egypt	3,370	6,124	8,938	3,886	7,082	4,632
UAE	1,446	3,144	4,977	6,010	3,800	5,055
Ethiopia	1,344	3,532	n/a	2,309	n/a	2,717

Source: own study based on Sułek, Szymala, op. cit., tab. 4, pp. 31–37.

If we simultaneously look at a similar table covering the most powerful countries of the broadly understood West[67] (Table 2), we notice the opposite trend: a decline in their power (led by America) over the last three decades. Of the sixteen countries included in the table, only Australia, South Korea, and Poland are exceptions, having recorded significant growth during the analyzed period. The West as a whole has, of course, been experiencing a significant decline in its power for many decades[68]. If we glance at a world map showing the countries that saw their power grow or decline between 1992 and 2023, we can easily see that, with few exceptions, the countries of the Global South are growing, while those of the Global North are weakening, also with few exceptions[69].

66 For the theoretical and methodological basis of the powermetric rankings mentioned here, see Sułek, Szymala, op. cit., parts I and II.

67 For information on which countries I include in the broadly understood West, see Szczurowski, *Analiza…*, op. cit., pp. 285–286. Cf. Sułek, Szymala, op. cit., p. 65.

68 See more i. a. Sułek, Szymala, op. cit., tab. 4, pp. 31–38 and 67–71.

69 Sułek, Szymala, op. cit., p. 53.

Table 2. Economic, military and geopolitical power of the strongest Western countries in 1992–2023 (mM, świat = 1000)

COUNTRY	ECONIMIC POWER		MILITARY POWER		GEOPOLITICAL POWER	
	1992	2023	1992	2023	1992	2023
USA	158,962	156,318	255,747	231,868	223,485	206,684
Japan	68,488	26,208	20,295	16,930	36,359	20,023
Germany	41,780	24,874	25,032	18,681	30,615	20,745
France	31,180	19,394	28,378	19,360	29,312	19,371
Italy	27,808	14,471	15,915	11,584	19,879	12,546
Great Britain	25,372	18,913	23,034	18,748	23,814	18,803
Canada	20,588	18,712	13,753	11,426	16,031	13,855
Spain	16,793	11,659	7,638	8,143	10,690	9,315
Australia	12,336	14,602	8,812	13,685	9,986	13,991
South Korea	9,893	10,431	12,344	15,885	11,527	14,067
Netherlands	7,108	5,587	4,762	4,218	5,544	4,675
Sweden	7,047	4,324	4,763	3,138	5,524	3,533
Taiwan	5,572	4,730	8,254	6,503	7,360	5,912
Switzerland	5,143	4,190	2,092	1,967	3,109	2,708
Belgium	4,877	3,481	2,913	1,866	3,568	2,405
Poland	4,592	6,738	5,615	8,440	5,274	7,873

Source: own study based on Sułek, Szymala, op. cit., tab. 4, pp. 31-33.

Additionally, it is worth analyzing the GDP and GDP at purchasing power parity (PPP) of the BRICS countries at the end of 2024 (Table 3). In my opinion, the latter indicator better reflects the economic strength of a given country or association. China's GDP share in the GDP of all BRICS countries is a staggering 62%, while the BRICS share in global GDP is 27%. In the case of GDP measured by purchasing power parity, the BRICS share in global GDP at PPP is a staggering 39%, with China accounting for half of this figure. It is also worth noting India's significant PPP GDP[70]. This again highlights the significant and constantly growing influence of BRICS on the global economy and which BRICS member has a leading position. It is important to remember that economic growth, and thus the increasing military and political position of countries such as China, India, Indonesia, the UAE, and Iran, is expected to be long-term, and other developing countries are already queuing to join BRICS. It's also worth mentioning that at the turn of the 21st century, it was predicted that the BRIC countries (at that time without South Africa) would eventually overtake the G7 countries in terms of GDP and consumer spending, a fact that is now becoming a reality. BRICS economies initially grew even faster than forecast[71]. Suffice it to say that over three decades (1990-2019), the combined size of BRICS economies increased

[70] For more information on India's potential and its relationship to BRICS, see i. a. Monyae, Ndzendze, op. cit., chapter 4. Further literature there.

[71] Monyae, Ndzendze, op. cit., p. 109.

by 356.27%[72], while the value of intra-BRICS trade increased six-fold between 2001 and 2022[73]. Furthermore, it can be expected that, based on significant demographic and industrial potential, BRICS economies will soon dominate the global economy and thus form the foundation of the global economic system.[74]

Table 3. GDP and GDP PPP of BRICS countries at the end of 2024 (USD billion)

COUNTRY	GDP	GDP PPP
China	18 744	38 190
India	3 913	16 191
Brazil	2 179	4 735
Russia	2 174	6 921
Indonesia	1 396	4 663
UAE	537	848
Iran	437	1 689
South Africa	400	989
Egypt	389	2 225
Ethiopia	127	433
BRICS	**30 296**	**76 884**
THE WORLD	**111 330**	**197 430**
CHINA'S SHARE IN BRICS	**62%**	**50%**
BRICS SHARE IN THE WORLD	**27%**	**39%**

Source: own study based on https://data.worldbank.org/indicator/NY.GDP.MKTP.CD (access July 3, 2025) and https://data.worldbank.org/indicator/NY.GDP.MKTP.PP.CD (access July 3, 2025).

If we add to the above data that the population of the current ten BRICS countries constitutes almost half of the world's population (with less than 10% of the G7 countries)[75], that the territory of these countries occupies a quarter of the world's land area, that they account for about a quarter of global trade, that they account for 40% of global oil production[76], that 40% of all Internet users live in the BRICS countries, that they are responsible for about 30% of global exports of goods related to information and communication technologies (ICT)[77], that the countries of the BRICS top five account for about half of global agricultural production[78] (42% for

72 https://www.sciencedirect.com/science/article/abs/pii/S2211464524001131 (access August 17, 2025).

73 https://brics-econ.arphahub.com/article/139877/ (access August 18, 2025).

74 Monyae, Ndzendze, op. cit., pp. 109–110. Further literature there.

75 https://www.banque-france.fr/en/publications-and-statistics/publications/expansion-brics-what-are-potential-consequences-global-economy (access August 17, 2025).

76 https://afripoli.org/building-a-bloc-from-brics-assessing-chinas-strategic-interests-and-influence (access August 17, 2025).

77 https://www.orfonline.org/research/balancing-development-and-digital-harms-assessing-the-brics-digital-agenda (access August 17, 2025).

78 https://www.sciencedirect.com/science/article/abs/pii/S2211464524001131 (access August 17, 2025).

wheat, 52% for rice, and 46% for soybeans)[79], then we can easily realize the power of the multidimensional potential of BRICS and the power of attraction of the countries of the Global South of this organization.

The economic cooperation of the BRICS countries is supported by the Shanghai-based New Development Bank, established in 2015. It can be viewed as a competitor to the World Bank and the International Monetary Fund[80]. BRICS, led by China, has long been widely known for its intentions to undermine the Bretton Woods financial system, primarily by stripping the US dollar of its reserve currency status in international transactions. The idea of creating a common BRICS currency, which would ultimately supplant the US dollar in global trade, and even a common payment system based on blockchain technology, has also emerged[81]. Implementation is not easy, as America has been consolidating its position in this area for decades, realizing that having a reserve currency gives it great power in relations with other countries. Nevertheless, it seems certain that in the long term, the US dollar will eventually dethrone itself, which will be a powerful blow to the US's economic and political position. It's worth remembering that as China grows, its power of attraction will increase, while that of the US will weaken. This power is already being weakened by the actions of Donald Trump's administration (tariff wars against almost everyone in the world, including within the West), which seems to misunderstand that its decisions are only accelerating America's dethronement as global hegemon. Well, as I often say, each phase of a civilization's life cycle determines its savior. And since the pressure is on the hegemon, which is losing its position, as mentioned above, it is making nervous moves, while at the same time the main and, for now, only candidate for the new hegemon is calmly pursuing its own agenda, for example, by changing the law on the export of technologies and products related to rare earth elements, which will have far-reaching economic, political, and military consequences on a global scale, severely disrupting the existing world order[82]. It is also doing its part with the help of the BRICS initiative, an initiative whose members are increasingly eager to use artificial intelligence in various areas of state functioning, including in combating crime[83].

As mentioned above, a number of countries are interested in joining BRICS (some currently have so-called partner country status), including several with significant potential and significant geopolitical importance for Poland (Belarus, Kazakhstan,

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79 https://www.idcpc.org.cn/english2023/opinion/202411/t20241108_165925.html (access August 17, 2025). On the BRICS position in global agricultural trade, see i. a. https://www.intereconomics.eu/ contents/year/2024/number/3/article/brics-world-heavyweight-in-agricultural-trade.html (access August 18, 2025).

80 See more i. a. https://www.ndb.int/ (access July 1, 2025); http://www.taiheinstitute.org/Content/2024/02-02/1954124404.html (access August 18, 2025).

81 See more i. a. https://www.voanews.com/a/common-currency-on-agenda-for-south-african-brics-summit/7090756.html (access August 27, 2025); https://www.atlanticcouncil.org/blogs/menasource/china-dedollarization-north-africa/ (access August 27, 2025); https://www.financialexpress.com/policy/economy/brics-unveils-symbolic-banknote-pushes-for-local-currency-trade-amid-dollar-debate/3648619/ (access August 27, 2025); https://investingnews.com/brics-currency/ (access August 27, 2025).

82 See more i. a. https://next.gazeta.pl/next/7,172392,32311648,chiny-szachuja-zachod-bedziemy-ugotowani-nowe-prawo-wchodzi.html (access October 10, 2025).

83 See more i. a. https://brics.br/en/news/brics-prosecutors-endorse-declaration-on-artificial-intelligence-in-combating-crime (access October 5, 2025).

Nigeria, Turkey, Uzbekistan, Vietnam)[84]. Meanwhile, Saudi Arabia and Argentina have been standing at a geopolitical crossroads between the West and BRICS for some time[85]. In any case, there is no doubt that BRICS has significant long-term growth potential in the political, economic, and military spheres. And when you look at a world map with BRICS countries (member and partner) and Western countries marked, it's easy to see that BRICS surrounds the West from the east and south.

Of course, BRICS also has its weaknesses. This organization is not as geopolitically cohesive as the Shanghai Cooperation Organization, but considering that they are not competitors – in fact, they complement each other – and both are dominated by China, the fact that BRICS lacks geopolitical cohesion is relatively insignificant. A more significant weakness, however, is the cultural incoherence of BRICS members – they belong to different civilizations (Chinese, Indian, Muslim, Turanian, Latin American, and peripherally Western)[86]. To this can be added tensions between the two largest BRICS powers, China and India[87], the currently rather weak organizational integration, and a whole range of weaknesses of individual member states[88].

However, far more important than the BRICS' weaknesses themselves is their comparison with those of the West, primarily at the fundamental level. In recent decades, as shown above, the economic, military, and geopolitical power of the BRICS countries has been growing, while the power of Western countries in the same categories has been declining. The fundamental question, therefore, is what accounts for this and who is behind it? It is an economic truism that developing countries are developing faster than the most economically developed countries (the convergence effect). However, the issue is more complex and requires delving much deeper, into the issues discussed earlier, seeking answers in the foundations of civilization and taking into account the stage of life of Western civilization. After all, the economic (and consequently, the military and geopolitical) development of any given country does not arise out of nowhere. It stems from something. I have already mentioned the factors influencing the development of human societies, but it is worth recalling them briefly now: natural conditions, ideology (and consequently the axionormative system), institutions (their regulation and efficiency), key events and processes, and outstanding individuals.

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84 See more i. a. https://infobrics.org/ (access August 1, 2025); https://www.channelnewsasia.com/asia/ malaysia-indonesia-vietnam-thailand-brics-asean-global-south-russia-china-4699841 (access August 18, 2025); https://www.reuters.com/world/what-is-brics-who-are-its-members-2023-08-21/ (access August 18, 2025); https://www.gov.br/mre/en/contact-us/press-area/press-releases/nigeria-joins-brics-as-a-partner-country (access August 18, 2025); https://infobrics.org/ (access September 4, 2025).

85 See more i. a. https://carnegieendowment.org/emissary/2024/11/brics-saudi-arabia-hedging-why?lang=en (access August 18, 2025); https://www.batimes.com.ar/news/argentina/argentinas-brics-membership-in-doubt-as-opposition-rejects-move.phtml (access August 18, 2025); https://www.bbc.com/news/world-66525474 (access August 18, 2025).

86 For more information on civilizations, their complexity and the rivalry between them, see Szczurowski, *Analiza…*, op. cit., pp. 63–68, 85–95, 117–136, 157–158, 210–211, 239–254, 285–287 and 421–423. Further literature there.

87 See more i. a. Monyae, Ndzendze, op. cit., chapter 7. Further literature there.

88 On the weaknesses of the main player, i.e. China, see Szczurowski, *Analiza…*, op. cit., pp. 157–158. Further literature there.

The importance of natural conditions is diminishing with technological progress, and the differences in this area between the West and BRICS are not significant enough (both sides have their strengths and limitations) to consider this factor decisive. The decisive factors will therefore be those related to ideology and the axionormative system, as well as broadly understood institutions, with family at the forefront. These are the foundations of every civilization, and in the declining Western civilization, these are undergoing a far-reaching erosion. An ideological crisis (the internally inconsistent and culturally destructive ideological hybrid of the contemporary West – degrading fathers, disrupting families and the sense of community, significantly limiting the capacity of outstanding individuals to act, creating societies of weak individualists focused on satisfying basic needs, including sexual ones) brings with it an axionormative crisis (inconsistency in the norms and values of social life, and far-reaching flexibility in their enforcement – leading, among other things, to social anomie). Another consequence is the mentality and demographic crisis (passivity, reluctance to make an effort and take on challenges, lack of a sense of responsibility for the community, extinction of Western societies), which in turn leads to the degradation of state institutions and the erosion of the legal system and the socio-economic system (economic crisis), which in turn translates into the military and geopolitical weakness of the West, and so on until its death (accelerated by Islamization, which intensifies the breakdown of the structure of Western civilization), regardless of the civilizational convulsions (short-term growths) that always occur in such situations[89].

Some of the above phenomena also affect the BRICS countries, but overall, not to the same extent and complexity as the Western countries. Russia and South Africa are the most culturally degenerate (in some areas, even more so than the West), but this is advantageous for China, especially in the Russian case, because it gives the Middle Kingdom greater opportunities to make Russia dependent on it as a supplier of raw materials with a primitive, weak economy and a dying society, some of whose territories can be taken over in the long run. It's worth noting that Russia's relatively high short-term (historically speaking) military and geopolitical position in the aforementioned powermetric rankings is undoubtedly overstated (especially in terms of military power), as the war in Ukraine clearly demonstrates. It will weaken even further once Putin's rule ends – as already mentioned, an outstanding leader, regardless of one's opinion of his ethical qualities. In this context, it's worth emphasizing that the preponderance of outstanding leaders (led by Xi Jinping) lies with the East and BRICS, while the West is simultaneously experiencing a leadership crisis typical of civilizational decline. To conclude, Western civilization as a whole (led by the receding hegemon, America) has already had its cultural foundations so severely damaged that there's no hope for salvation, and the BRICS countries, led by China, will likely exploit this, despite their weaknesses. Of course, one can lament the lack of respect for human rights and democratic standards in China (and elsewhere), but from a historical perspective, this is a minor, irrelevant detail.

[89] See more Szczurowski, *Analiza...*, op. cit., pp. 221–238, 344–364, 379–384, 428–431 and 462–465. Sources and further literature there.

INSTEAD OF A SUMMARY, I.E. POLAND TOWARDS BRICS FROM A STRATEGIC PERSPECTIVE

The authors of the aforementioned power-metric ranking, defining East and West in a way very similar to my understanding of these concepts, note that the West has already lost its dominance to the East, and also observe a downward trend in Western power and an upward trend in the East. At the same time, they conclude that the forces are evenly matched and assume that this state of strategic balance will persist for a long time[90]. However, the above reasoning should be considered logically inconsistent and therefore erroneous. The facts quite clearly indicate a growing advantage for the East, led by China, which will gradually expand this advantage. There are no rational premises for the thesis of a long-term balance between East and West. On the contrary, the entire range of phenomena discussed above indicates that the West will continue to weaken in many dimensions, while the East's power will simultaneously grow in many dimensions.

There can be no doubt, therefore, that in the 21st century Poland will face the challenge of civilizational self-definition and, consequently, the choice of a hegemon with which it wishes to align itself in the long term. It will be a choice between the moribund West (led by America), to which Poland still belongs peripherally, and the rising East (led by China), which, from the perspective of its own long-term interests, it should join at the appropriate historical moment. It is clear that this issue is strategic in nature, not to say the most strategic possible. Such a shift in civilizational and hegemonic front is a process that requires a series of strategic actions and decisions. Who should make them? The Polish state's ruling elite, of course. Are the current ruling elites capable of this? Of course not. However, times of civilizational breakthrough and hegemonic shift are characterized by significant volatility, both in terms of the frequency of change and its depth, so anything is possible[91].

BRICS is a crucial element of China's global expansion in these crucial times, and the organization must be treated as one of the main tools of this expansion. It is in Poland's long-term interest to gradually draw closer to BRICS and utilize the rivalry between East and West, between China and the USA, as a negotiating lever in relations with both sides. Eventually, a historical moment will come when Poland crosses the Rubicon and clearly identifies itself on the side of the East. If it fails to do so, for example, by becoming a new *antemurale christianitatis*, it will end up like the rest of the West – simply miserable. Of course, as Poland's involvement in BRICS affairs and structures grows, its influence on the organization's shape should increase, and thus on the position of its members (and potential future ones), including those with whom Poland strategically disagrees[92].

As I mentioned above, the third historical window opened for the Polish state in the 21st century, giving it even greater development opportunities than the previous two, and BRICS may be one of the important tools that will allow Poland to take advantage of the unprecedented opportunities associated with this window.

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90 Sułek, Szymala, op. cit., p. 64.

91 In this context, see Szczurowski, *Analiza…*, op. cit., pp. 160–161 and 485–495.

92 In this context, see Szczurowski, *Analiza…*, op. cit., pp. 209–221 and 272–285.

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Valor da Matemática segundo Kant: fundamentos a priori

Summary

However my aim in this article has been animated by the conviction that even today what Kant has to say about mathematics, and arithmetic in particular, is of interest to the philosophy. Indeed, a central problem for Kant's mathematic philosophy was why the knowledge so obtained can be applied to all experience *a priori* and with certainty. There is an important aspect of Kant's answer to that question that I hardly touched on, namely the argument in the Analytic for the claim that mathematics necessarily applies to the objects of "empirical intuition".

Keywords: **Kant, mathematics, foundations, intuitions and judgment *a priori*.**

INTRODUÇÃO

Segundo Kant, o número é uma forma *a priori*, sendo este elaborado pela categoria do entendimento (*Verstand*). O intelecto é que constitui as sínteses de unidade e de generalizações. Como vamos analisar, segundo Kant, a síntese conceitual de número funda-se na intuição das imagens e tem a ver com a categoria da quantidade. Ao longo deste estudo, pretendemos determinar como Kant fundamenta o conceito de número, desde a Estética Transcendental até à Analítica Transcendental, integrando-o no âmbito do novo esquematismo gnoseológico.

1. VALOR DO NÚMERO

Porque razão sustenta Kant que a Aritmética depende da intuição sensível, particularmente porque é que as proposições aritméticas referem a intuição sensível? Isto leva-nos a colocar uma outra questão: porque são estas proposições de preferência sintéticas, mais do que analíticas? Assim, consideramos os pontos de vista de Kant segundo a lógica e suas relações com a Aritmética.

Com efeito, para clarificar esta questão, consideremos o conceito em Kant de intuição. Segundo o filósofo da "Aufklärung", a intuição é uma espécie de representação (*Vorstellung*) ou na linguagem de Descartes e de Locke uma "ideia". Ter intuições é um dos caminhos fundamentais pelos quais a mente (*Verstand*) pode referir a consciência dos objectos.

Segundo Kant, o conhecimento é intuição ou conceito (*intuitus vel conceptus*). As formas *a priori* referem-se nomeadamente ao objecto e é singular (*einzeln*), a última característica refere-se imediatamente pelos significados de uma insuficiência, que as coisas podem ter em comum.[1]

Esta definição de "intuição" tal como é conhecida, está em relação imediata com o objecto *in genere* e sem restrições. Logo, a intuição de um objecto é uma representação singular e imediata (*einzelne Vorstellung*). Sem a presença do objecto não existe uma intuição. Esta será a sua representação.[2]

A singularidade de uma intuição (*Intuition*), como representação, é usada naturalmente por Kant para mostrar que as formas da sensibilidade, espaço e tempo, são intuições e não conceitos.

Assim, *de facto*, Kant determina o passo decisivo na natureza da sensação na sua diferença a partir da intelecção, onde a intuição aparece como representação imediata e singular do objecto.[3] As intuições são contrastadas pelos conceitos, que se referem a objectos somente imediatamente pelo caminho de algumas propriedades e pelo caminho de intuições a que se referenciam indiferentemente para todos os objectos que possuem tais propriedades.

Poderemos pensar que o critério das relações imediatas pelos objectos para ser uma intuição é, naturalmente, uma formulação obscura da condição da singularidade. Isto significa, evidentemente, que o objecto de uma intuição (*Intuition*) é, em algum sentido, directamente presente ao "entendimento" (*Verstand*), como na percepção e que a "intuição" é, então, uma fonte, a única fonte de conhecimento imediato de objectos.[4]

Naturalmente que a Matemática, nomeadamente a Aritmética, é baseada numa "intuição" de objectos métricos (sólidos, planos, etc) que representa um "conhecimento imediato" e se traduz, segundo a Analítica Transcendental, como proposição sintética *a priori*, dado que não requer um argumento justificatório pelos princípios.[5]

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1 Cf. F. O'FARRELL, "Intuition in Kant's theory of knowledge", in: *Gregorianun*, 60 (1979), 482–483.

2 Cf. *Ibidem*, 484–485.

3 Cf. J. MOREAU, "Intuition and Apprehension", in: *Kant-Studien*, 71 (1980), 287–290.

4 Cf. *Ibidem*, 291–293.

5 Cf. I. KANT, "Kritik der reinen Vernunft", in: *Kant Gesammelte Schriften*, Berlin, Prussian Academy of Sciences, 1956, IX, A, 87; B, 120.

Para Kant, uma representação será um conceito que poderá ser sugerido como se se apresenta uma intuição. Entretanto, Kant nunca anotou, tal como conhecemos, implicações da possibilidade de representações singular não imediatas para o conceito de intuição.

De outra forma, dá a impressão de ser a ausência de critérios imediatos na *lógica* e o facto de Kant determinar conceitos, que parecem excluir essencialmente os conceitos singulares e que implicará que todas as representações sejam "intuições".

Segundo Kant, a Aritmética dá um *shining example* de uma produção objectivamente, na qual a mera representação do objecto constitui ambos os conteúdos sobre a actualidade do objecto e mostra os seus conceitos.[6]

Se a Aritmética considera o conceito *in concreto* e não empiricamente, mas *a priori*, pelo sentido da existência em matemática difere da existência empírica *a posteriori* e é tornada igual à constructibilidade. A Aritmética é uma construção formal ou "abstracta" que se fundamenta segundo a teoria do juízo em Kant. O matemático determina uma intuição (*Intuition*) objectivamente e está apto para ligar puramente *a priori* a abertura entre a razão discursiva e a exibição de uma intuição que mostra o conceito *in concreto*, onde todas as outras bandas do conhecimento é necessária para suportar o conhecimento *a priori* usando a via da verificação empírica.

Para Kant, o matemático constrói ou exibe o seu objecto numa intuição *a priori*, onde pensar e conhecer não estão separados na Aritmética.[7]

A intuição, que desempenha um papel fundamental na Aritmética, e que não é o resultado directo da afecção da nossa mente pelos objectos, expressa um elemento intuitivo, que temos dentro das nossas formas de "intuição" e que, neste sentido, será uma intuição da sensibilidade externa para o espaço numérico, bem como para o espaço métrico. Pela via da Aritmética, na sua fundamentação pela Estética Transcendental, será uma intuição sensível no sentido de ser uma intuição de sentido interior.[8]

Mas, o sentido de uma intuição formal e a centralidade do sentido interior estabeleceram-se na segunda edição da *Kritik der reinen Vernunft*. São os elementos decisivos para a redefinição dramática do papel da imaginação. Esta é não mais uma terceira faculdade sob o entendimento e a sensibilidade. Ao falar da função da síntese figurativa: "As the regulated function of figurative synthesis, an as ancillary to the understanding, imagination works progressively more openly as the concrete determination of sensibility according to the categories. However, formal intuitions arise only where pure space and time are constructed *a priori* as objects, and this is possible only in the category of quantity. Thus, the extension of the understanding of schematism as production of "formal intuitions" to the scope of other categories is more problematic than it appears, as we shall see".[9] Kant teve muita dificuldade em

6 Cf. A. FERRARIN, "Construction and Mathematical Schematism Kant on the Exhibition of a Concept in Intuition", in: *Kant-Studien*, 86 (1995), 135–136.

7 Cf. *Ibidem*, 136–137.

8 Cf. Ch. PARSONS, "Kant's Philosophy of Arithmetic", in: C. J. POSY, *Kant's Philosophy of Mathematics*, modern essays, Dordrecht, Kluver Academic Publishers, 1992, 46–47.

9 Cf. A. FERRARIN, "Construction and Mathematical Schematism Kant on the Exhibition of a Concept in Intuition", in: *Kant-Studien*, 86 (1995), 141.

interpretar a fundamentação da Aritmética, visto que esta está condicionada pela forma de interpretar a intuição pura *a priori* da sensibilidade externa e como esta se traduz na forma externa. Claro está que o conceito de *a priori* puro tem em Kant maior amplitude do que o conceito de "intuição pura". Ao não admitir a intuição intelectual pura e reduzir toda a intuição ao plano da sensibilidade será evidente que Kant só poderá falar de "intuição pura" no plano sensível (espaço) externo, a partir das intuições sensíveis empíricas ou das impressões, como se realiza a partir do número concreto. O *a priori* puro, definido como o conhecimento que é totalmente independente de toda a experiência, é aplicável também ao plano intelectual, aos conceitos puros do conhecimento ou "categorias". Por isso, ao confrontar estas noções com a ideia da abstracção qualitativa dos escolásticos, falaremos do *a priori* puro em lugar das intuições puras.

Para Kant, as formas inatas e prévias (*a priori*) de todo o conhecimento autêntico são configuradoras da multiplicidade amorfa das intuições empíricas sendo assim garantes do conhecimento científico, universal e necessário, tal como se processa na Matemática e nomeadamente na Aritmética.

Os juízos sintéticos *a priori*, que fundamentam em definitivo a ciência matemática, segundo Kant, são, antes de mais, juízos *a priori*, necessários e universais, e somente são sintéticos enquanto devem fundamentar também o carácter progressivo do conhecimento físico e do matemático. Em ambos os casos, tratam-se de "formas", isto é, de algo configurante, actuante e determinante dos materiais do conhecimento.

Para se obter a noção de número segundo Kant, necessário será perceber que tais formas são impostas exclusivamente a partir das estruturas transcendentais do sujeito como criação da hipótese em que o objecto gira em torno do sujeito.[10]

Os fundamentos da Aritmética, referem que a experiência formada inclui para o mesmo Kant a forma imposta pelo sujeito e é o que fala no plano da sensibilidade, na qual a intuição pura (espaço) configura ou "con-forma" os dados das impressões sensíveis e, assim, permitir a noção do "número" e determinar os seus fundamentos gnoseológicos.[11]

Porém, o esquematismo dos conceitos na Aritmética, implicando a concepção de grandeza métrica é diferente da geometria, como chama à atenção A. Ferrarin: "Without the activity unifying the manifold into formal intuitions performed via schematized concepts I cannot know an object or generate a mathematical concept. It emerges in the Analytic with all desirable clarity that concepts of magnitude become actual through, the understanding's synthetic activity of construction and exhibition in an intuition, which, of course, by itself would be blind".[12]

Segundo Kant, a construção geométrica procede do conhecimento prévio em ordem a produzir uma visão final das propriedades da figura. O mesmo não se passará com o "número" quer para a Geometria, quer para a Aritmética. O esquematismo será

[10] Cf. L. VICENTE BURGOS, "Intuición pura o abstracción formal (de Kant a Tomas de Aquino)", in: *Pensamiento*, 58 (2002), 88–89.

[11] Cf. J. C. G. CALADO, *Compêndio de Aritmética Racional*, Lisboa, Livraria Popular, 1962, 1–10.

[12] Cf. R. D. BORGES DE MENESES, "Teoria do Juízo segundo Kant", in: *Humanística e Teologia*, 23 (2002), 225.

a chave que determinará os juízos sintéticos *a priori*, mostrando, assim, o significado sensível das nossas categorias e seus usos sob a condição do espaço e do tempo.[13]

Já no século XX, B. Russell fez uma crítica à reflexão sobre o número segundo o pensamento kantiano. Segundo o pensador de Cambridge, o número é um conjunto de conjuntos semelhantes. Daqui que esta noção supõe a abstracção do número concreto. Desta sorte, o número de um par, segundo B. Russell, será a classe de todos os pares. E de acordo com a nossa definição, a classe de todos os pares será o número 2. Esta definição, diferente do esquematismo de Kant, proporciona algo de determinado e indubitável.[14]

O que é o número? A resposta foi apresentada, em 1884, por Frege nos *Grundlagen der Aritmetik*.[15]

Mas muitos filósofos, quando pretendem definir o número, procuram e chegam antes à "pluralidade", o que é algo de diferente na Aritmética e na sua filosofia, como o fez Kant na *Kritik der reinen Vernunft*. Com efeito, B. Russell diz que uma pluralidade não é um exemplo de número, mas antes refere-se a um número particular. Um número particular não é idêntico a um conjunto de elementos que tenha esse número. Assim, um número é algo que caracteriza determinados conjuntos àqueles que possuem esse número.[16]

Apesar de tudo, a Aritmética possui um valor gnoseológico que está baseado na intuição pura externa do espaço concreto e numerável. Assim, o revela Kant nestes termos: "The only intuition that is gives *a priori* is that of the mere form of appearances, space and time. A concept of space and time, as quanta, can be exhibited *a priori* in intuition, that is, constructed, either in respect of the quality (figure) of the quanta, or through number in their quantity only (the mere synthesis of the homogeneous manifold). But the matter of appearances, by which things are given us in space and time, can only be represented in perception, and therefore *a posteriori*. The only concept which represents *a priori* this empirical content of appearances is the concept of a thing in general, and the *a priori* synthetic knowledge of this thing in general can give us nothing more than the mere rule of the synthesis of that which perception may field an *a priori* intuition of the real object, since this must necessarily be empirical".[17]

Aqui temos a base pela qual Kant elabora a síntese numérica. Tal como para a Geometria, assim Kant procura a correlação do fundamento da Aritmética através das intuições, muito embora quer Frege quer Russell critiquem esta posição do idealismo transcendental.[18]

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13 Cf. I. KANT, "Kritik der reinen Vernunft", in: *Kant Gesammelte Schriften*, Berlin, Prussian Academy of Sciences, 1956, IX, B, 15–16.

14 Cf. G. MARTIN, *Metaphysics and Theory of Science*, Manchester, University Press, 1933, ch. I,

15 Cf. SCHULTZ, *Prüfung*, I, Berlin, W. de Gruyter, 1956, 221.

16 Cf. I. KANT, KrV, A, 163–4; B, 204.

17 Cf. A. ROS, "Kants Begriff der synthetischen Urtaeilkraft *a priori*", in: *Kant-Studien*, 82 (1991), 155.

18 Cf. B. RUSSELL, *Introduccíon a la Filosofia Matematica*, tradução do inglês, Buenos Aires, Editorial Losada, 1945, 75–76.

A matemática, segundo Kant, expressa-se como o exemplo mais esplendoroso das sucessivas extensões da razão pura sem a ajuda da experiência. A *reine Vernunft* espera tornar-se como uma capacidade que estende os seus domínios seguramente ao seu desenvolvimento matemático, onde o mesmo método tem sido de grande utilidade em Matemática.

Tal como na teoria do número, o conceito de quantidade, que segue do ser construído pela *Verstand* e pela *Vernunft* em Kant, mostra-se *a priori* na intuição, muito embora as qualidades não poderão ser apresentadas em qualquer intuição que não seja "empírica".[19]

Em Kant, a geometria é uma ciência que determina as propriedades do espaço, sinteticamente dado, e em sentido *a priori*. Mas, a intuição geométrica terá de ser *a priori*, ou seja, será fundamentada, em nós *a priori*, para qualquer percepção de um objecto e surge como pura e não como empírica. Para as proposições geométricas, a geometria surge como forma apodítica da "razão teórica", estando ligadas com a consciência das suas necessidades, por exemplo, de que o espaço se apresenta com três dimensões.[20]

Kant argumentou que o conhecimento matemático é sintético *a priori*. Logo baseia-se na *Vernunft*, não nos factos empíricos, mas não partindo da lei da contradição. O ponto de vista padrão da epistemologia considera que a matemática parece analítica e que o aspecto analítico se identificaria com o *a priori* e que o sintético com o *a posteriori*.

Assim, a Aritmética enquadra-se no âmbito analítico, trazendo consigo o elemento *a priori*.[21]

O construtivismo matemático encontra-se no pensamento de Kant e poderá resumir-se na seguinte expressão: "Kant developed an elaborate system of philosophy based on a number of universal mind-given categories of thought, including space and time. He regarded the knowledge of geometry and number as arising from the unfolding of our intuition within these two categories. This gives rise to what he termed the synthetic *a priori* truths of Euclidean geometry and number theory. After Kant's death, the advent of non-Euclidean geometries, led many of his followers to abandon the notion that Euclidean geometry consists of synthetic *a priori* truths, derived from the pure intuition of space".[22]

Segundo a Aritmética, a verdade do número é sintética *a priori*, no pensamento kantiano, e tem a sua forma originária na intuição básica do espaço contínuo e extenso.

Pelo facto de Kant oferecer uma segunda definição de analiticidade os juízos analíticos são explicativos ou tautologias, não adicionando qualquer elemento ao

19 Cf. Ch. PARSONS, "Kant's Philosophy of Arithmetic", in: C. J. POSY (ed.), *Kant's Philosophy of Mathematics*, *modern essays*, Dordrecht, Kluver Academic Publishers, 1992, 53.

20 Cf. R. E. AGUILA, "The Relationship between Pure and Empirical Intuition in Kant", in: *Kant-Studien*, 68 (1977), 278–279.

21 Cf. A. FERRARIN, "Construction and Mathematical Schematism Kant on the Exhibition of a Concept in Intuition", in: *Kant-Studien*, 86 (1995), 145.

22 Cf. *Ibidem*, 149.

conhecimento. Daqui poderemos proceder a uma fundamentação adequada para a Aritmética segundo o pensamento kantiano.

O problema de Arquimedes conduz, em qualquer acontecimento, à equação de Pell, que tem a seguinte forma:

$$x^2 - Dy^2 = 1$$

em que $D \in N$ e a solução para o problema de Arquimedes é da ordem de 10^{103275}. O coevo de Kant, Lessing encontra um texto, em grego, que apresenta o problema que Arquimedes envia aos matemáticos de Alexandria e P. de Fermat (1601–1665) já tinha colocado e tentado uma solução. Aqui temos uma equação fundamental que serve para ilustrar o sentido sintético das proposições da "teoria do número".[23]

Toda a Aritmética é uma construção dedutiva do "número" entre funções e propriedades que poderá, quanto ao seu valor gnoseológico, ser apresentada e lida segundo variadas perspectivas, desde o logicismo e formalismo até ao intuicionismo.

Contudo, devido às suas características, poderemos dizer que a Aritmética obedece ao "construtivismo formal", desde o seu método até aos seus resultados.

2. LIMITES DA MATEMÁTICA

Sempre que se fala da filosofia da aritmética, em Kant, existe uma dificuldade perante as proposições aritméticas *a priori*. E não será menos fácil ver porque é que Kant a apresenta como "sintética", sendo baseada, no mesmo aspecto, nas formas da intuição, em particular na forma da intuição interna, como é o tempo e limitada nas suas aplicações às aparências.[24]

Com efeito, isto será mais claro porque Kant refere as proposições aritméticas como "sintéticas" se nós observarmos que o conceito de sentença analítica, em Kant, possui uma limitada extensão além do conceito correspondente na mais recente filosofia, isto é, em Frege e no positivismo lógico.

Quando Kant fala do conceito de predicado de um juízo analítico, como contido no do sujeito, a situação é análoga àquela em que o conceito do sujeito se define pela conjunção do conceito de predicado e naturalmente com outros.

Isto será um caso paradigmático onde a conexão do sujeito com o predicado será a identidade.

Um dos limites fundamentais da Aritmética encontra-se dado nesta questão sobre os "juízos analíticos". Nestes, o predicado enuncia explicitamente o que já está contido no sujeito. Uma análise ao sujeito basta para chegar ao predicado. Por isso, estes juízos não nos levam a um novo conhecimento, apenas explicitam o conhecimento anterior. O sentido analítico do juízo, para o pensador de Koenigsberg (1724–1804), não possui valor científico.[25]

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23 Cf. B. RUSSELL, *Introduccion a la Filosofia Matematica*, tradução do inglês, Buenos Aires, Editorial Losada, 1945, 35–36.

24 Cf. I. M. COPI, *Simbolic Logic*, fourth edition, New York, Macmillan Publishing, 1973, 142, 149, 188, 282.

25 Cf. B. RUSSELL, *The Principles of Mathematics*, London, George Allen, 1956, 457–459.

Uma versão idealizada de um juízo analítico seria da forma seguinte: Todos AB são A', ou todos os C são A', logo: C define-se como A e B. Isto é idealizado, dado que segundo Kant fora dos conceitos da Matemática, não existem em geral definições no sentido adequado.

Não parece haver razão particular para 7 + 5 = 12 ser analítico, isso terá de seguir do conceito da soma 7 + 5 pela lei da contradição. Isto será incluído no elemento tradicional e limitado pela orientação de Kant. Logo, isto é uma realidade para dizer uma não razão para esclarecer esta e outra para entender a razão específica de Kant onde uma coisa seja falsa.

Kant indica que o caminho que encontramos para que 7 + 7 = 14 é dado pelo processo de cálculo, num processo que vai de 7 até 14 pela sucessiva adição da "unidade", no qual a unidade pode operar com uma instância particular de um grupo de objectos, que pode somente ser dada na "intuição". Assim, o refere Kant pelas suas próprias palavras: "We have to go outside these concepts, and call in the aid of the intuition which corresponds to one of them, our five fingers, for instance, or, as Segrer does in his Arithmetic, five points, adding to the concept of 7, unit by unit, the five given in intuition. For starting with the number 7, and for the concept of 5 calling in the aid of the fingers of my hand as intuition. I now add one by one to the number 7 the units which 1 previously took together to form the number 5, and with the aid of the figure (the hand) see the number 12 come into being".[26]

Parece não ser claro porque é que este processo não pode ser colocado na forma de um argumento puramente lógico ou ser algo diferente daquilo que pode ser.

Existiu um esforço para fazer este raciocínio, de forma correcta, dado que Kant estava na posição familiar, pelo "Nouveaux Essais" de Leibniz. Leibniz trabalhou com 2 + 2 = 4, mas o tipo de argumento é suficiente para qualquer adição, que Kant com toda probabilidade o viu como "analítica". Leibniz considerou como definição:

$$2 = 1 + 1$$
$$3 = 2 + 1$$
$$4 = 3 + 1$$

que é aproximadamente referido numa formalização moderna. Então a prova será dada pela Aritmética Racional de forma seguinte:

$$2 + 2 = 2 + 1 + 1 = 3 + 1 = 4.$$

Mas a objecção moderna padrão para este argumento é que Leibniz inseriu alguns suportes:

$$2 + 2 = 2 + (1 + 1) = (2 + 1) + 1 = 3 + 1 = 4,$$

o que assume, entretanto, um elemento de "associatividade".

[26] Cf. W. EWALD, *From Kant to Hilbert: a source book in the foundations of Mathematics*, Oxford, Clarendon Press, 1999, 140.

Nós não podemos excluir a possibilidade que isto fez conhecer em Kant, quando ele escrevia a *Kritik der reinen Vernunft*. G. Martin colocou a hipótese de Kant elaborar uma fundamentação axiomática da Aritmética semelhante à clássica axiomatização da Geometria.[27]

Kant observa que a Aritmética, gnoseologicamente pensada, é sintética, ficando, segundo a perspectiva lógica, com as proposições:

$$7 + 5 = 12$$
$$a + b = b + c \rightarrow a = c$$

que não podem ser provadas pela lógica simbólica a partir da definição tal como tinha afirmado Leibniz.

Mas, uma fundamentação axiomática da espécie da que Martin procurava, fora apresentada por Schultz, aluno de Kant, no *Prüfung*. Sem mencionar directamente Leibniz, Schultz chama à atenção para a espécie de prova de uma identidade aritmética, como Leibniz apresentara e fica-se na consideração da "associatividade".

Mas, Schultz apresentou dois axiomas: o da comutatividade e o da associatividade da adição. Kant nem afirmou nem negou a independência das leis correspondentes da multiplicação e da lei distributiva.

Assim, Schultz apresentou os seguintes axiomas:

– Para quantidades homogéneas dadas, surge o conceito de um *quantum* pela sua sucessiva conexão, isto é, para transformar esta dentro de um todo;

– Para aumentar e para diminuir qualquer quantidade dada, pelo menos ou pelo mais, será o infinito.[28]

O segundo postulado segundo Schultz, é não especificamente um pensamento da Aritmética, mas é oriundo da Análise Matemática por meio da propriedade da continuidade. Em qualquer caso, o primeiro postulado é a base para a suposição de que as funções da adição são definidas, isto é, dando os números m, n, que actualmente existe como: m + n.

Se seguirmos a concepção de Kant, então ficará a questão sobre o papel da "intuição" no âmbito destes axiomas e postulados. Assim, ao transferir a concepção para Kant, nós somos imediatamente induzidos pela dificuldade que explicitamente diz que a Aritmética não tem axiomas. Logo, poderemos atender ao comentário de Kant:

"As regards magnitudes (*quantitas*) that is, as regards the answer to be given to the question. What is the magnitude of a thing? There are no axioms in the term, although there are a number of propositions which are synthetic and immediately certain (*indemonstrabilia*)".[29]

27 Cf. A. GEORGE; D. J. VELLEMAN, *Philosophies of Mathematics*, Oxford, Blackwell Publishers, 2002, 15.

28 Cf. W. EWALD, *From Kant to Hilbert: a source book in the foundations of Mathematics*, Oxford, Clarendon Press, 1999, 140.

29 Cf. *Ibidem*, 138–139.

Kant considera duas possibilidades: as regras da igualdade, que ele assevera como sendo analíticas (um axioma é um juízo sintético) e as identidades elementares da Aritmética, tais como: 7 + 7 = 14 ou qualquer outra (a + b = c), que são como ele entendeu para serem referidas para o fim da nossa questão, que são sintéticas e indemonstráveis, mas que ele decidiu chamar de axiomas, porque elas são "singulares".

O grande limite gnoseológico kantiano sobre a Aritmética encontra-se na impossibilidade de elaborar uma axiomática, ficando-se criticamente a teoria do número como uma analítica e não se inscrevendo no *Begriff der synthetischen Urteile a priori*.[30]

Kant terá pensado que o primeiro grau da quantidade abstracta (matemática), dado que se refere como "quantidade numérica", além de não ser axiomatizável, aparece incluído nos juízos analíticos *a priori*, dado que o número existe devido à informação da *intuição externa* (espaço) nas categorias da quantidade pela actividade da "*Verstand*".

O limite fundamental estaria na impossibilidade da Aritmética ser incluída na teoria dos juízos sintéticos *a priori*, dado que só trabalham com as operações directas e indirectas através das suas propriedades.

A aritmética teve de esperar para poder ser axiomatizável, tal como a elaborou Peano,[31] ultrapassando os limites gnoseológicos de Kant.

Além destes limites à Aritmética surgem os limites ontológicos e, também, os de ordem lógica. Os fundamentos lógico-simbólicos da Aritmética foram sistematizados por B Russell e A. Whitehead nos *Principia Mathematica*.

Kant elaborou uma fundamentação gnoseológica, mas não apresenta qualquer fundamentação ontológica para a Aritmética, bem como surge uma ausência de fundamentação lógica.

Segundo Kant, parece dizer-se que a Aritmética tem "postulados", bem como certos juízos práticos.

Kant sentiu que não teria uma outra alternativa senão optar por tais proposições, como as leis da associativa e da comutativa da adição.[32]

CONCLUSÃO

A concepção kantiana de Aritmética é, em certa medida, intuicionística no sentido da matemática moderna.

A intuição matemática na Aritmética será muito mais uma "intuição empírica", do que uma intuição teórica, que justifique a própria verdade, uma vez que a intuição evidenciaria uma espécie de entendimento infalível. Segundo a concepção kantiana, o conceito de aritmética pura ultrapassa o conhecimento empírico e fixa-se numa forma de conhecimento *a priori*.

30 Cf. P. ERNEST, *Social Construction as a Philosophy of Mathematics*, New York, State University, 1998, 2–3.

31 Cf. *Ibidem*, 20–21.

32 Cf. H. KOCH, *Number Theory, algebraic numbers and functions*, Providence, American Mathematical Society, 2000, 3–4.

A matemática, partindo da Aritmética, é necessária à experiência objectiva.

Daqui se aufere que o Eu puro seja um "eu matemático" e pelo menos acompanha todas as representações da sensibilidade externa (espaço).

Concluímos, também, segundo Kant, que o "número" é uma forma pura *a priori* fundado na intuição da sensibilidade externa. Surge, pois, uma "forma pura", que sendo necessária não está sujeita à cadeia dos fenómenos empíricos.

O valor da Aritmética, em Kant, está no facto de o "número" ser de carácter sintético. As proposições aritméticas são intuições puras *a priori* da *Verstand* dadas no esquematismo da categoria da quantidade.

A Aritmética tem limites, que são ultrapassados pela Álgebra e pela Análise Matemática, criadas por Leibniz e por Newton que Kant estudou, sob a orientação do Prof. Knuszen, na Universidade de Koenigsberg.

Finalmente, referimos que, em Kant, as regras da Aritmética se apoiam já não no dado empírico, mas antes no jogo que é necessário e que vai das intuições às abstracções.

A Aritmética é o início da ciência da "quantidade abstracta" e, ainda, foi por ela que Kant começou a reflexão do espaço numérico como uma forma de se traduzir a categoria da quantidade.