

ACTOR-NETWORK THEORY AND BYZANTINE PHILOSOPHY

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The text offers a detailed reflection on the results of almost 20 years of work focusing on the paradigm of Actor-Network-Theory (ANT), including the application of concepts and methods inherent in Byzantine philosophy. The motivation for such reflection is based on the opportunity to expand and systematize latest research insights on the same topic by Ivan Chalakov and Stoyan Tanev. The starting point is the attempt to unfold the sociological explanations of phenomena such as endurance, resistance and innovation, which are difficult to explain through the paradigms of classical sociology. The suggested analysis adopts concepts such as essence-power-energy, *hexis*, *perichōrēsis*, *hypostasis*, *prosōpon* and body, to refine some of the positions characteristic of the ANT paradigm and propose new ones that allow to problematize the principle of symmetry, the understating of initiative, essence and the figure of the actor. The developed point of view is demonstrated by analyzing some of the paradoxes inherent in the understanding of the human hypostasis and the questions emerging from the theoretical prescriptions of transhumanism.

Introduction

Actor-Network-Theory (ANT) was articulated in the 1970s by Bruno Latour, Michel Callon, and their followers. It abandoned the 'Cartesian' subject-object scheme and challenged the existing sociological concepts of activity. Its emphasis is on the network interactivity between human and non-human beings. At the very beginning of the twenty-first century, Ivan Tchalakov and I initiated a research project focusing on exploring the ANT paradigm with a focus on social phenomena that were, in fact, unexplained by sociology at that time, such as endurance, persistence, resistance, and innovation. The key elements of our theoretical apparatus were based on the teachings and concepts of Byzantine philosophers. These concepts are: essence-power-energy, *hexis*, *perichōrēsis*, *hypostasis*, *prosōpon*, body. The results of our research problematized (by questioning the existing typology of social actions) the ANT concept of 'translation', which is used by ANT scholars as a replacement of the concept of 'action', and relativized the idea of 'symmetry', which is absolutized by the representatives of ANT. The application of the Byzantine conceptual apparatus opened new horizons, helped articulating new problems and challenges, opened new perspectives, as well as made it possible to refine and deepen the focus of the research project.

It has been over 15 years since my colleague Ivan Tchalakov introduced me to the ANT paradigm. He started with the intuition that certain concepts of Aristotle correspond to the core themes of this paradigm and could deepen them. His proposal came at a time of intense ‘Byzantine’ reading of Aristotle on my part. ANT has attracted me, most notably by its distancing from the ratio-centric and anthropocentric scheme of the subject-object divide as well as from the reification of both relationships and activities. What was essential for me was the opportunity to view the world as an interactive network that is dynamically established by human and non-human beings.

We presented the results of our joint work in three texts.¹ In 2013, together with Martin Roussel, we organized the conference ‘Le Sujet de l’Acteur conference. An Anthropological Outlook on Actor-Network Theory’ (June 5–6, Cologne, Germany) and published a book with the same title.² After the conference I decided that my article in the book³ summarized all my searching and discoveries dedicated to the ANT paradigm. The provocation for a new recapitulation of my ideas came from two publications. The first one is the article by Stoyan Tanev, published in the same conference book.⁴ The second one is the last chapter in Ivan Tchalakov’s remarkable book (2015), entitled ‘Instead of Conclusion: Georgi Kapriev on the Interpretation of Aristotle’s Theory of Action in Byzantine Philosophy as an Alternative to the Notion of “Translation” in Actor-Network Theory’.⁵ The specific occasion to write the present text was the kind invitation to contribute to this issue of *Analogia*, which came from Stoyan Tanev. I will therefore follow the order of the conceptual nuclei such as fixed by Tanev and Tchalakov. There will inevitably be some repetition of topics and ideas from previous publications to which new ideas will be added. And one last caveat: even though Tchalakov has generously presented some of the positions in his book as entirely mine, their articulation would not have been possible without his help in introducing me to ANT and our joint work on unfolding these positions in ANT’s specific context. Therefore, I will speak in the first person plural: not ‘I’ but ‘we’.

¹ Ivan Tchalakov, Georgi Kapriev, ‘The Limits of Causal Action: Actor-Network Theory Notion of Translation and Aristotle’s Notion of Action’, *Yearbook of the Institute for Advanced Studies on Science, Technology and Society*, eds. Arno Bammé, Günter Getzinger, Bernhard Wieser, 47 (2005) (München – Wien: Profil, 2005), 389–433; Иван Чалъков, Георги Каприев, ‘Социология на промяната и претърпяването’, *Минало и съвремие: 60 години след Иван Хаджийски*, съст. Велина Топалова, Веска Кожухарова (Троян: ВГС, 2007), 63–83; Georgi Kapriev, Ivan Tchalakov, ‘Actor-Network Theory and Byzantine Interpretation of Aristotle’s Theory of Action: Three Points of Possible Dialogue’, *Yearbook of the Institute for Advanced Studies on Science, Technology and Society*, eds. Arno Bammé, Günter Getzinger, Bernhard Wieser, 57 (2009), (München – Wien: Profil, 2009), 207–238.

² *Le sujet de l’acteur. An Anthropological Outlook on Actor-Network Theory*, eds. Georgi Kapriev, Martin Roussel, Ivan Tchalakov (Paderborn: Wilhelm Fink Verlag, 2014).

³ Georgi Kapriev, ‘The Byzantine Trace’, *Le sujet de l’acteur* (cf. n. 2), 133–143.

⁴ Stoyan Tanev, ‘Actor-Network vs Activity Theory. Dealing With the Changing Nature of the Asymmetry in Human-Technology Inter-Actions’, *Le sujet de l’acteur* (cf. n. 2), 65–85.

⁵ Иван Чалъков, *За предприемачеството и устояването в науката: социология на лабораторния живот* (София: Изток-Запад, 2015), 181–194.

But first, I think, I have to explain what I mean by ‘Byzantine philosophy’.

1. What do I mean by “Byzantine Philosophy”?

I have never been willing to impart an essential character to philosophy in general, neither to my interpretation of philosophy in Byzantium, nor to attribute to it some kind of monolithic form, immutability, or unequivocal continuity. On the contrary, I actually agree with the claim about the existence of ‘the many faces of Byzantine philosophy’.⁶ In the heterogeneous network of these multiple faces my interest has mostly focused on speculative and discursive philosophy; my subject is the rational and rationalist discourse in the Byzantine tradition: philosophy as investigation of the logos of being qua being.

From this perspective, when I speak of ‘philosophy in Byzantium’, I usually mean the conglomerate of all philosophical projects in Byzantine culture. In contrast, by ‘Byzantine philosophy’ I mean those philosophical tendencies that set themselves apart from the Western traditions, mainly by making a particular emphasis on the dynamics of being and by interpreting the structures of being as networks of multiple dynamic layers. These tendencies do not bring to the fore the essence, substance, or whatever is in itself, but rather emphasize its actuality, its actions, and its motions, i.e. its existence through which an essence comes to be known. It is this peculiar nuance, added to the mainstream set of metaphysical problems, that I consider a unique contribution of Byzantium’s philosophical culture.⁷

It is in this context that I should briefly discuss the question about the relation between theology and philosophy. Photius of Constantinople is probably the first to explicitly distinguish between theology as a mystical experience and the discursive theology on which that experience is based. Photius introduces expressions such as *καθ’ ἡμᾶς θεολογία* or *ἡ ἡμῶν θεολογία*,⁸ used until then solely in the context of philosophy and not applicable to theology, understood as a theological experience and self-expression of God. That is the way Photius calls the speculative theological teachings, referring to *διδασκαλία* and *μάθεις* that are inspired by the Divine words and thus based on the contemplation of the supernatural.⁹ He describes speculative philosophy as the highest possible theoretical knowledge as well as part of the first philosophy in which it takes on the role of the most sublime metaphysical reflection. These definitions of Photius remain valid for all representatives of the Byzantine

⁶ Katerina Ierodiakonou, ‘Byzantine Philosophy Revisited (a decade after)’, *The Many Faces of Byzantine Philosophy*, eds. Börje Bydén, Katerina Ierodiakonou (Athens: The Norwegian Institute at Athens, 2012), 1–21.

⁷ Cf. Georgi Kapriev, ‘Philosophy in Byzantium and Byzantine Philosophy’, *The Ways of Byzantine Philosophy*, ed. Mikonja Knežević (Alhambra, California: Sebastian Press, 2015), 1–8; Georgi Kapriev, ‘Was hat die Philosophie mit der Theologie zu tun? Der Fall Byzanz’, *Byzantine Theology and its Philosophical Background*, eds. Antonio Rigo, Pavel Ermilov, Michele Trizio (Turnhout: Brepols, 2011), 4–16.

⁸ Photios, ‘Amphilochiae’, 182 (PG 896C:897D).

⁹ Ibid., 190, 4 (920C).

tradition after him, independent of their anthropocentric and theocentric lines of thought.

2. Key points in the reception of our position (Tchalakov & Kapriev, 2004)

The first text that Tchalakov and I published in October 2004 begins with the sentence: ‘In this paper, we want to discuss the sociological concept of activity seen in terms of change, innovation, and the closely related aspect of “suffering”—the endurance and overcoming of resistance, the external and internal pressures that it is usually accompanied by’. Our main motivation was to re-examine the highly neglected phenomena of resistance, suffering, and endurance by enhancing the ANT approach with the tools and resources of Byzantine philosophy.

The unfolding of our position has helped to emphasize two points that were perceived as ‘dissident’ in view of ANT’s basic presuppositions. On the one hand, this was our proposal for an alternative of the concept of ‘translation’ in ANT. On the other hand, this is the reintroduction, on a new, non-Cartesian basis, of the asymmetry between actors (with the main example of an existing asymmetry in the interplay between human and non-human actors), which was acknowledged as a distinctive scholarly contribution.¹⁰

Seeking a way out of the aporias inherited from the sociological conceptions of ‘social action’ at that time, the ANT promoters broaden the concept to the maximum and adopt a pluralistic approach to it, abandoning any hierarchical or genealogical procedures in its definition and explanation. At the same time, they pay particular attention to the activity of the so-called non-human agents (things other living beings or technical objects). This is how concepts such as ‘regimes of action’ or ‘heterogeneous networks’ of human and non-human actors emerge, going beyond the traditional distinction between the natural and the social. Hence the emergence of the term ‘translation’, whose ‘extension’ enables us to refer to anything endowed with the capacity to act. The term refers to the actions of both human and non-human actors in heterogeneous networks and allows ANT representatives to develop a symmetrical approach in their study. Any translation can modify, transform, challenge, or support previous translations.¹¹ Society and nature fluctuate similarly to the networks that connect them.

Looking at specific analyses performed from an ANT perspective, however, we can see that they do not challenge the nature of social action as an entirely object-oriented action. There can be no action without an object, so that every action has its ‘in order to’, i.e., putting a concrete objective goal, whence it follows that every action is characterized by fixed goal-mediation. After the twelfth century,

¹⁰ Tanev, ‘Actor-Network vs Activity Theory’ (cf. n. 4), 82.

¹¹ Cf. Michel Callon, ‘Four Models for the Dynamics of Science’, *Handbook of science and technology studies*, eds. Sheila Jasanoff et alii (London: Sage, 1996), 50.

Western European philosophy and social science inherited an interpretation of Book IX of Aristotle's *Metaphysics*, according to which action is ultimately reduced to the type of causal actions (which Aristotle calls 'motions having a limit'¹²). This specific reduction makes it so easy to replace traditional sociological concepts of activity with the concept of translation in ANT—it captures the commonalities between human and non-human actors as capable of causing movements, influences and impacts in heterogeneous networks. Thus, sociological descriptions continue to ignore an entire class of activities, including different forms of bodily behavior, including those empirically identifiable but inexplicable 'deviations' from the norms, as well as any exercised opportunities to ignore such norms, which are usually considered within the limits of sociological error. Our perspective opens the horizon to considering the 'heterogeneous coupling' between human and non-human actors as a kind of relationship that goes beyond the concept of translation. It enables the development of methods for observing and recording the 'dual' nature of activity—finding techniques that capture the 'hypostaticity' of the actors under study and then separate the 'noise' of causal actions from the manifestations of specific existential actions, which are parallel to the causal ones and are usually seen as their 'insignificant' aspect.¹³

A central methodological moment for Latour is the annihilation of any *a priori* difference between social and non-social factors, actors, or agents. This is one of the key aspects of the ANT symmetry principle. Objects should be included as equally present in and relevant to the course of action; they have equal rights with respect to other subjects involved in the course of action. In this sense symmetry was the 'most important philosophical discovery' in ANT¹⁴.

The concept of 'asymmetry' that was introduced by Tchalakov and me was understood at first quite incorrectly. It does not at all assume the pre-existence of a privileged and ontologized subject of action. The reason for introducing our asymmetry concept is the fact that in every practical situation there is someone or something that is the first in initiating a change and, by being first, this someone or something is in a stronger position to predefine the specific situational dynamics of the particular change. We were referring to the asymmetry emerging from the possibility for different actor-networks to take specific initiatives in different situations or contexts and in different moments of time. If you consider the social connections in the specific case of a wall, a nail, a hammer and someone using the hammer to put the nail in the wall, you can clearly imagine the changes of initiative in this micro-social situation.

¹² Aristotle, *Metaphysics*, IX, 6, 1048b18–30.

¹³ Чалъков, *За предприемачеството и устояването в науката* (cf. n. 5), 183–184 and 194.

¹⁴ Bruno Latour, 'One Turn After the Social Turn', *The Social Dimensions of Science*, ed. Ernan McMullin (Notre Dame, Ind.: Notre Dame Press, 1992), 272–294; Tanev, 'Actor-Network vs Activity Theory' (cf. n. 4), 65–66 and 73.

Bruno Latour and most of the ANT authorities do not like the term ‘initiative’. They associate it with the actor as ‘a source of initiative or a starting point, the extremity of a vector oriented toward some other end’.¹⁵ At the same time Latour insists that ‘ANT is not [...] establishment of some absurd “symmetry between humans and non-humans”’. He explains: ‘To be symmetric, for us, simply means not to impose *a priori* some spurious asymmetry among human intentional action and a material world of causal relations’.¹⁶ I should point again out that we (Tchalakov and I) do not believe in such type of apriority either. Another one of Latour’s questions is: ‘How long can a social connection be followed without objects taking the relay?’¹⁷ Well, the asymmetry we are talking about consists exactly of the ‘taking the relay’ in every possible moment of a specific ‘social connection’, independent of who is the actor or the actor-network taking the relay. The important point here is that the two aspects are equally applicable to both human and non-human agents. We think of all these agents not necessarily as persons but as hypostases.

The other dimension of our concept of asymmetry arises from the hypostatic factor as an aspect in distinguishing between different actors, without ascribing an unconditional priority to the human actor as a Cartesian subject. The axis of rotation here is that every being—both human and non-human—possesses both specific natural properties and unique hypostatic properties. This asymmetric aspect is based on the hypostatic and natural specificity of the manifestation of the activities, which also predefines the way a specific change will be actualized. At this point the subject of the asymmetry should be discussed in addition to the situational initiative to emphasize the meaning of ‘asymmetry’, which results from the specificity of the essence and the corresponding energy of the respective actor.

The idea was borrowed from the ‘Christological asymmetry’ articulated by Georges Florovsky, whose starting point was the initial non-hypostatic status of the human nature in Christ.¹⁸ In Florovsky’s case the notion of asymmetry emphasizes the fact that the process of *περιχώρησις* is initiated by the Divinity in a way that the Divine action enables the opportunity for human nature to acquire the real possibility to inter-penetrate or co-inhere with the Divine nature. It does not mean and does not lead to a radical dominance of the Divine nature. It means the existence of a specific kind of dialogical reciprocity (a term introduced by N. Loudovikos) within the context of the co-inherence of the Divine and human natures. Both the problematization of the term ‘translation’ and the concept of asymmetry arise as a consequence of the concretization of the method, which is achieved not least by

¹⁵ Bruno Latour, *Reassembling the Social: an Introduction to the Actor-Network-Theory* (Oxford, UK – New York: Oxford University Press, 2005), 216.

¹⁶ Ibid., 76.

¹⁷ Ibid., 78.

¹⁸ Георгий Флоровский, *Восточные отцы V–VIII веков* (Париж: YMKA Press, 1933) (repr. Москва, 1992), 26.

virtue of the Byzantine conceptual apparatus when applied in the context of the paradigm of ANT.

3. The two-fold nature of action

The first step in the introduction of this conceptual apparatus is the note of the semantic stem of two words routinely accepted as synonyms: the Latin *res* and the Greek *πρᾶγμα*. They are both translated as ‘something’, ‘object’, ‘thing’, but are not actually unequivocally identical. While *res* suggests mainly objective or substantial detachment, *πρᾶγμα* means above all ‘deed’, ‘something actual’, ‘active’, ‘exercising influence’, ‘achieved’, lat. *facinus*. *Πρᾶγμα* is the available concretum of the abstractum *πρᾶξις* (practice) referring to a given subject (when there is a subject). While *res* (abstractum: *realitas*, reality) underlies a vision of the world based on static self-determination, *πρᾶγμα* describes a world founded on dynamic interactions. While the Latin tradition in principle perceives reality through the subjectively stable *res*, the starting point for the Byzantine tradition is activity or, to use the Greek word – *ἐνέργεια*. The Byzantines perceive reality as actuality. The course of action of any agency, be it human or non-human, could in principle be described by means of two major types of actions: ‘causal actions’ and ‘existential actions.’ Paradigmatically, this difference is founded in Aristotle’s *Metaphysics* and its Hellenic and Byzantine interpretations.

In book IX of *Metaphysics* Aristotle distinguishes between the ways of speaking about the essence (*οὐσία*) of every being through the categories and through the concepts of force (*δύναμις*) and action (*ἐνέργεια*).¹⁹ Both Latin and contemporary translations tend to express the dyad *δύναμις-ἐνέργεια* as *potentia-actus* and, very often, as *possibilitas-actualitas*. Such translations tend to associate the meaning of the signified with modal terms, which obscures the original Aristotelian intentions. Aristotle defines the force-*δύναμις* as exercising influence on something else and of undergoing influence from something else. The capacity of every force to influence is called *ἐνέργεια* (energy/action), which is defined firstly as *κίνησις*/movement. Aristotle subsequently distinguishes between two kinds of actions: movements and energies *par excellence*.²⁰ The movements have a beginning and an end; they have a limit (*πέρας*), but they do not have an ultimate *τέλος*/purpose. They are actions initiated by a certain external cause and cease when the cause is no longer present. We can call the movement’s causal or instrumental actions.

The energies *par excellence* have a *τέλος* and are identical with the existence of the being / *τὸ ὑπάρχειν τὸ πρᾶγμα*. This is the manifestation of the essence and its force, which is bound to the ultimate purpose of the essence. That is why Aristotle

¹⁹ Aristotle, *Metaphysics* IX, 1, 1045b32–1046a2.

²⁰ Met. IX, 3, 1046b29–1047b2; IX, 8, 1049b8–10.

identifies the energy with the entelechy / ἐντελέχεια.²¹ The energy provides the definiteness of the life.²² The energy is the existential action of the essence, but the energy does not have a substantial character. This type of energy can be defined as existential. It should be noted that the essence coincides with its essential energy in just one specific aspect. They are one and the same, but the essence carries the energy. For its part, the energy is not essence; it belongs to the essence. It is its existential action. The energy is the existence of essence and its manifestation. It is not generated by some immediate ‘in order to,’ but pursues the purpose of existence as such rather than some contingent goal set up by whatever circumstances in life. This energy is the real existence of an essence.

The network of energetic activities forms the reality of being and, in this sense, it is really actual or active. Typologically speaking, the network is ‘woven’ by two types of activities: activities and practices which have a limit; activities that are boundless but have a pre-defined purpose. The theme is further developed by Aristotle in the *Nicomachean Ethics* (X, 3–4) and in the representation of the unmoved mover (*Met.* XII, 7). David Bradshaw illustrates the general differences between the two types in a helpful scheme:²³

κινήσεις (<i>movement, causal action</i>)	ἐνέργεια (<i>existential action</i>)
1. Has a termination.	1. Has no termination.
2. Is not an end but for the sake of an end.	2. Is an end or has end within it.
3. Complete when it achieves what it aims at, i.e., during whole time or at final moment.	3. Complete at any moment because it does not lack anything that, coming into being later, will complete its form.
4. Must cease before perfect tense can apply.	4. Present and perfect tense apply simultaneously.
5. Has parts that are different in kind from one another and from the whole; the ‘whence’ and the ‘whither’ give them their form.	5. Homogeneous.
6. Occurs quickly or slowly.	6. Does not occur quickly or slowly.
7. In time.	7. In ‘the now’.

In all the historically realized forms of Aristotle’s philosophical reception in the Western tradition, this semantic layer of being is missing, or at least significantly neglected. There is, however, one notable exception. In his lectures in 1931/32, through a careful reading of book IX of Aristotle’s *Metaphysics*, Martin Heidegger shows that the usual common translation of δύναμις and ἐνέργεια as ‘potentiality’ and

²¹ *Met.* IX, 6, 1048b22; IX, 8, 1050a7–10.

²² *Met.* IX, 8, 1050b1–2.

²³ David Bradshaw, *Aristotle East and West: Metaphysics and the Division of Christendom* (Cambridge: Cambridge University Press, 2004), 10.

‘actuality’ does not adequately reproduce the Aristotelian intention because the two terms are considered to belong to the modal categories. For Aristotle, the question of *δύναμις* and *ἐνέργεια* is not a question related to the categories but to being as such.²⁴ It is about the power and activity of being itself.²⁵ Power in the proper sense of the word is understood not categorically, but as the basic mode of being: being and non-being in the sense of the bearable (*δυνατόν*) and the unbearable (*ἀδύνατον*), respectively, of the powerful and the powerless. Power is the ability, the power, the quality of being able, which manifests the different types of being able.²⁶

Heidegger repeatedly emphasizes the Aristotelian distinction between *δύναμις κατὰ κίνησιν* and *δύναμις par excellence* (*δύναμις ἐπὶ πλεόν*) but does not elaborate in greater detail on the second theme. *Δύναμις κατὰ κίνησιν* is defined as ‘*Leistenkönnen*’ and *ἐνέργεια κατὰ κίνησιν* is, respectively, achievement-oriented activity. The energies are what is accessible in actuality (‘*das handgreiflich Wirkliche*’).²⁷ It is emphasized that the way of explaining the origin of the concept of power, based on the data of subjective experience, is not only inadequate but also capable of misplacing the whole question in a direction that will definitively detach it from the real problem.²⁸ *Δύναμις* is interpreted as *ἀρχή* (origin, principle), as something from which something else originates: *πρώτη δύναμις* / first force is the fundamental definition of an essence.²⁹

Ἐνεργεῖν, in turn, means being in action (not just being real or actual).³⁰ To observe powers and energies is to look at the constitution of the being of respective beings as such.³¹ They are considered to belong to the existential character of a being and contribute to the making of its constitution.³² From this horizon, Heidegger attacks ‘the seeming self-understanding of causality’.³³ In Aristotle we encounter the forces not in terms of their causal relation as causes; a force is not a ‘concept derived from causality’.³⁴ There is still no relationship between cause and effect.³⁵ Heidegger concluded the lecture by saying that Aristotle’s theory represents the philosophical knowledge of antiquity, ‘a knowledge that is still underestimated and misunderstood in today’s philosophy’.³⁶ Heidegger’s way of thinking on this subject did not gain popularity in Western scholarship.

²⁴ Martin Heidegger, ‘Aristoteles, Metaphysik Θ, 1–5, Von Wesen und Wirklichkeit der Kraft’, Martin Heidegger, *Gesamtausgabe*, Bd. 33 (Frankfurt am Main: Vittorio Klostermann, 1990), 9.

²⁵ Ibid., 50.

²⁶ Ibid., 65.

²⁷ Ibid., 78.

²⁸ Ibid., 74.

²⁹ Ibid., 78 and 90.

³⁰ Ibid., 167.

³¹ Ibid., 120.

³² Ibid., 117.

³³ Ibid., 77.

³⁴ Ibid., 79.

³⁵ Ibid., 83.

³⁶ Ibid., 219.

The Aristotelian theme continues, however, in its Greek-speaking pagan Neoplatonic reception. It distinguishes between energy that is inherent in the essence and energy that is directed outwards from the essence, accepting that the essence can be known only through its energies. It recognizes that beings can participate in each other through their energies and the participation is interpreted as synergy. It distinguishes between eternal and temporal energies (depending on the nature and status of the essences) and accepts the existence of beings possessing both eternal and temporal energies (human souls in particular).

The Byzantine tradition considers essence/*οὐσία* and nature/*φύσις* as identical and interprets them as the common form of a specific being that is represented in multiple individuals. However, the truly authentic manifestation of each essence, either finite or infinite, is in its constitutive force (*συστατική δύναμις*) and natural energy (*φυσική ενέργεια*). It is impossible, points out Maximus the Confessor, to acknowledge an essence and, at the same time, reject its constitutive energy. Every essence has its moving force in itself (it is *αὐτοκίνητος*) because it is expressed by its energy and it exists through its energy. The natural energy is the ultimate and most straightforward characteristic of the essence; a nature cannot exist without its constitutive movement.³⁷ It is its 'only and true demonstration (or: proof)' (*μόνη τε καὶ ἀληθής ἐστιν ἀπόδειξις*), because the essence (every essence, without exception) is in itself unknowable and subject to knowledge only through its power and energy.³⁸ The natural energy is the species forming motion, the most general of all properties, and without it, there is nothing, neither motion nor existence.³⁹

Energy is the existential action of an essence: it is not the essence but is essential. Gregory Palamas describes energies in a way that was clear to his contemporaries: *πράγματα ἐστί καὶ οὐκ οὐσία*.⁴⁰ If an essence was void of energy that is distinguishable from the essence itself, he insists, then it would not be real (*ἀνυπόστατος*) and would be considered only mentally. 'Man in general' (*ὁ καθόλου ἄνθρωπος*) is entirely non-hypostatic (*ἀνυπόστατος*, not real). The being of the essential energy indicates that man is hypostatic (*ἐν ὑποστάσει*). This common standpoint pertains to every kind of nature.⁴¹ Palamas refrained from qualifying the distinction of essence-energy by a logical technical vocabulary. The only two distinctions used from the time of the first Greek fathers to the time of Palamas—a *διαφορὰ τῶ πράγματι*/real distinc-

³⁷ Maximus Confessor, 'Ambigua ad Thomam', 5 (PG 91:1052B).

³⁸ Maximus elaborates on the thesis, which has been developed already by the Cappadocians, that in itself the essence of all things, including the uncreated ones, cannot be precisely or entirely known, but it is merely expressed through its properties (i.e., through its energies): Basilios Magnus, 'Homiliae IX in Hexaemeron', 1, 8 et 11 (PG 29:20C–21A; 25A–28B). Cf. Георгий Флоровский, *Восточные отцы V–VIII веков* (cf. n. 19), 70.

³⁹ Ibid., 1048A.

⁴⁰ Gregorius Palamas, 'Contra Gregoram', *Γρηγορίου Παλαμά Συγγράμματα*, том. 2, επιμ. Παναγιώτης Χρήστου (Θεσσαλονίκη: Κυρομάνος, 1966), 280, 29–30.

⁴¹ Gregorius Palamas, '150 Capita', 136–137, *Γρηγορίου Παλαμά Συγγράμματα*, том. 5, επιμ. Παναγιώτης Χρήστου (Θεσσαλονίκη: Κυρομάνος, 1992), 112, 7–113, 6.

tion and a *διαφορὰ κατ' ἐπίνοιαν*/rational distinction—could not render the difference between essence and essential energy correctly. First Georgios Scholarios in the Palamite tradition describes the energies as *τὶ το πράγματος καὶ ἐν τῷ πράγματι* (something belonging to the thing or present in the thing) and determines the distinction between essence and energy as *εἰδικὴ διαφορὰ* (i.e., as *distinctio formalis ex parte rei*) in the sense of the *distinctio*-formulas of Duns Scotus.⁴²

4. The essence / nature

This theory of action is based on the notion of 'nature' identified in the Byzantine tradition with 'essence'. The essence or nature of a thing is never considered in itself, but rather as a source of energetic manifestations and dynamism. The variety of the natural attributes of a thing can be known only through its energies or actions. However, these two notions are used in a quite different manner in comparison to the philosophical lexicon of the Latin tradition, which forms the roots of modern philosophy and sociology.⁴³

In developing his ideas, Latour refuses to accept the existence of any essence in the actors that moves from one action to another and in some sense precedes it. On the contrary, the actors and their characteristics are the result of an event that has already happened. As he points out in one of his important early works, 'everything only happens once and in one place'.⁴⁴ He later tells us that the actor is nothing more than what he modifies, transforms, changes, and creates.⁴⁵ If we remove one actor from one network and put him in another, he is no longer the same actor. Equivalence between the two can only be ascertained by an observer who can uncover the translation chain that creates the equivalence between the two actors. Not only has the original distinction between human and natural things been removed, but the very identity of human or non-human actors with themselves has been problematized.⁴⁶

Since 2007, Antoine Hennion has distanced himself from ANT's rejection of the presence of essences in the actors, which precede every action as an event.⁴⁷ Graham

⁴² Cf. Georgi Kapriev, 'Gregory Palamas and George Scholarios: John Duns Scotus' Differentiation between Substance and Energy and the Sources of the Palamite Tradition', *Analogia: The Pemptousia Journal for Theological Studies*, 5 (2018): 35–56.

⁴³ Tanev, 'Actor-Network vs Activity Theory' (cf. n. 4), 76–77.

⁴⁴ Bruno Latour, *The Pasteurization of France*, transl. Alan Sheridan and John Law (Cambridge, MA – London: Harvard University Press, 1988), 162.

⁴⁵ Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge, MA: Harvard University Press, 1999), 122.

⁴⁶ Чалъков, *За предприемачеството и устояването в науката* (cf. n. 5), 27.

⁴⁷ Cf. Antoine Hennion, 'Those Things That Hold Us Together: Taste and Sociology', *Cultural Sociology* 1 (2007), 97–114; Antoine Hennion, 'A la recherche de l'objet perdu ...?', *Les usages de la sociologies de l'art: constructions théoriques, cas pratiques*, eds. Sylvia Girel and Serge Proust (Paris: L'Harmattan, 2007), 25–42; Antoine Hennion, 'Affaires de goût. Se rendre sensible aux choses', *Sensibiliser. La sociologie dans le vif du monde*, eds. Michel Peroni et Jacques Roux (La Tour d'Aigues: Éditions de l'Aube, 2009), 161–174; Antoine Hennion, 'Réflexivités. L'activité de l'amateur', *Réseaux* 1 (2009): 55–78.

Harman pointed out in 2015 that in the world of Latour's scientific research, 'there is no place for the Aristotelian concept of substances that remain the same thing over time even as their accidents and attitudes change'.⁴⁸ Harman then published several papers praising ANT's achievements and Latour himself, but criticized exactly his anti-essentialism. Back in 2005, we also suggested a clear alternative pointing in the same direction. We outlined the opportunity to think about emerging actor-networks and interactions between human and non-human actors in them, with an emphasis on the concept of essence. It allowed us to maintain the asymmetry between actors without returning to the 'Cartesian' distinction between society and nature, and between consciousness and body.

We are actually aware of the resistance of many, including many actor-network theory proponents, against the concept of essence established in the West. We believe that such resistance is the result of a kind of terminological inertia that is typical of Modern Western philosophy and that tends to reduce the essence to a logico-epistemological abstractum—an essence understood as commonly and impersonally, but also 'really', present in each individual. This resistance has been clearly outlined by Karl Marx in his *Thesen über Feuerbach* of 1845. Obviously puzzled by the objectification of the cognitive abstraction of 'essence', Marx goes to the other extreme, effectively formulating a radically relational anthropology.⁴⁹

Driven by an (understandable) nausea from the absurdity of such kinds of being Jean-Paul Sartre, for example, uses the terms 'essence' and 'nature' as referring to the actual 'image' or 'figure' of the Self. He is however also fully aware that by means of his or her potential capacities every human being is a human and not 'moss, mold or cauliflower'. This is why Sartre is forced to accept the existence of conditional human universality (*une universalité humaine de condition*). He prefers to speak of 'human condition' (*condition de l'homme*) instead of 'human nature' (*de sa nature*).

⁴⁸ Graham Harman, '3D Printing and Actor-Network Theory', *International Journal of Actor-Network Theory and Technological Innovation*, 1 (2015): 4.

⁴⁹ '5. Feuerbach, not satisfied with *abstract thinking*, wants sensuous contemplation; but he does not conceive sensuousness as *practical*, human-sensuous activity. 6. Feuerbach resolves the essence of religion into the essence of *man* [the human nature]. But the essence of man is no abstraction inherent in each single individual. In reality, it is the ensemble of the social relations. Feuerbach, who does not enter upon a criticism of this real essence is hence obliged: 1. To abstract from the historical process and to define the religious sentiment regarded by itself, and to presuppose an abstract – *isolated* – human individual. 2. The essence therefore can by him only be regarded as 'species', as an inner 'dumb' generality which unites many individuals in a *natural way*' – Karl Marx, *Theses on Feuerbach*, <https://www.marxists.org/archive/marx/works/1845/theses/index.htm>, accessed December 27, 2019 [with my corrections in the translation GK].

The German original version: '5. Feuerbach, mit dem *abstrakten Denken* nicht zufrieden, will die *Anschauung*; aber er faßt die Sinnlichkeit nicht als *praktische* menschlich-sinnliche Tätigkeit. 6. Feuerbach löst das religiöse Wesen in das *menschliche* Wesen auf. Aber das menschliche Wesen ist kein dem einzelnen Individuum inwohnendes Abstraktum. In seiner Wirklichkeit ist es das ensemble der gesellschaftlichen Verhältnisse. Feuerbach, der auf die Kritik dieses wirklichen Wesens nicht eingeht, ist daher gezwungen: 1. von dem geschichtlichen Verlauf zu abstrahieren und das religiöse Gemüt für sich zu fixieren, und ein abstrakt – *isoliert* – menschliches Individuum vorauszusetzen; 2. Das Wesen kann daher nur als „Gattung“, als innere, stumme, die vielen Individuen *natürlich* verbindende Allgemeinheit gefaßt werden' – http://www.mlwerke.de/me/me03/me03_005.htm, accessed December 27, 2019.

This is ‘the ensemble of the *a priori* boundaries drawing the fundamental human situation in the universe’ (*l’ensemble des limites a priori qui esquissent sa situation fondamentale dans l’univers*). These boundaries are neither objective nor subjective but have both objective and subjective aspects. The existential human project aims at their redrawing and rearrangement, overcoming or adapting to them.⁵⁰

One should also add that the drawing of these boundaries does not delimit an empty space but the actual human potentialities, which are realized and actualized through their activities. Interestingly, the Byzantine understanding of ‘essence’ and ‘nature’ could be described in a very similar way. (It is the general principle / λόγος of the being of things, expressed separately and in a unique way by the individual thing.) The Byzantine thinkers distinguish between ‘nature contemplated in a species’ (ἐν τῷ εἶδει) which is used to form the general concept of any given nature, and nature contemplated as existing in a specific individual (ἐν ἀτόμῳ). In the second case the nature is considered under the conditions of its actual existence. There is a difference between the two ways of seeing nature. For example, the living rational and mortal nature of a unique human being does not entirely overlap with the human nature of any other human being; it is characterized by its proper particularities and not the particularities of anybody else.⁵¹ From the second point of view nature does not precede the different beings who are the carriers of its characteristics. The essence or nature of a thing is primarily a source of energetic manifestations.

5. The hypostasis

Following this line consistently, Byzantine thinkers have refined the conceptual apparatus. This refinement is necessitated by the fact that they faced a problem unknown to antiquity: the problem of personal salvation—not the fate of human nature, not of humanity, but of the individual. Crucial here is the concept of ‘hypostasis’ (ὑπόστασις).

‘Individual’ (ἄτομον) is identified with ‘hypostasis’ (and ‘person’/ πρόσωπον) only insofar as the term denotes a particular being attached to an essence. The individual in his own sense is the singular representative of a species. The individual is someone or something that could still be divided, but after the division its original definition would be lost.⁵² The individual signifies the distinction of the singular representatives of a species by number.⁵³ However, the numerical difference does not indicate uniqueness. When we talk about individuals, we ask the question ‘what is

⁵⁰ Jean-Paul Sartre, *L’existentialisme est un humanisme*, <http://www.danielmartin.eu/Textes/Existentialisme.htm>, accessed December 27, 2019.

⁵¹ Johannes Damascenus, ‘De haeresibus’ (PG 94:745B–748C). Cf. Johannes Damascenus, ‘Expositio de fide orthodoxa’ (PG 94:1021D–1024A).

⁵² For example, the human individual is divisible further in body and soul, but none of these parts are the human being.

⁵³ Cf. Johannes Damascenus, ‘Dialectica’, 5; 11; 50 (PG 94:541CD; 573AB; 632A).

this?’ and the answer refers to the name of the species whose singular representative is the individual. ‘Individual’ is a term that is much more connected with the natural than the hypostatic characteristics. Maximus the Confessor, defining precisely the concept of ‘hypostatic difference’ (ὕποστατική διαφορά), correctly points out that the separation by number of things having the same essence determines the multiplicity of the individuals.⁵⁴ An abstract essence subsists not as identical but as similar at the level of the individuals of a species, and as a carrier of unique existence, a thing is understood not in the horizon of its individuality, but in terms of its hypostasis (which, of course, does not imply any ontological or axiological hiatus between the two dimensions – at long last, ‘individual’ is not a natural subject par excellence).

The Cappadocians regard the hypostasis as the unique realization of the common essence. This realization is characterized by its unique properties, in which the emphasis is not laid on the properties but on their agent. They are not perceived as accidents but as constituents of the specific being.⁵⁵ Maximus the Confessor carries on the tradition in bringing precision and insists that nature itself is accepted in the hypostasis because nature exists only when hypostasized. The mutual imminence of nature and hypostasis means that an essence comes into being through a hypostasis and only through it. The hypostasis is what realizes the energy of nature.⁵⁶ If we could think the essence as actuality, then we must think the hypostasis as actualization. When defining the concept of ‘hypostasis’, Maximus presents the two definitions formulated so far by tradition and views them as naturally combined: ‘hypostasis’ is what exists in itself and separately; at the same time, it is one essence in togetherness with properties that distinguish the specific hypostasis from the other hypostases of the same nature.⁵⁷ Besides this, he describes the hypostasis as an *acting subject* (ἐνεργῶν).⁵⁸ He especially underlines the irreducibility of the hypostatic order to the natural (essential) one.

In this context, Maximus states quite instructively:

Each of us acts (ἐνεργεῖ) initially as something, that is, as a person. Acting as someone, for example Paul or Peter, he forms a (certain) mode of action (τὸν τῆς ἐνεργείας τρόπον), for example, by weakening or strengthening, forming himself in this way in accordance with his inner will (κατὰ γνώμην). It follows therefore that what is different in persons with regard to the mode of action is recognized through their activity (πρᾶξις), while the uniformity of natural action follows from the logos of nature.⁵⁹

⁵⁴ Maximus Confessor, *Opuscula theologica et polemica* 14 (PG 91:152B).

⁵⁵ Cf. Basilus Magnus, ‘Epistula XXXVIII’, 2–3 (PG 32:325B–328C).

⁵⁶ Maximus Confessor, ‘Opuscula theologica et polemica’, 16 (PG 91:205AB; 26:260D–268A).

⁵⁷ Maximus Confessor, ‘Epistulae’ (PG 91:557D).

⁵⁸ Maximus Confessor, ‘Opuscula theologica et polemica’, 16 (PG 91:205BC).

⁵⁹ Maximus Confessor, ‘Opuscula theologica et polemica’, 10, (PG 91:137A).

Natural energy is the same in all individuals. It is the carrier of the form of the species. However, this form is being actualized hypostatically. This is what makes it possible to speak of natural energy in the plural.⁶⁰

The hypostasis extrapolates the natural energy according to its hypostatic properties. The character and intensity of this extrapolation depend on the way the hypostasis exists and not on the existence of nature and because of this the hypostatic characteristics leave a strong imprint on the manifestation of energy. The existential action of a concrete hypostasis can be stronger or weaker, more dispersed or more concentrated; it can change its intensity and concentration in time. But the only thing that is certain is that the natural energy (existential action) can never be missing. And there is no principal difference when speaking of the hypostasis or the energies of rational or un-rational beings.

6. *The hexis*

If the hypostasis manifests specifically natural energies, how exactly does it make them personally or hypostatically unique? Or how and in what sense can we claim that the specific way of manifestation of the natural energies depends on a specific hypostasis? On what basis can we claim that the existential energies might vary in their intensity—not only across different hypostases, but also in a specific hypostasis according to its existential states and temporal periods?

The answer to these questions was paradigmatically given by Maximus the Confessor: the hypostatic specificity can be explained by the concept of *ἕξις*. It defines the hypostatic factor in the manifestation of the natural energies/actions. Maximus understood the Aristotelian concept of *ἕξις* mainly as an ‘inner hypostatic state’ or ‘stable predisposition’ in opposition to *θέσις* which is translated as ‘emplacement’ or ‘position’ and describes the natural order of beings. *ἕξις* is also different to *διάθεσις*, which is usually translated as ‘disposition’ and refers to the less stable attributes that are easy to remove and change. Aristotle distinguishes (in consideration of the human being) two types of attributes as ‘stable inner states’: some are present from birth, and some are assumed during life.⁶¹ The same is analogically valid for every singular being. Maximus defines *ἕξις* as ‘constitutive characteristic’ (*συστατική ιδιότης*) for the activity of the *ὑπόστασις*. The *ἕξις* is described as potential and as a medium or mediator (*μεσότης*) between forces and energies.⁶² *ἕξις* is a stable internal inclination that defines *τρόπος χρήσεως*, the specific way of using the natural powers and capacities within the respective way of life (*τρόπος ζωῆς*).

⁶⁰ Cf. Василий М. Лурье, *История византийской философии* (С. Петербург: АХИОМА, 2006), 378–379.

⁶¹ Aristotle, *Categories*, VIII, 8b26–9a13.

⁶² Maximus Confessor, ‘Disputatio cum Pyrrho’ (PG 91:352A).

The ἔξεις are the hypostatic factor in the direction and definiteness of the actions. They are the inner filters of the natural actualization. The teaching about ἔξεις positions the problem of the being within a clearly hypostatic perspective. Maximus the Confessor considers the ἔξεις as pillars of self-determination, where ἔξεις directly associates with what is realized in the time process.⁶³ *Mutatis mutandis*, the concept of ἔξεις corresponds to *Gestimmtsein*, *Stimmung*, and *Befindlichkeit* in Heidegger: he interprets *Befindlichkeit* as a constitutive element of the *In-Sein*.⁶⁴

The ἔξεις are best understood as subject-carrying or psycho-morph mediators. In addition, they are in complete accordance with the requirement that ‘mediators are not causes and that without transformations or translations no vehicles can transport any effect’.⁶⁵ From the point of view of Byzantine scholars, the dominant understanding of *habitus* (even within the context of ANT itself)⁶⁶ appears to be unable to incorporate the complexity of the Greek notion of ἔξεις. In the Latin context, however, *habitus* appears much closer to the domain of causal movements and to the attributes of the substance, since it characterizes something in the world in its reference to the other things and in its positioning at some established order.

The ἔξεις rather add the specific definiteness of being in the *tropes* (τρόποι) of their dynamics, hence they are taken (in the case of the human being) as a fundamental demonstration of freedom. Through the personification of his natural energies, a man becomes responsible for the constitution of his or her own being. Indeed, both the forces and energies are natural, but they are defined and specified hypostatically via the ‘filter’ of the stable inner states, the ἔξεις. It is important to emphasize that the ἔξεις do not simply ‘process’ the natural energies: they define the natural energies (the energies in the proper sense) and direct the causal energies (the ‘movements’).

It is from this perspective that one should reflect on the ‘naturalness’ of social innovations and the changes in paradigms, lifestyles, and ways of social existence that are quite often inexplicable in the context of the visible circumstances. This reflection should also include the perseverance or endurance, independently, and even in spite of any social, cultural, biological, or other predeterminations. Thus, finally, one can explain the unequal intensity of the natural energies radiated simultaneously by different beings, or by the same being at different moments of its own history.

Taking the perspective of ὑπόστασις and ἔξεις leads necessarily to the hypothesis that the transition of an actor from one to another network makes him/her an ‘other’: that the actor is deprived of self-identity. The existence and agency of the ἔξεις presuppose and guarantee precisely the specific history of the hypostasis. It is from its horizon that the effects of durability, resistance, suffering, or endurance can be identified. The analysis of specific social situations, carried out within the

⁶³ PG 91:324D–325A.

⁶⁴ Martin Heidegger, *Sein und Zeit* (Tübingen: Niemeyer, 1979), 11.

⁶⁵ Cf. Latour, *Reassembling the Social* (cf. n. 16), 214.

⁶⁶ Cf. Ibid., 211; Kapriev, ‘The Byzantine Trace’ (cf. n. 3), 138.

ANT paradigm, shows that a 'translation' inevitably implies the existence of an initial 'script' (story) or configuration of actors with actual inscribed interests (and therefore stories) who then undergo the process of transformation. The unfolding of Latour's research topics (e.g., Pasteur and entrepreneurship) shows that understanding activity as a sequence of 'events' and sociality as a process of continuous transformation requires something pre-existing, something durable and permanent:⁶⁷ the activity records or stories of the human and un-human actors. They should be considered an expression of the uniquely personal existential predispositions and histories of the actors that could be described through the concepts of hypostatic particularity, existential actions mediated by their *ἐξεις* and perichoretic synergy.

7. The *perichōrēsis* and the synergy

The use of the notion of *ὑπόστασις* allows avoidance of traditional problems in the assumption of the 'actantial' character of the objects considering them as autonomous agencies in their different interactions. It should be emphasized that the being in a hypostasis is potentially able to incorporate or en-hypostasize the existential energies of other natures. The hypostases do not only manifest their natural energies but also incorporate external natural energies that become part of their own hypostatic existence. In this way, by means of their proper energies, different hypostases can interpenetrate each other or co-inhere in each other. It is the so-called 'perichoresis' (*περιχώρησις*, interpenetration): the inter-communication and mutual energetic penetration of two or more natures together with their properties and energies. The expression *ἀντίδοσις ἰδιωμάτων* (exchange of properties) has the same meaning. It expresses the fact that the properties of the two natures are not simply attributed to the hypostasis. There is a real exchange between the natures and their properties. In this interpenetration or co-inherence both the natures and hypostases preserve their otherness. The single hypostasis is able to accept the actions of hypostases of a different nature without becoming one with them, and based on this, to modify its habitual causal and existential actions.

It is not a secret that these concepts were first introduced in Christian philosophy in order to explain the relation between the two natures within the composite hypostasis of Christ. The term *περιχώρησις* describes the mutual inter-penetration or co-inherence of Christ's Divine and human natures together with all their properties and energies, preserving their otherness in relation to each other including their natural properties (Christ is 'perfect in His Godhead and also perfect in His manhood; truly God and truly man'). Here it is strongly emphasized that the divine nature in the hypostatic union does not absorb the human nature, but includes it in a synergy/*συνεργία*, co-action and co-activity.⁶⁸ The Byzantine tradition extends this

⁶⁷ Cf. Чалъков, *За предприемачеството и устояването* (cf. n. 5), 31 et 117.

⁶⁸ Cf. Maximus Confessor, 'Ambigua ad Thomam', 5 (PG 91:1053B); Id., 'Opuscula theologica et polemica', 16:208AB); Id., 'Disputatio cum Pyrrho' (91:337CD).

understanding to all hypostases and natures, both finite and infinite, that are en-hypostasized within the hypostases.

Gregory Palamas maintains that the God-blessed—the saints—are filled with divine natural energy and thus live the life of God Himself. The en-hypostasization of the supernatural energies (i.e., the existential energy of the divine nature) is the essence of their deification (θέωσις). While observing the tradition, Gregory Palamas interprets the deification of man analogously with the deification of Christ's humanity due to the *περιχώρησις* within the hypostatic union. Palamas insists that this relationship, unmediated by creation, cannot be thought as anything else but participation in God himself, not participation in his nature, but only in his extra-trinitarian manifestations, that is, his actions and energies.⁶⁹ This participation is the contemplation of the divine energy. Palamas emphasizes that the knowledge of God through his eternal energies is supernatural in the true sense of the word. In it, the nature of man is enlightened by the Divine light, which is above human nature, and in him the existence of God is at work: he is deified.⁷⁰ This immediate existential knowledge of God is therefore called 'experience' (πείρα). In deification, man rises 'beyond' the existential limits of his nature. This cannot happen on the basis of natural human capacities—repeats Palamas—because otherwise a man could become a god in his own human nature.⁷¹ The deified man does not cease to be a man by nature, but his natural energies are in synergy with the divine natural energies and introduce divinity into his existence.

The fact that the concept of *περιχώρησις* denotes the mutual penetration and co-inherence of two (or more) different natures (together with their own properties and energies) while preserving their proper otherness opens a unique opportunity to enhance the conceptual apparatus and the explanatory power of ANT. The opportunity is associated with the possibility for the description of specific circumstances associated with the emergence of composite hypostases including or combining multiple sources of agency as well as circumstances associated with the inclusion of multiple natures (for example, human and non-human, but also the radically different non-human natures of technological and non-technological artifacts) under the guidance of seemingly single actants.⁷²

This perspective allows the emancipation of objects and non-human beings with respect to man and treating them as full-fledged actors within the framework of the new understanding of activity proposed by ANT, while maintaining the aspect of asymmetry in their relations and the peculiarity of human and all other actors.

⁶⁹ Gregorius Palamas, 'Contra Akindynon', I,6, *Γρηγορίου Παλαμά Συγγράμματα*, τομ. 3, επιμ. Παναγιώτης Χρήστου (Θεσσαλονίκη: Κυρομάνος, 1970), 42, 6–10.

⁷⁰ Gregorius Palamas, 'Theophanes', 21 et 29, *Γρηγορίου Παλαμά Συγγράμματα*, τομ. 2, επιμ. Παναγιώτης Χρήστου (Θεσσαλονίκη: Κυρομάνος, 1966), 247, 14–17 et 256, 23–257, 8.

⁷¹ Gregorius Palamas, 'Triades', III,1, 26, *Γρηγορίου Παλαμά Συγγράμματα*, τομ. 1, επιμ. Παναγιώτης Χρήστου (Θεσσαλονίκη: Κυρομάνος, 1988), 638, 21–26.

⁷² Tanev, 'Actor-Network vs Activity Theory' (cf. n. 4), 78.

In this context, however, it should be emphasized that the elimination of the ‘natural-social’ contradiction leads to the relativization of the ‘natural-cultural’ relationship. However, in the proposed model this relationship is not completely eliminated. Culture is understood here as the exchange of signs—explicitly and historically formed, accumulated and transmitted through a tradition and its corresponding languages; signs that are validated in a social community, generating an action and forming part of it. All this refers again to the specifics of the actor, as well as to two other important elements in our analysis: corporeality and, respectively, inter-corporeality.

8. *The body*

All available energies in a hypostasis—its own existential and causal natural actions, as well as the en-hypostasized activities of other natures, are in a state of *συνεργία* (synergy, co-operation), which is realized in the body and which the body manifests. Gregory Palamas is the Byzantine thinker who particularly emphasizes that the body is the absolute possessor, co-ordinator, and mediator of every human experience, both its own and the supernatural. He considers the body as the actual holder of man in being, which makes him a human being and defines his peculiar position in the world.

Palamas perceives the heart (*καρδία*) and not the mind as the center of the totality of a deified human being. Our soul, he explains, is both living and acting, it possesses many powers (*πολυδύναμον πρᾶγμα*), one of which is the *νοῦς* (the mind). The soul uses its own body as an organ and imparts life in it (*χρήται δ’ ὡς ὄργανω τῷ ζῆν κατ’ αὐτὴν πεφυκότι σώματι*). The heart is the inner container (*μεσμεσαίτατος ὄχμα*) of all naturally and supernaturally enabled human energies. It is defined as the ‘first corporeal organ of the *nous*’ (*πρῶτον σαρκικὸν λογικὸν ὄργανον*), as the governing organ (*ἡγεμονικὸν ὄργανον*), and the throne of the graceful gifts, where the *νοῦς* and all noetic thoughts are stored. That is why a praying mind feels itself, its properties and states in the heart itself. In this sense, Palamas emphasizes the need for the practitioners of *ἡσυχία* to constantly return and enclose their minds in the body, and especially in the innermost body of the body, which is the heart.⁷³

Palamas, who lays a great emphasis on the psychosomatic integrity of man, regards the body as the organ that co-ordinates man’s natural (noetic, psychic, and somatic) and supernatural energies. Through this organ, they come together, step out of the body, and influence the surrounding world.⁷⁴ Thus, in the Byzantine tradition

⁷³ Gregorius Palamas, ‘Triades’, I, 2, 3; II, 2, 16, *Γρηγορίου Παλαμά Συγγράμματα*, τομ. 1, επιμ. Παναγιώτης Χρήστου (Θεσσαλονίκη: Κυρομάνος, 1988), 395, 17–396, 22; 524, 9–12.

⁷⁴ Cf. G. Kapriev, ‘The body as coordinator of natural and supernatural energies in human beings in Maximus the Confessor and Gregory Palamas’, in: *The Wedding Feast*, ed. Paul Ladouceur (Montreal: Alexander Press, 2010), 103–112.

there is an emphasis on the fact that the human body (and through it the human psychosomatic integrity) can incorporate and assimilate actions/energies originating in other beings. Once assimilated, these energies enter into a synergy (synergizes) with the energies in the human body and it is the body again that manifests the synergy outwards.

Based on the above insights, we can claim that the emergence of stable and long-standing heterogeneous micro-communities based on the human inter-action with the particular properties of specific non-human agents can be described as a unique relationship of inter-corporeality.⁷⁵ At the same time, it is important to note the asymmetry of these interactions, with all forms of mutual activity and passivity resulting from the contextuality of the specific circumstances and the differences in the natures and the hypostases involved in them.

9. *Hypostasis and person*

Michel Callon and Bruno Latour presume certain basic differences between the agents involved in the heterogeneous interactions: ‘demanding that the non-humans should have intentions in the same way as humans is in itself an anthropocentric or sociocentric demand.’⁷⁶ The Byzantine tradition addresses these differences by distinguishing between *ὑπόστασις* and *πρόσωπον*/person. This synonymy arises from the fact that they are used by Byzantine authors mostly in the field of the doctrines of the Trinity, Christology, and anthropology. The differences appear in comparison with the other beings. Every self-existing being has its hypostasis, including inanimate objects such as stones, machines, trees, and houses, while *πρόσωπον* denotes only rational beings (God, angels, human beings), who form their mode of action through a rational will. John Damascene borrowed the distinction drawn by John Philoponus. From this point of view, a person is determined by the relation of a rational hypostasis to other hypostases. According to the Damascene, we can say that an administrative officer represents the person of the emperor (*τὸν ὑπαρχον δὲ πρόσωπων ἔχει τοῦ βασιλέως λέγομεν*)⁷⁷—he is delegated by the emperor. Hypostasis, however, cannot be delegated.

This distinction generates a paradox. If we accept that it is the hypostasis that manifests the energies belonging to the en-hypostasized nature (or natures), we should conclude that every single hypostasis is in a state of active energetic exchange with all other hypostases becoming by necessity part of a ‘dialogical network’. On the other hand, obviously, every rational being can choose to communicate or not

⁷⁵ Tanev, ‘Actor-Network vs Activity Theory’ (cf. n. 4), 79.

⁷⁶ Michel Callon, Bruno Latour, ‘Don’t Throw the Baby Out with the Bath School! A Reply to Collins and Yearley’, *Science as Practice and Culture*, ed. Andrew Pickering (Chicago: University of Chicago Press, 1992), 352–353.

⁷⁷ Johannes Damascenus, ‘De haeresibus’, 83 (PG 94:749C).

with others, consciously choosing a state of self-isolation. We should therefore be very cautious when speaking about the relational character of the human person. Rational beings can consciously 'put themselves in the place of other beings' and 're-present' them. What that means in the language of the teaching on the energies is that a person has the capacity and the ability to un-spontaneously direct, modulate, concentrate, or disperse his or her own energies. This is the special way for humans 'to take the relay' because of their nature and the constitution of their persons. This activity allows man to accept the actions of some 'other nature' through the relationships of inter-corporeality and make them the basis of a new type of (causal) actions of the human agent. Such perspective enables the unfolding of a new understanding of creative human activity (creativity).

Against this background, a currently debated topic can be dealt with. I mean the so-called transhumanism and the corresponding theories and considerations. According to the most popular opinions, transhumanism should be associated with the transformation of the human condition by developing and making widely available sophisticated technologies to greatly enhance the human intellect and human physiology. There are ongoing discussions of the potential benefits and dangers of emerging technologies that could overcome fundamental human limitations as well as the ethical implications and limitations of using such technologies. The most common transhumanist thesis is that human beings may eventually be able to transform themselves into different beings with abilities so greatly expanded from the current condition as to merit the label of post-human beings.⁷⁸ These enhancements, transhumanists insist, would arguably have a more radical impact on human beings than any other development in the history of humankind. Some of the emerging transhumanist questions are: Will 'post-human' technologies be available to all persons, or will a superior 'post-human race' arise to dominate the human species?⁷⁹ The ongoing analyses raise concerns about the eventual historical end of humanity and foreshadow the impending loss of human identity that will be forced by the development of new technologies and their incorporation into the human condition. They talk about the generic limitations of human capacities, their natural borders, and the upcoming opportunity to go beyond them.

It should be noted here that such concerns can be found in any new era of technological development. Man has been long implanting technological tools in himself. Since the fourteenth century, the use of glasses has become more and more widespread, various types of dentures have been widely used, and so on. Indeed, developments in electronics and artificial intelligence seem to create completely new levels of challenges:

⁷⁸ https://en.wikipedia.org/wiki/Transhumanism#cite_note-Bostrom_2005-2.

⁷⁹ Cf. e.g., *Religion and Transhumanism: The Unknown Future of Human Enhancement*, eds. Calvin Mercer, Tracy J. Trothen (Santa Barbara, California – Denver, Colorado – Oxford, England: Praeger, 2015).

The technologies around us are becoming more complex, more intelligent and more autonomous as compared to what has been known before. This trend goes in parallel to an increasing scale of society which amplifies different societal pressures from a number of different perspectives... In the meantime, the only face, *persona* or *prosopon* before me is my computer screen. Behind this 'persona' emerges the hypostasis of the computer with all of its functions, interactive features, messages, pop-ups, failures or 'user friendliness'... In this sense non-human actors around us acquire a definite character and expression; they are endowed with a life on their own and with a presence.⁸⁰

In summary: the question is about the boundaries of the human condition. But, how far are the limits of human nature? How far does the potential of humanity reach? Answering these questions alone could provide some sense to any meaningful critique of 'transhumanism' as a potential destruction or abolition of the human. The anthropological perspective developed here places a bold question mark on such hypotheses. Human nature, if it eventually reaches its limits, will rather 'refuse' crossing and going beyond them: it will 'resist'. It is true that modern technological developments are really problematizing the current condition of humanity. But once again: how far are the limits of human nature or of the human condition in general? Where is the critical limit of the process of damaging or abolishing them? Thinking about the possible extreme effects of interactivity with respect to nature and hypostasis, we stated in 2005:

It should only be added that by definition and as a consequence of asymmetry, this process *cannot be limited*: it has no end *qua* end. A hypostasis cannot accept external energies entirely and completely. In this case too, the Byzantine philosophers manifest their radical views. Gregory Palamas states categorically⁸¹ that the movement towards the contemplation of God, i.e. towards the acceptance of the divine energies is continuous and does not end even in the outer world, in the face of God himself.⁸²

I can do nothing else but repeat once again: this process cannot be limited: it has no end *qua* end.

⁸⁰ Tanev, 'Actor-Network vs Activity Theory' (cf. n. 4), 80–81.

⁸¹ Gregorius Palamas, 'Triades', 2, 2, 11, *Γρηγορίου Παλαμά Συγγράμματα*, τομ. 1, επιμ. Παναγιώτης Χρήστου (Θεσσαλονίκη: Κυρομάνος, 1988), 517, 13–18.

⁸² Tchalakov, Kapriev, 'The Limits of Causal Action' (cf. n. 1), 420.

10. Concluding remarks

We once said that Byzantine philosophers would have been surprised to know that their insights and observations come in handy in sociology and in the other modern sciences.⁸³ Today I am not absolutely sure about that. Michael Psellus, for example, programmatically claims that, by going deeper into theory, he is able to grasp the principles / *λόγοι* of everything physical, mental, noetic, and supernatural. In this way he becomes an instrument of God (*ὄργανον τοῦ Θεοῦ*), thereby bringing closer to God and His creative providence (*ποιουμένη πρόνοια*) the boundary of humanity and, respectively, the definition of the anthropological.⁸⁴ I can point to a similar epistemic pathos in the works of other Byzantine thinkers, especially the ones who have written more systematically: *Fons scientiae* by John of Damascus and *Capita 150* by Gregory Palamas. The point is that the Byzantine philosophers' surprise would not be that substantial.

It is not our intention, however, to promote a kind of 'sociological palamism', for example. Byzantine philosophy failed in its systematic form by the middle of the eighteenth century at the latest. Our idea is instead to draw a parallel between problem situations in contemporary science and technology studies and in Byzantine theology and philosophy. By outlining the remarkable achievements of the latter and reconstructing the frameworks that made them possible, we would like to elicit some important methodological lessons relevant to the study of scientific and engineering practice.

Looking at the achievements of Byzantine thinkers allows us to more accurately highlight the concepts of activity which are so deep-rooted and somewhat naturally-occurring in the Latin tradition, in critical opposition to which actor-network theory (and the so-called 'pragmatic position' in contemporary sociology) developed its alternative understanding of activity as 'translation' and 'event'.⁸⁵

Considering what has been discussed so far, it should be noted that more efforts are needed in order to develop the potential of the proposed line of reasoning. Getting out of inherited thought patterns is a difficult and slow process and, quite often, only partially accomplished. In any case, at a seminar in Cologne in June 2015, Bruno Latour told me that for him 'hypostasis' is synonymous with 'substance'. If such prejudices are not overcome, however, the actor will continue to be thought of as an individual, and not as a hypostasis, not as a unique actor. The internal structure and the existential specificity

⁸³ Ibid.

⁸⁴ Michael Psellus, *De omnifaria doctrina*, 73, Critical text and introduction Leendert Westerink (Nijmegen: Centrale Drukkerij, 1948), 46, 10–14.

⁸⁵ Чалъков, *За предприемачеството и устояването в науката* (cf. n. 5), 191.

of actor beings operating in the networks will remain ‘black boxes’ and the degree of ANT’s theoretical abstractness will remain too high.⁸⁶ ‘ANT needs some further conceptual developments in order to be able to cover some important and unique aspects of human behavior’,⁸⁷ as well as the behavior of non-human actors. ‘And it is no coincidence that this requires a rethinking of the inherited notions of human activity—a rethinking that was initiated by ANT more than thirty years ago but, as we believe, was not fully accomplished’.⁸⁸ We remain fully convinced that the ‘Byzantine trace’ could open up new problems and challenges, new opportunities and perspectives.

⁸⁶ Kapriev, ‘The Byzantine Trace’ (cf. n. 3), 142.

⁸⁷ Tanev, ‘Actor-Network vs Activity Theory’ (cf. n. 4), 78.

⁸⁸ Чалъков, *За предприемачеството и устояването в науката* (cf. n. 5), 133.