

COSMIC SOUL IN HERACLITUS

by

MÁTÉ HERNER

Thesis submitted to the Department of Philosophy at CEU,
in partial fulfillment of the requirements of the
Master of Arts degree in Philosophy.

Accepted in conformance with the standards of the CEU.

Central European University

Budapest

May 2016

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ABSTRACT

In his 2007 article “On the Physical Aspect of *Psychē* in Heraclitus”¹ Gábor Betegh presents a new picture about the place of the soul in Heraclitus’ metaphysical landscape. He suggests that in Heraclitus, the term “soul” can refer not only to individual entities, but also to “a kind of stuff”, which then could be present not only in human beings, but also outside us. Thus, although the goal of the paper is to give an alternative account about what kind of an entity the soul is, the cosmological implications of this new interpretation also bring an old question back into the light, namely “Is there a world soul in Heraclitus’ cosmos?”.

My aim in this paper is to pursue Betegh’s interpretation further by exploring its implications for this question. I will argue that the cosmic presence of “soul stuff” is indeed a necessary corollary of reading “soul” as a mass term, and, when combined with the other cosmological claims made by Heraclitus, it can even shed light on some characteristics of this cosmic soul: it is one unified whole with a heterogeneous physical constitution, which plays an important role in the cosmic order, nevertheless, not as the cosmic principle behind the universal rule of the Logos, but as the most intelligent and most powerful constituent of the cosmos.

¹ Betegh, Gábor. “On the Physical Aspect of Heraclitus’ Psychology” *Phronesis* 52 (2007): 3–32.

ACKNOWLEDGEMENTS

I would like to thank my supervisor, István Bodnár for his many comments and suggestions on the several different drafts of this paper. I am indebted to Anna Marmodoro and Gerd van Riel. Their frank and kind support helped me a great deal with structuring my thoughts and giving them a direction. Last, but not least, I am grateful to Gábor Betegh, whose criticisms and suggestions, as well as his generous and unwavering support both for this project and other ones have been of great importance for me both professionally and personally.

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INTRODUCTION

The ambition of the first Greek philosophers was to reduce the puzzling multiplicity of the surrounding phenomena by offering a simple, elegant explanation for the myriad beings, events and processes of the world. Instead of the terrain for the immense powers of the capricious gods, the world in this picture became a coherent whole, with its different parts and processes all subject to one single rationale. This project often resulted in a blank and at times vehement rejection of any and all forms of anthropomorphism in the philosophical accounts about the nature and functioning of the world. Nevertheless, several early philosophers assumed that a superior, divine mind exercised complete control over the world, and later, Plato even argued that the cosmos as a whole had its own *psychē*.

It is my larger project to explore the significance of the concept of a world soul in the history of early cosmology by presenting it in the light of the preceding conceptions of cosmic order and the cosmic principles responsible for it. This paper is the first phase of my project. I will be offering further elaborations on the interpretation of Heraclitus' use of the term *psychē* offered by Gábor Betegh in his article "On the Physical Aspect of *Psychē* in Heraclitus"², focusing on its implications for Heraclitus' cosmology.³

After presenting the *status quaestionis* that existed before the article and what I take to be Betegh's contribution, I will move on to analyse in detail something that is mentioned cursorily by Betegh in the article, but is left without further elaboration: the supposed presence of a

² Betegh, Gábor. "On the Physical Aspect of Heraclitus' Psychology" *Phronesis* 52 (2007): 3–32.

³ In order to avoid conflation with modern uses of the term and to direct attention to the fluid character of the term in the period as well as the particular meaning attached to it by Heraclitus, I will be using the original Greek term, *psychē* (plural – *psychai*) instead of "soul" throughout this paper.

“cosmic mass of *psychē*” in Heraclitus’ cosmos. I will argue that the cosmic presence of “*psychē* stuff” is indeed a necessary corollary of reading “*psychē*” as a mass term, and, when combined with the other cosmological claims made by Heraclitus, it can even shed light on some characteristics of this cosmic *psychē*: it is one unified whole with a heterogeneous physical constitution, which plays an important role in the cosmic order, nevertheless, not as the cosmic principle behind the universal rule of the Logos, but as the most intelligent and most powerful constituent of the cosmos.

METHODOLOGY

My goal in this paper is to offer a philosophical interpretation of a certain set of textual evidence, which departs on a particular point from its usual renderings, and as a result, hopefully enriches them. As any such project, mine is also susceptible to various difficulties. Some of these are inherent to any and all attempts made at the reconstruction of ancient thought, while others are consequent on the specific character of my project.

To the first group belongs, first of all, the difficulty that stems from the fragmentary state of our evidence. This problem, typical, to a greater or lesser degree, of all research on ancient philosophy, is further exacerbated in the case of the Presocratics, as in their case, the difficulty lies in the fact that, while in the case of some – but by no means all – later philosophers, as for instance Plato, Aristotle or Philo of Alexandria, the fragmentary character of the evidence means that certain parts of their corpuses have been lost, with a large part, however, surviving more or less intact, even though we have evidence that some of the philosophers before Plato produced a substantial amount of writings, all of these are lost. The information we do have about these texts is without exception due to the quotations from, and account about these, found in the texts of later philosophers, theologians and historians of thought. This makes both kinds of our evidence, fragments and testimonia, problematic. As to the fragments, they offer only a partial peek into the original text, often, as in the case of Heraclitus, transmitting only a couple of words of a few lines from the original text. On the one hand, this makes the evidence incomplete with regard to both to the given thesis, but, importantly, also to the arguments leading to and supporting it. This means that the fragments are often quite difficult to interpret, because they lend themselves to several different syntactical reconstructions. In his recent book on Heraclitus,

Serge Mouraviev lists all the possible syntactical reconstructions of all the known fragments, which in some cases add up to more than a dozen.⁴

The lack of the complete text does not only make it difficult to decipher the original sense of these short snippets, but also means that even those interpretations that are relatively stable and uncontested are necessarily subject to the instability that stems from the vacuum surrounding them. In other words, even when we think we understand a fragment, we can only ever make educated guesses at how it fit into the whole of the Heraclitean system, how it related to other fragments, and if there could have been other these supporting it or relying on it.

The problem becomes even more difficult if we take it into account that the sources that survived to transmit these fragments and testimonia to us are not typically interested in the objective reconstruction of the views of others before them, but cite them much rather in support of, or as counterpoints against their own views. This makes these reports problematic for our purposes in two regards. First, it makes them prone to distortions in the direction of the views of those quoting them, or in the opposite direction, as extreme versions of the opponents' views. Second, the picture we get when piecing together these reports is bound not to reflect the original picture with its argumentative structure and characteristic points of emphasis.

⁴ Mouraviev, Serge. *Heraclitea III. Les Fragments du Livre d'Héraclite B. Les Textes Pertinents*. Sankt Augustin: Akademia Verlag, 2006

HERACLITUS' NEW CONCEPT OF *PSYCHĒ*

HERACLITUS - INTRODUCTION

Perhaps the most well-known of all of Heraclitus' surviving texts is the river-fragment: "Upon those who step into the same rivers, different and again different waters flow."⁵ The popularity of this fragment is not a modern phenomenon: it began with what, according to our evidence, is the earliest philosophical reflection on Heraclitus' thought, found in the dialogues of Plato. The attention Plato devotes to Heraclitus is relatively little when compared with other philosophers such as, for instance, Parmenides, and his remarks are, almost exclusively, centred around two themes: the obscurity of Heraclitus' mode of expression and his supposed assertion that that reality is inherently and essentially characterised by instability and flux.⁶ In Plato's presentation, then, Heraclitus becomes the natural counterpart and antithesis of Parmenides and his assertion of the fundamentally stable and unchanging nature of existence.

Practically all modern scholars agree, however, that, even though he could hardly be thought to deny it, it is not so much the transient and illusory nature of the world that is at the centre of Heraclitus' thinking, but rather that the genuine understanding of reality reveals the permanence and universality of a greater unity underlying the appearances.⁷ Indeed, as we have seen, reducing the puzzling multiplicity of the surrounding phenomena by offering a simple, elegant explanation for the myriad beings, events and processes of the world was one of the central ambitions of the first Greek philosophers. In this respect, then, Heraclitus is an heir to the tradition of natural philosophy. His new and original thinking, however, sets him apart from

⁵ Translation from Marcovich, "Heraclitus," 206.

⁶ Examples: Cratylus, etc.

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the Milesian philosophers in several respects. Perhaps the most important one of these is the attention he devotes to our place in the greater scheme of things, and particularly to our understanding of the world. When it comes to human understanding, he asserts, the unity of the world translates into the unity of truth, open to all to apprehend. One target of his generously offered and wide-ranging criticism is therefore the layman, who accepts the opinions of others without criticism, on the bare authority of their having been handed down to him through tradition. This attitude is all the more incorrect, for it perpetuates the opinions of the “great men”, whose method, “polymathy”, is in fact inadequate for reaching understanding.

Thus in B1, which we have good reason to believe are the first lines of his lost book,⁸ Heraclitus writes:

Although this account holds forever, men ever fail to comprehend, both before hearing it and once they have heard. Although all things come to pass in accordance with this account, men are like the untried when they try such words and works as I set forth, distinguishing each according to its nature and telling how it is. But other men are oblivious of what they do awake, just as they are forgetful of what they do asleep.⁹

It is immediately evident that Heraclitus here is expressing his deep frustration with the unwillingness of people to listen to what he is convinced is the true account of things.

Later, however, when he writes that “it is wise, listening not to me but to the *logos*, to agree that all things are one” (B50), it becomes clear that his main worry is not, or not primarily that people fail to recognize his personal achievements in explaining the cosmos, but that, by following their own opinions and, without discrimination those of others that have been handed

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⁹ +Greek. Translation from Kahn, “Art and Thought,” 29.

down to them by tradition, they fall short of their very own potential for understanding how and why things happen around them.

B1 brings together the two most characteristic themes of Heraclitus' philosophy: the ultimate unity of the world and his ardent criticism of people's ignorance. And indeed, it is precisely in the hopeless constancy of their failure to grasp the Logos that their ignorance is most aptly revealed, which puts them "at odds with that with which they most constantly associate."¹⁰

¹⁰ Translation from Kahn, "Art and Thought," 31.

PSYCHE IN HERACLITUS – THE CONSENSUS

PSYCHĒ IN HOMER

The use of the term *psychē* goes back as far as our written sources do. In its first appearances, in the Homeric epics, it is associated with the death or potential death of human beings. We can hardly suppose that these occurrences of the term can be traced back to a common, underlying theory of *psychē*, especially given that the texts of the Homeric epics are amalgams of diverse oral traditions. Therefore, on the one hand, the different occurrences of the same term may represent different underlying conceptual frameworks, and on the other hand, theoretical concerns are clearly secondary to other considerations such as imagery or poetic metre. One curious feature, common to these early occurrences, however, is that they are, without exception, associated with death, or the possibility of death. Characteristically, in the opening lines of the Iliad, the poet describes the devastation brought to the Achaeans by the rage of Achilles as his having “sent forth to Hades many valiant *psychēs* of heroes”.¹¹ *Psychēs*, then, are the shadows of humans, associated with their afterlife in Hades, and so also, negatively, with their lives before.

It is important to note that the concept (or concepts) of *psychē* that are used here are quite different than – although not entirely unrelated to – the meaning of the word we’re familiar with. At no point in the epic poems does the *psychē* appear as the central faculty of mental activity, the ultimate seat of emotions, perception, thinking and understanding and the core of our individual existence and behaviour. Indeed, it is not even the case that these functions would be conceptualised as associated with any one faculty. Instead, they are all given their own, characteristic place in us, typically located in one of the organs. Thus, for example, passions arise

¹¹ Translation: Murray, A. T., 1924. Source: Perseus online digital library. Retrieved: 17.04.2016. URL: < <http://www.perseus.tufts.edu/hopper/text?doc=Perseus:text:1999.01.0133> >

in the chest (*thumos*), grief in the heart (*ker*)¹². Not only it is the case, then, that cognitive functions are associated with a different faculty than in later times, but also that they are not associated with any one body part or organ, but are scattered in the body.

We have good reason to suppose that Heraclitus was the first to subject this concept of *psychē* to systematic revision and to place it into a complex philosophical account about the general structure and functioning of the world. Our evidence, however, shows that, even if there was no systematic re-evaluation of the concept, different people before Heraclitus did reflect on certain aspects of this concept. We have information about three such instances, two of which are of particular interest for my purposes here, for in a certain sense they prefigure Heraclitus' reflections, and the surviving fragments show that he was in dialogue with them.

The first one of these can be found in the famous poet from Lesbos of the late 7th and early 6th centuries BCE, Sappho. In a poem that only survives only in fragmentary form, Sappho addresses her lover:

[->quotation]

The significance of this fragment lies in the fact that, first, it attaches *psychē* to a living human being, and, second, that it associates it with her as an individual person.

The second important reinterpretation of the role of *psychē* is connected to Pythagoras, who, as our sources tell us, was the first in the Hellenic world to teach the transmigration of *psychēs*.¹³

The third trace of reflection on the *psychē* before Heraclitus is found in a later report about Anaximenes' views about the cosmos. In B2 we read:

¹² examples

¹³ citation

(...) As our *psychē*, he says, which is air, holds us together, so do breath (*pneuma*) and air encompass the whole world-order (...) ¹⁴

This fragment is important and interesting for several reasons. First, it attributes the cohesion of the human body to the presence of the *psychē* in it. Indeed, it isn't difficult to arrive at the conclusion that, if the departure of the *psychē* is death, then its presence in us, instead of merely being correlated with it, is in fact responsible for life. If, then, the *psychē* is the source of life, then it makes perfect sense to also ascribe the coherence of the body to it, for if the departure of an entity means death, and the ensuing decomposition of the body, then its presence means life and the composition of the body. Second, Anaximenes in this fragment is the first to draw an explicit analogy between the microcosm of the human being and the macrocosm of the world. It is tempting to suppose that, having drawn this analogy, Anaximenes would have gone further and assumed that there is functional similarity between the two as well, but the lack of further evidence means that the validity of any such claim would be very difficult to assess. Furthermore, it has to be pointed out that, if these are indeed Anaximenes' words, then they make it quite clear that what is meant is nothing more than analogy, which could very well be a partial one.

We have seen, then, that the concept of *psychē*, which initially stood for the individual shadow of human beings, travelling on to Hades after the death of the individual to continue some kind of a reduced individual existence, was in subsequent times extended and slightly reinterpreted as the bearer of life and individual essence in the living human being.

PSYCHE AS A FACULTY OF MENTAL FUNCTIONS

Heraclitus engaged with these developments, criticised their proponents, and proposed a new, comprehensive account about the place of *psychē* in the metaphysical structure of the worlds and its significance for human existence, both before and after death. Most of our information

¹⁴ Translation from Graham, "The Texts of Early Greek Philosophy," 77., with minor modifications.

about his views on the *psychē* in the living being comes from B117, a piece of his critical picture of the common man:

A man when drunk is led by a beardless boy, stumbling, not perceiving where he is going, having his *psychē* moist.¹⁵

As scarce as it may seem, this fragment is in fact as informative as it is significant. It doesn't only tell us what proper human behaviour is supposed to be like, but it also identifies the faculty responsible for human behaviour, be it proper or improper. Although the fragment doesn't say so explicitly, its metaphorical description of being drunk as the rule of "a beardless boy" makes it clear that the behaviour of the drunk man represents one case of the kind of behaviour Heraclitus thought was incorrect. In fact, as I will argue, other fragments clearly indicate that this description is not a special, isolated case of incorrect behaviour, but a general model for understanding incorrect behaviour in light of its metaphysical implications.

PSYCHÉ AS THE BEARER OF PHYSICAL PROPERTIES

By associating mental functions with the *psychē* he already stretches the conventional use of *psychē*. The *psychē* of the epics is only implicitly associated with the living human being, and although this association arguably extends to memory and perhaps even to individual essence, it certainly does not include perception, motion control and deliberation. A common feature of these is that they are all functions of control, oversight and understanding; in other words, they all belong to the circle of mental functions that we would describe as intelligence. The list, then, notably doesn't cover the passions and other emotions such as, for example, fear.

This, however, is only one aspect of his reinterpretation of *psychē*, which also involves an account of the afterlife, as well as one of the first reductive, rationalistic explanations of the mental functions. Perhaps even more surprising than the association of *psychē* with the intelligent mental

¹⁵ -> Greek! Translation from Kahn, "Art and Thought," 77.

functions of the living human being is the attribution of the incorrect behaviour of drunkards to a specific state of the *psychē*, its being moist. The correlation between the physical state of the *psychē* and its proper function is corroborated by another fragment, B118:

A gleam of light is the dry *psychē*, wisest and best.¹⁶

B117 and B118 show that *psychē*, the seat of mental functions, is the bearer of physical properties as well, and, in so far as they have immediate influence on its proper functioning, its physical properties essentially characterise *psychē*: the drier it is, the more successful it is in performing its functions of motion control, deliberation and understanding, while all these functions are hampered when *psychē* becomes moist.

B36: PSYCHĒ IN A COSMIC SETTING

Another fragment, B36, gives us reason to think that Heraclitus may have thought of the relationship between the mental and the physical as even tighter and more symmetrical than B117 and B118 let on. In B36, the famous counterpart of B31, *psychē* features together with two of the elements mentioned in B31, moisture and earth:¹⁷

For *psychēs* it is death to become water, for water it is death to become earth; out of earth water comes-to-be, out of water *psychē*.¹⁸

The presentation of *psychēs* in the cycle of elements is, again, unprecedented. The most immediately provocative aspect of the fragment, however, is not this, but the claim that *psychēs* die in the first place. In the Homeric epics, dying was not the kind of thing *psychēs* would do. Quite the opposite, in fact: there, as we saw above, it was the particular, characteristic duty of

¹⁶ -> Greek! Translation from Kahn, “Art and Thought,” 77.

¹⁷ Sea vs. Water (moisture)

¹⁸ Translation by Malcolm Schofield, “Heraclitus’ theory of *psychē* and its antecedents,” in *Companions to Ancient thought 2*, ed. Stephen Everson (Cambridge: Cambridge University Press), 15.

psychēs to carry on some kind of individual existence after death, and so death was their departure from the body.

The fragment starts with “*psychēs*” and ends with “*psychē*”, so at first it seems like it has run a full circle. Nearly all modern interpreters agree that the presentation of *psychē* alongside with the elements and the description of the elemental transformations in terms of life and death suggests that the relationship between the mental and the physical might be closer and more symmetrical than what can be gauged from the fragments we have seen so far¹⁹. That said, the wording of the fragment raises some questions: Is this a complete cycle? If so, is it the complete description of the cycle of elements, or only a partial one? How should we understand the claim that the elements “die”? Is the switch from “*psychēs*” at the beginning to “*psychē*” at the end significant? The answers different interpreters chose to give to these have in some cases led them to attach significantly different meanings to the fragment and assess its place in, as well as its importance for Heraclitus’ thinking in drastically different ways.

Marcovich argues that the presence of *psychē* should make it clear that the fragment is a description of the normal physiological processes constantly underway in all healthy human beings.²⁰ It follows that water and earth should be read metaphorically, as referring to blood and flesh respectively. This degree of metaphorical language use, he remarks, would be “strange but not surprising” for Heraclitus.²¹ To support his reading, he adds that Heraclitus’ motivation may have been to underline the analogy between the internal, bodily processes of human beings on the one hand, and the cyclical transformations of the surrounding natural world on the other. According to this interpretation, then, B36 is the physiological analogon of the cosmic B31, with *psychē/psychēs* standing in the place of fire.

¹⁹ Contra Marcovich, who thinks the death-life terminology is meant to emphasize the identity of these opposites

²⁰ Marcovich, “Heraclitus,” 364.

²¹ Ibid, 363.

Kirk maintains the parallelism between fire and *psychē*, but argues that the relationship between the two is closer than analogy, and the switch of fire for *psychē* is explained by there being “no essential difference between the two: *psychē* is a material which, slightly changed, exists also outside bodies.”²² The interpretation implied here is made explicit in “The Presocratic Philosophers”, where *psychē* is described as “a representative portion of cosmic fire”, accompanied by the conclusion, following naturally from this statement, that *psychē* is “the possessor in some degree of that fire’s (*i.e. the cosmic fire’s* – M.H.) directive power”²³, and “plays some part in the great cycle of natural change.”²⁴ Following a similar line of thought, Kahn concludes that “for Heraclitus everything is a form of life, and there can be no fundamental discontinuity between the realm of the *psychē* and the realm of elemental transformations.”²⁵

All these interpreters agree, then, that the relationship between *psychē* in us and fire in the natural world is of great significance, with their disagreements typically centred around the degree and the specific character of the connection: analogy in Marcovich, near identity in physical constitution in Kirk and KRS. Despite these differences, they all agree that the subject of the two fragments is the constitution of two distinct realms: that of the human being on the one hand, and that of the cosmos on the other, the first being the domain of the *psychē*, while the second one is the domain of (cosmic) fire. Furthermore, nearly all of them agree that the relationship between these two domains is in important ways asymmetrical, where the individual *psychē* is the analogon, or part of cosmic fire, and it is responsible for performing the analogous functions in the human body.²⁶

²² Kirk, Raven and Schofield, “The Presocratic Philosophers,” 341.

²³ Ibid

²⁴ Ibid. 204

²⁵ Ibid. 238.

²⁶ -> Examples: Kirk: no question of a world soul, Marcovich: he can’t imagine the water->*psychē* phase happening outside the human being

NEW INTERPRETATION OF B36 IN BETEGH (2007)

In his paper “On the physical aspect of *psychē* in Heraclitus” Gábor Betegh offers a new interpretation of B36. He follows Kahn and Kirk in assuming that the switch from “*psychēs*” at the beginning to “*psychē*” at the end of the fragment is significant, but suggests that its import extends beyond showing that individual *psychēs* are integrated into the physical processes of the cosmos. He argues that we ought to read the fragment as a description of the cosmic cycle, starting from the *psychai* of individual human beings, passes through the fundamental constituents of the cosmos, and, instead of running a complete circle and arriving back at the individual *psychēs*, concludes with “*psychē*”, which in this case stands not for an individual entity, but a kind of thing.

On this interpretation, the last phase of B36 belongs not to the category where the description started from, i.e. that of individual entities, picked out by “count nouns”, but instead to the sort of entities referred to in the subsequent phases, i.e. elemental masses. Thus, instead of a count noun, “*psychē*” at the end of the fragment is a “mass term”, listed alongside water and earth because it belongs in the same ontological category as these: just as human beings have portions of water and earth in us, we also have a portion of *psychē*, and they “show mental functions, and live, in so far as they have a share in that stuff (*i.e. psychē* – *M. H.*)”²⁷

The aim of Betegh’s paper is to offer an alternative interpretation for the metaphysical status of the *psychē*. His interpretation, however, is such that, if accepted, it has substantial reverberations also for the general character of Heraclitus’ cosmos. Betegh suggests that *psychē* is not of a different ontological character than the other constituents of the cosmos, or the secondary product of their specific configurations which arises only in humans and possibly

²⁷ Betegh, “On the Physical Aspect,” 12.

other living beings, but instead, it is a mass term, just like the other two stages of the cycle, water and earth. *Psychē*, then is in some sense on parity with the other two mass terms.

A corollary of this interpretation is that just as the other mass terms, water and earth, have their corresponding cosmic masses (namely mountains, oceans etc.), so *psychē* also has to have its corresponding cosmic mass or cosmic masses. Furthermore, just as the other cosmic masses also exhibit the same essential properties that their portions do, the cosmic mass of *psychē* will also have the same essential characteristics as individual *psychai*. That is, it will assume physical properties on the scale from moist to dry, and it will have the same kinds of intelligent mental functions that it has in us: perception, deliberation and motor control.

Given the consensus about the fundamental connection between the physical and the mental properties of the *psychē* and the attribution of cosmic control to fiery phenomena, it is perhaps not immediately evident what is at stake with the question whether or not we should follow Betegh's suggestion to understand Heraclitus' *psychē* as functioning both as mass term and count noun.

The significance of Betegh's interpretation for Heraclitus' cosmology is not so much its assertion that Heraclitus thought of cosmic control, knowledge and judgment as analogous to these in human beings, for his attribution of mental properties to meteorological phenomena, and to phenomena characterised by the same physical properties as those of highly functioning *psychēs* transpires clearly from the surviving fragments, and accordingly, it forms part of the scholarly consensus: no modern interpreter, and indeed none of the ancient commentators doubt this parallelism. The novelty of Betegh's interpretation is instead his assertion that the entity or entities performing these functions in the world and those performing them in us are not merely analogous, but they fall under the same ontological category, and this category is *psychē*.

What B36 reflects, then, is just as important for the fundamental physical constitution of the cosmos as it is for the individual human being, for Heraclitus here doesn't only claim that *psychē*, traditionally conceived as distinct from the body and the corporeal world, falls into the same metaphysical category as the fundamental constituents of the world, but also that the relationship between the physical and the mental is more than the one-way determination of the mental by the physical, and is in fact essentially characteristic and constitutive of the physical as well.

DIFFICULTIES AND FURTHER IMPLICATIONS

Betegh's aim is to offer an interpretation of the place occupied by *psychē* in Heraclitus' metaphysical landscape. Against the traditional interpretations, where the *psychē* is an individual entity, essentially linked to individual human beings and granted existence outside individuals to the extent only that the different interpretations allow for individual existence after death, according to Betegh's interpretation, individuality is not an essential characteristic of *psychēs*, but rather a property added to *psychē* in the specific case when it temporarily assumes its transient form of existence in individual human beings.

A corollary of this view is that *psychē* exists not only, and indeed, not primarily in individual beings, but, much like the other elements mentioned in B36, water and earth, has its own corresponding cosmic masses. If water, one of the major and fundamental constituents of the world, is a moist, supple, dynamic kind of thing that makes up for an important portion of our body and has a massive presence in the world in the form of coherent, largely continuous and homogeneous lumps of varying size – ponds, creeks, rivers, lakes, seas etc. – so *psychē*, another one of the major and fundamental constituents of the world, is the kind of thing that exerts control and understanding, which is present in human beings, and is responsible for these functions in us, it naturally follows that *psychē* must also have its coherent, largely continuous and

homogeneous cosmic lumps. Furthermore, the great cosmic lumps of the other elements exhibit the essential characteristic properties of their corresponding element, and do so to a degree proportionate to their size. The cosmic mass or cosmic masses of *psychē*, then, must also exhibit the same essential properties they exhibit in us, i.e. motion control, deliberation and understanding.

This is acknowledged by Betegh, but only in relation to the examples he provides for the conceptualisation of mind and intelligence as cosmic masses. As he writes:

A further corollary is that the cosmic mass of *psychē* (or mind) can be assigned cosmological roles because it can also be described as the greatest individuated portion of *psychē*, or mind, stuff. Indeed, from this aspect the cosmic mass of this stuff can function as a cosmic divinity. The ambiguity between an elemental mass and a corresponding cosmic god is a familiar phenomenon that we can observe for example in the cases of Okeanus and Gaia, or water and earth. The characteristics of this cosmic go will be those that we assign to *psychē*, or mind, in a human being: control, motor and cognitive functions and so forth.

He does not, however, address the question if these then apply also to Heraclitus' cosmology, and whether or not they should make us reconsider our picture of Heraclitus' cosmos.

It seems to me that the answer to both of these questions is yes. In the next, second part of my paper, I will argue that Betegh's interpretation shows Heraclitus' cosmos under a different light, but it also creates some interpretive problems that we need to overcome in order to show that this interpretation is a plausible alternative to the other ones.

First of all, what reasons do we have to think of *psychē* in B36 as a mass term, and so as of a closely related ontological character as the other two mass terms in the fragment, water and earth? Second, if it is indeed a mass term, how should we think of it: as one cosmic mass, or – as in the case of the other elemental masses – several cosmic masses of *psychē*? Third, as to its physical properties, is it, or are these homogeneous, or – as the human *psychē* – heterogeneous?

Fourth, how does cosmic *psychē* exert its characteristic functions of motion control, understanding and deliberation? Fifth, in other fragments Heraclitus mentions several instances of superhuman intelligence in the cosmos. How does cosmic *psychē* relate to these, and how much of their ruling and ordering activity should we assign to it? In other words, what role should we think the cosmic mass or cosmic masses of *psychē* play in the Heraclitean cosmos, and in particular, what place should we assign to it in its structures of cosmic intelligence? Finally, how does the individual human *psychē* relate to cosmic *psychē*? Is it derived from and/or sustained by it? Or is it one of its many individual instances?

COSMIC *PSYCHĒ* IN HERACLITUS

THE PHYSICAL CHARACTERISTICS OF COSMIC *PSYCHĒ*

Betegh points out that, remarkably, “*psychē* appears (*in B36*) together with two main elemental masses, water and earth”²⁸, and so, while *psychai* in the beginning refers to individual entities, and is therefore a count noun, *psychē* at the end of the text “seems to be treated on a par with the two physical stuffs”,²⁹ therefore it possibly also conforms to their syntactical role, and instead of a count noun, *psychē* here functions as a mass term.

He provides two arguments in support of this thesis. First, he argues that Heraclitus “uses language with utmost care and his formulations show a remarkably high level of consciousness”,³⁰ therefore, we should suppose that the switch from “*psychai*” at the beginning to “*psychē*” at the end of B36 conveys meaning: The first phase in the cycle of transformations describes how *psychai*, individual entities, turn into water, a kind of thing, while the last phase shows how one kind of stuff, water, is transformed into another kind of stuff, *psychē*. Indeed, it would be difficult to reconcile the tendency to loose formulation with Heraclitus’ reputation for a “gnomic” style, i.e. phrasing his ideas in the form of short, dense bits of text that are hard to interpret but carry plenty of information in a condensed form. Unless, of course, we subscribe to the ancient *topos* that Heraclitus was obscure and intentionally nonsensical. To my mind, the surviving fragments show enough clarity and complexity of thought to reject this view. Thus, it seems we have every reason to follow Betegh in supposing that the switch from plural to singular is significant.

²⁸ 30.

²⁹ Op. cit., 6.

³⁰ Ibid, 8.

Second, to demonstrate that such conceptualisations of intelligence were not unheard of at the time, he refers to other, roughly contemporaneous philosophical theories about the metaphysical status of the mental. A general feature of these accounts – i.e. of Anaxagoras, Diogenes of Apollonia and Socrates – he asserts, is that “that which is the bearer of mental functions in us is a stuff that occurs also elsewhere in the world in smaller and larger quantities. Human beings show mental functions, and live, in so far as they have a share in that stuff. In this respect *psychē* and *nous* are like other elemental constituents in us, and can be used as mass terms just like ‘fire’ or ‘earth’.”³¹ Concluding the brief section, he concludes that “a possible corollary of this approach is that the stuff in question does not need to be in a human, or animal, body to show mental functions. More exactly, if a theorist wants to hold that this stuff shows mental functions only when it is in a human (or animal) body, he needs to provide specific reasons why this should be so. A further corollary is that the cosmic mass of *psychē* (or mind) can be assigned cosmological roles because it can also be described as the greatest individuated portion of *psychē*, or mind, stuff. Indeed, from this aspect the cosmic mass of this stuff can function as a cosmic divinity.”³²

FROM PSYCHAI TO *PSYCHĒ*

The remarks Betegh makes about the cosmic counterpart of *psychē* concern the theories of Anaxagoras, Diogenes of Apollonia and Socrates, and he doesn’t say whether or not he thinks they apply also to Heraclitus’ cosmology, and how they apply if they do. Nevertheless, it seems safe to assume that a substantial part of what he says about these applies also to Heraclitus, otherwise these examples could hardly serve as support for his interpretation.

³¹ Op. cit, 12.

³² Ibid, 12.

Nevertheless, the argument for Heraclitus' careful use of language is not necessarily an argument for the "mass term interpretation", for what it shows is the significance of the switch from "*psychai*" to "*psychē*", and not its meaning. While it seems clear, then, that the switch conveys a difference in meaning between the two terms, it is not clear exactly what kind of difference.

The least problematic solution is to suppose that both "*psychai*" and "*psychē*" function as count nouns. Maintaining, then, that "*psychai*" refer to the individual *psychai* of human beings, "*psychē*" could be seen as referring to one, special *psychē*, presumably more excellent than all the other ones. Indeed, it could easily be the case that a similar way of thinking led one of our ancient sources, Aetius, to read B36 as describing the cosmic cycle of elements, ultimately leading into the most excellent *psychē*, the *psychē* of the world:

Heraclitus (says) the soul of the world is an evaporation (anathumiasis) of the moist things in it, while the soul of animals, which arises both from external and internal vapors, is of the same kind as the soul of the world.³³

It could be countered, however, that if indeed it was Heraclitus' intention to lead the cosmic cycle into a single *psychē*, could have made the reference clearer by attaching an article to "*psychē*", and so finishing the fragment with "the *psychē*", and not simply "*psychē*".

Alternatively, we could suppose that what we have here is an implicit criticism of the Pythagorean theory of transmigration of *psychai*, where they are reborn after death, unchanged in their essential, individual core. The shift in B36, then, could be meant to indicate the change individual *psychēs* undergo before being born again. In this case, we could suppose that the switch from plural to singular was meant to convey the thought that, although identity of kind is

³³ 22A15 DK = Aetius 4.3.12 (DG 389.)

preserved through the process of transmigration, the individual character of *psychai* is not, and so any one *psychē* that comes to be is in some way the descendant of a number of individual *psychai*.

A third alternative, mentioned also by Betegh, is that the singular “*psychē*” could stand for a class of things, or *psychai* in general. In this case, the fragment would be the description of a process typical for all *psychai*, or of “*psychē* as such”. The fragment, then, would be the description of a process generally typical of individual *psychai*, and thus it would not cease to refer ultimately to individual entities.

One could argue, however, as Betegh does, that the presentation of “*psychē*” alongside water and earth, and as undergoing the same kind of processes as these is good reason to suppose that its syntactical function should also be analogous to that of the other mass terms.

“The terms ‘water’ and ‘earth’” – writes Betegh – “refer in the fragment to elemental masses, and correspondingly function as mass terms. They do not, however, refer to individuated things with definite borders but to stuffs.”³⁴ Indeed, if a term refers to an elemental mass, it has to be a mass term. However, the ontological category mass terms refer to is much wider than that of the elemental masses: it comprises not only fundamental kinds of stuff, but kinds of stuff in general. Thus, the reverse is not necessary: something can be a mass term and not refer to an elemental mass.

It follows that, of the two characterisations of water and earth given here by Betegh, it is only the second one that applies to them on account of being mass terms, while the first one is due not simply to their functioning as mass terms, but to the fact that they are special mass terms, i.e. mass terms referring to the fundamental constituents of the cosmos. For while it is true that a term that refers to an elemental mass is necessarily a mass term, the reverse relationship does not have the same binding force.

³⁴ Op. cit, 9.

Therefore, even if “*psyche*” in B36 is a mass term, this doesn’t necessarily mean that it falls into the same ontological category as the other two mass terms in B36. Therefore, since it is not on account of being mass terms, but on account of referring to elemental masses that water and earth have their corresponding elemental masses, it does not follow from *psyche*’s being a mass term that there is a considerable mass of “soul stuff” in the cosmos.

It could be the case, then, that *psyche* in B36 is a mass term, but instead of referring to one of the elemental masses, it refers to a non-individual, but secondary entity. It is reasonable to suppose, for instance, that someone who subscribes to the theory of elements would think of water as one of the elemental masses, but wouldn’t think the same of mud, soup or coffee, even though all of these are mass terms as well.

From the claim that *psyche* can also function as a mass term nothing follows as to the quantity and quality of the entity or entities outside human beings that it refers to. In fact, all it shows is that, first, its essential properties are characteristic of the kind of thing it is, and so are independent of the particular existence of its individualised portions, and second, what follows from this, that its portions exhibit the same essential characteristics, independent of their individual characteristics: a glass of water is lighter and typically less dynamic, but not less wet than a river, and a pebble is just as solid as a rock.

This is important to note, for it has substantial bearing on the consequences of claiming that *psyche* in Heraclitus functions both as count noun and mass term. On the face of it, this means nothing more than that the term “*psyche*” does not always pick out an individuated entity, but it can also refer to a kind of stuff. However, it can easily be that the kind of stuff “*psyche*” refers to is not one of the fundamental kinds of stuff, but, as all other things in the cosmos, this is also a certain combination of these.

Thus, even if *psyche* in B36 is indeed a mass term, it doesn’t follow that it will have a cosmic mass comparable to those of the other two mass terms in the fragment, water and earth. Thus

we need another argument to show that there is a substantial mass of “soul stuff” in the cosmos. I will argue that, although it doesn’t show that *psychē* is one of the elemental masses, yet in another way, the claim that it functions as a mass term, when seen in the light of Heraclitus’ description of the orderly character of the cosmos, provides further clues as to how we are to think of the cosmic mass of *psychē*.

PSYCHĒ AND COSMIC FIRE

As we have seen, B117 tells us that by becoming wet, our *psychē*’s abilities to perform its functions are hampered, and this allows for the conclusion that it is in the opposite physical state, i.e. when it is dry, that it functions best. In the fragments where he gives a more detailed and less cryptic elaboration of the universally and perfectly orderly character of the cosmos, he describes it as due to functions analogous to these, and attributes these functions to entities characterised by the same physical property as the “wisest and best” *psychē* of B118, dryness. Thus from B66 we learn that “fire coming on will judge and catch up with all,”³⁵ while from B64 that “the thunderbolt pilots all things.”³⁶

In all these instances, control is associated with fiery phenomena. Furthermore, it is clear from the fragments describing the human *psychē* that the physical state most conducive to its proper functioning is when it has most of the characteristic property of fire, dryness. Should we suppose, then, that cosmic *psychē* is fiery or fire? Indeed, similar considerations have led several interpreters, ancient and modern, to argue that *psychē* for Heraclitus is fire.³⁷

³⁵ Translation adapted from Kahn, “Art and Thought,” 83.

³⁶ Ibid.

³⁷ -> examples: Kirk, Schofield,

Analogous functions attributed to analogous entities -> so there is strong analogy, and along the lines of physical characteristics

-> what kind of analogy?

Traditional interpretation: big thing with perfect control vs. small thing with imperfect control +> control associated with fieriness + the entities exercising cosmic control of purer, more fiery character, so they perform their function better than the human *psychē*, which is wetter

On this interpretation, it wouldn't make sense to call the entity responsible for cosmic control *psychē*, because *psychē* would be the inferior counterpart of the superior controller, cosmic fire

Accordingly, this view supposes that getting wet is not one of the characteristics, or not one of the essential characteristics of the governing entity, but an accidental circumstance that arises only in their imperfect state, i.e. when it is in humans.

(This (i.e. Schofield) is compatible with the mass term interpretation, and in fact, it seems to presuppose it: for if *psychēs* have the ability to become smaller, then their functions are not linked with its particular individual existence, but they can become smaller without ceasing to exercise their characteristic functions, and upon their becoming smaller, these functions would not cease, but they would only be decreased proportional to the loss in size. Although even with individual entities, there is a characteristic limit until which they still keep being what they are -> e.g. you can grind one arm of a person without their ceasing to be a person.)

This is compatible with calling the governing entity mass term, only the entity would not be *psychē*, but fire. For in order to claim that what is in us is properly referred to with a mass

term, we necessarily have to claim that it doesn't cease to be the kind of being that it is in us when it is not in us.

Betegh's interpretation is built on the opposite claim: that the proper way of referring to the entity that performs control in us is with a mass term not because what's in us is the same as what's outside us, but because what's outside us is the same as what's in us: if the *psychē* is a mass term, this means that we can still meaningfully refer to it as *psychē* even when it is outside us, and it loses its individuality with the same term that we used to refer to it when it was inside us. His innovation, then, is not that our governing faculty is to be referred to with a mass term, but that the mass term that ought to be used when referring to our governing faculty is "*psychē*".

Does this make Betegh's claim any different than the other one?

If the two governing entities were the same, the two claims would be equivalent. The answer to this question is thus to be found in the differences between the two governing entities. What's the difference between them? One is purely fiery and exercises perfect control, while the other one is (sometimes) wet, and, when it is, its control is flawed.

In order to claim that what's intelligent and outside us is *psychē*, we have to say that it shares the essential characteristics of *psychē*: this is the only case when it makes sense to call external intelligence *psychē*, and not the other way round.

The differences between the human *psychē* and the entities exercising cosmic control is in their physical properties and accordingly, the degree of control they exert. If we claim that the human *psychē* is essentially cosmic fire, and its wetness is due only to the unfortunate circumstance of its residing in humans. The imperfection of its functioning, then, is due not to one of its essential properties, but to an unfortunate, accidental property: its being in such circumstances where it can't fully exercise its characteristic activity.

(Or it's torn out from the whole, and, due to its mass, it can't exert the degree of control that it can exert when it's all together. CONTRA: function not due to size. Contra-contra: when he says that the greatest mass of *psychē* will be the most potent controller, and therefore a cosmic divinity, Betegh assumes the same principle he argues against.)

If, on the other hand, we make the claim that cosmic fire is the same kind of stuff that the human *psychē* is, then we're saying that the properties that distinguish it from cosmic fire are essential to it, and cosmic fire also has these (even if it doesn't necessarily have to exercise them). This is the consequence of claiming that the governing entity is to be referred to with a mass term, but not with fire, but with *psychē*.

...

Problem: 'analogous entities-analogous functions, but more wet, less efficient' -> yes, mass term, but not *psychē*, but fire AND if mass term, and *psychē*, then weird, because the only thing that we know is different about the *psychē* than cosmic fire is that it's (potentially) wet and its control is less perfect -> so with this we seem to ascribe imperfection to the cosmic *psychē* OR at least we are saying that, even if not actually, cosmic fire (the cosmic mass of *psychē*) is potentially imperfect

-> but then why call it *psychē*? Because then these governing entities could be one part/fraction of a greater mass that is not essentially pure, but has the ability to be pure and impure, and the purer it is the more perfectly controlling

Thus, in order to claim that *psychē* could be used as a mass term to refer to the entities described by Heraclitus as responsible for order and understanding in the cosmos, we would have to also claim that these entities are not purely fiery, and so the control and understanding they perform are imperfect. One could counter that this is not necessary, since human *psychēs* are also not necessarily moist. However, this criticism can be easily countered, and for two reasons. First, even though it is true that human *psychēs* are not constantly and

universally moist, we can reasonably suppose that, even if the level of their wetness may vary, all human *psychēs* are moist to a certain degree, for experience shows that no one of us has achieved perfect understanding of all, and no one is in perfect control of their movement (whatever this might mean). Furthermore, even if we grant that perfect dryness is one of the physical states of human *psychēs*, when the *psychē* is perfectly dry and its wetness is purely potential, we have no reason to suppose that such fluctuation in physical properties would be allowed in the case of the “dry beam of light” or the “thunderbolt”.

Therefore it seems to be the case that the claim that *psychē* as a mass term could be used to refer also to the counterparts of the *psychē* in cosmic control leads to absurdity, because it entails that we describe purely fiery entities, in perfect control and understanding to be moist and thereby to perform their functions imperfectly.

If we are to stick to the claim that *psychē* as a mass term is in some way descriptive of these entities, it seems that the only viable solution is to suppose that the mass term “*psychē*” refers not directly to these fiery entities, but to a larger entity they form part of. Thus we could avoid having to attribute wetness to entities that are essentially fiery without renouncing their role in bringing about the orderly character of the cosmos.

PSYCHĒ AS ONE OF THE ELEMENTS?

Therefore, if we are to argue that *psychē* in B36 has a corresponding cosmic mass, just like water and earth, we need an extra argument to show that *psychē* here is not merely a mass term, but a mass term of the same kind as the other two mass terms in the fragment, and so, as water and earth, *psychē* also refers to an elemental mass outside human beings.

It could be objected that B36 describes the generation of *psychē* from water in the exact same way as it describes the generation of water from earth, suggesting that the three mass terms refer to entities in the same ontological category. This means that the thought that *psychē* could be one of the elements is not entirely implausible. In this case *psychē* will have a massive presence in the cosmos, and this presence will also involve the presence of the *psychē*'s functions not only in human beings, but possibly also in other beings, and perhaps even in the cosmos as a whole.

It has to be pointed out that, for a number of reasons, *psychē* would not fit in easily with the other elements. First, the kind of functions *psychē* is described as fulfilling in us seem to be of a quite different kind than the essential characteristics of the other elements, the crucial difference being that the properties of the elements all belong with what we think of as passive, material properties: they describe how the elements behave when acted on, whereas the characteristics of the *psychē* are all active, functional properties: they describe the characteristic effect exerted by *psychē* on its environment. In other words, when we describe water as the kind of thing that is wet and *psychē* as the kind of thing that understands and controls, it seems that these two characterisations describe different kinds of properties. Second, it follows from this that, unlike the other elements, *psychē* would have two different kinds of properties: physical and mental, and these, no matter how strong a correlation we suppose between them, cannot be identified, neither one reduced to the other. Third, by functioning *also* as a mass term, *psychē* would be the only one of its kind, for it is characteristic of all the other mass terms that they refer *only* to kinds

of stuff, but Heraclitus – both in B36 and in other fragments such as B107 and B117 – uses *psychē* as a count noun, therefore, if we are to claim that he uses it as a mass term, we are forced to claim – as Betegh does – that he uses it *also* as a mass term.

Nevertheless, if we are to suppose that *psychē* is one of the elements, it seems reasonable to take our clue from the configurations and characteristics of the other elements. Water is a moist, supple, dynamic kind of thing, and, as one of the major and fundamental constituents of the world, makes up for an important portion of our body and has a massive presence in the world in the form of coherent, largely continuous and homogeneous lumps of varying size – ponds, creeks, rivers, lakes, seas etc. So if *psychē* is another one of the major and fundamental constituents of the world, is the kind of thing that exerts control and understanding, which is present in human beings, and is responsible for these functions in us, it naturally follows that *psychē* must also have its coherent, largely continuous and homogeneous cosmic lumps.

Another characteristic of the elemental masses is that, independent of their size and location, they exhibit the same essential properties: a glass of water is just as moist as a lake, and a pebble is just as solid as a rock, allowing of course that their size and purity determines the degree to which they exhibit these essential properties, and what other, non-essential properties they possess. If *psychē* is an element, then this must also be true of *psychē*. Just as there are small marshlands and vast deserts, there will also be small, moist patches as well as great, dry masses of *psychē* in the cosmos, the former having fairly little understanding of and control over its surroundings, while the latter possessing almost perfect knowledge and mastery of the world.

It is traditionally supposed that beings with varying degrees of intelligence – gods, demons, humans, animals – abound in the cosmos. It is tempting to suppose, then, that these lumps of *psychē* of different size and purity are the entities responsible for the mental functions of these beings. The *psychēs* of the gods, then, would be more fiery, and perhaps also greater in size, and the smaller and wetter the given lump of *psychē*, the more feeble its powers of understanding

and control would be. Heraclitus' innovation, then, would be that the differences in intellectual and physical power, life-span and other things between the different forms of intelligent beings in the traditional world view would be explained by the differences in physical characteristics between the lumps of *psychē* responsible for these functions.

The existence of such beings is admittedly easier to reconcile with traditional, religious views about the cosmos than with the general attitude towards the divine in the early philosophical accounts of the cosmos.³⁸ In order, then, to ascribe this view to Heraclitus, we would have to suppose that he preserved more from the traditional picture about the divine than other early philosophers.

While it is not entirely implausible, the problem with this account is that it only increases the population of *psychēs* in the cosmos, but it does not diversify it. Instead of re-positioning *psychē* in the Heraclitean cosmos by re-interpreting the kind of being it is, it preserves the old, individualistic view of *psychēs*: it allows for qualitative differences between different *psychēs*, but it preserves the traditional view that *psychēs* exist only as individuals, and so individuality is one of their essential properties. Therefore, such a conceptualisation of cosmic *psychē* would be alien also to the original motive of Betegh's interpretation. His claim that *psychē* could be understood as a mass term was to show that *psychē* is a kind of stuff, and thus, individuality is not one of its essential properties.

However, given Heraclitus' insistence on the unity of the world and his association of the world with divinity (B67), it seems more likely that, if the orderly character of cosmic processes were to be delegated to the effect of a constituent of the cosmos, this constituent would have to be one single entity, and Heraclitus, then, would have denied the existence of a plurality of gods.

³⁸ -> Xenophanes: one god, not many; not at all like us..

Furthermore, from B78 we learn that “human nature has no set purpose, but the divine has.”, while B85 tells us that: “It is hard to fight against passion; for whatever it wants it buys at the expense of *psychē*.” It is reasonable to suppose that this “loss of *psychē*” translates into the moist-imperfect state of the psyche, and so it is associated with passion, which in turn is intertwined with individual needs and cravings. Thus it would be the lumps of *psychē* with less purity/more moisture that have more autonomy – so, if we apply B78 strictly, they couldn’t be divine, for autonomy and individual goals are incompatible with the set purpose of the divine nature.

PSYCHE AS EXHALATION

Others have argued that the description of *psychē* in B36 as generating from water and the claim in B118 that our *psychē* can get wet are incompatible with a *psychē* that is essentially and exclusively fire or fiery.

The debate between the two sides revolves around one single problem: How can we make of the concept wet fire, and what does it mean for fire to get wet? Schofield argues that since the fundamental nature of *psychē* is fire, we have to suppose that when Heraclitus describes it as wet, what he has in mind is that a portion of fire is extinguished, and so the impaired functionality of the *psychē* described in the fragment is in fact due not to the alteration of its physical properties, but to the intrusion of a stuff whose essential property is opposite to its own, and therefore it causes its partial extinguishing. Betegh argues against Schofield by pointing out that in both fragments where Heraclitus draws a connection between the quality of *psychē* and its physical characteristics, the connection is drawn directly between the physical properties – i.e. its being wet or dry – and its quality, and no mention is made – neither in these fragments, and indeed nowhere else in the surviving fragments – of the size of *psychē*, let alone its effect on the quality of the *psychē*. These considerations, then, make it clear that the essential physical nature of

psychē can only be associated with an element that has the ability to instantiate both the physical properties ascribed to *psychē* in the fragments: wetness just as much as dryness. He concludes that the best candidate is *anathumiasis*, or exhalation, for it, just like *psychē* in B36, rises up from moisture, and it is both dry and wet: the low evaporations close to the surface of waters is wet, while once it rises up, it becomes dry, and comes to occupy just the region where the entities that exercise cosmic governance are. Betegh argues that it is not only the case that *psychē* is exhalation, but in fact, cosmic *psychē*, as a single, continuous entity, spans the entire region from the moist exhalation on the surface of waters to the dry exhalation of the highest, aetherial region.

The crucial difference between the positions stems from whether or not the interpreters regard wetness as a property of *psychē*. Schofield's interpretation presupposes that, since fire is essentially dry, moisture is alien to its nature, and so its fundamental physical nature doesn't have to admit this property. Betegh, on the other hand, argues that it belongs to the *psychē* to be wet, and therefore, the fundamental physical nature of the *psychē* has to be such as to be able to accommodate moisture. On Schofield's view, *psychē* is essentially fire, and its "getting wet" is due only to its presence in an imperfect bearer, the human being. Therefore, it is not problematic for him to identify aetherial fire as the cosmic counterpart of the human *psychē*, and this also explains why he sees no reason to call it *psychē*: on this view, by doing so he would attach the name of the inferior, impure fraction to the superior, pure whole. Similarly, it follows from Betegh's interpretation that being wet is not only characteristic of *psychē* because it is an imperfect fraction of a perfect, but this property belongs to the kind of thing *psychē* is, and so it belongs not only to the human *psychē*, but also to its cosmic counterpart.

It is important to point out that this claim is not a necessary consequence of the claim that *psychē* can function as a mass term. One could suppose just as well that *psychē* is a mass term, but it refers only to the dry, fiery kind of stuff that is the substantial basis of the cosmic

governors, and the regions between water and the driest, purest form of fire are occupied by another elemental mass, probably air, or indeed exhalation.

If we accept Betegh's suggestion that the nature of *psychē* as exhalation is useful because it allows it to assume opposite physical characteristics – which we have good reason to do – then, although it is useful for explaining how the cognitive abilities of humans – while varying between different people, and often changing over time for one and the same person – can be ascribed to the physical characteristics of one and the same entity inside them, viz. their *psychēs*, at the same time it creates a problem for the cosmic *psychē*, for while individual *psychēs* assume the opposing physical characteristics at different points in time, as occupying the entire region from the moist evaporations adjacent with the waters all the way up to the driest evaporations in the highest stratum of the cosmos, the cosmic *psychē* would have to do so at the same time, and so its physical constitution should be heterogeneous. It is difficult to imagine that this would have been Heraclitus' position, for God is characterised almost universally by other philosophers of this period in absolute terms: examples. Indeed, one of the most popular arguments about the traditional, anthropomorphic conception of the divine was that its eternity and perfection makes it incommensurable with humans.³⁹ Although he makes no direct statement to this effect, several of Heraclitus' surviving fragments are clearly pointing in this direction.⁴⁰

This aspect of *psychē*'s nature seems to call into question Betegh's assertion that "the cosmic mass of *psychē* (or mind) can be assigned cosmological roles because it can also be described as the greatest individuated portion of *psychē*, or mind, stuff."

If we follow Betegh in supposing that the cosmic mass of *psychē* is one continuous whole, then we also have to accept that, since it spans the entire region between the moist regions on earth all the way up to the aetherial fire of the highest regions of the sky, it also spans the

³⁹ -> examples

⁴⁰ Cf. the description of "the god" as absolute unity in B67; the incommensurability of the human and the divine nature in B102, B70, B79, B82-3

continuum of physical properties ranging from the most vapours on the surface of waters up until the driest, purest form of aetherial flame. Betegh accepts is, and argues that it is precisely this characteristic of *anathumiasis* that makes it more suitable a candidate for *psychē* than any of the other elements, for it means that, of all the elements, *anathumiasis* is the most apt to accommodate Heraclitus' description of *psychē* as in some cases dry, and in other cases moist. When extended to the cosmic mass of *psychē*, however, the same characteristic that proved useful in the case of individual *psychēs* becomes problematic. For if there is one, unitary world, and all of its parts, aspects and processes are subject to one and the same governing principle, the cosmic mass of *psychē*, then it seems reasonable to suppose that this entity would be the most excellent of its kind: in the case of *psychēs*, this would mean that it would be fiery all over, with no hint of moisture. The cosmic mass of *psychē*, however, if indeed it is *anathumiasis*, would not only not be entirely and purely fiery, but in fact, it would have to possess all the physical properties from the moist to the driest, and possess them permanently.

this mass of *psychē* is supposed to exhibit these different characteristics not diachronically, as humans do, in correlation with our changing mental properties, but synchronically. (A further complication is that, depending on how we interpret B31, it could turn out that cosmic control itself is best seen as oscillating in intensity.)

It would be hard to make sense of such a position, especially in light of Heraclitus' statements about the incommensurability of the divine and human natures, as well as the well-attested, general tendency of Heraclitus' time, to characterise the divine in absolute terms.⁴¹

For while our individual *psychēs* are sometimes said to function wrong on account of their being wet, a physical state most probably thought to pass as the effect of alcohol does, so that our *psychēs* become drier again, this is clearly not the case when it comes to the cosmos, and for two

⁴¹ -> Xenophanes, Anaxagoras

main reasons. First, because if the cosmic *psychē* is responsible, in one way or another, for ordering the cosmos, for upholding or instantiating the eternal, all-encompassing *logos*, then it is hard to imagine that this *psychē* would ever change, let alone change in its fundamental characteristics. Second, because, if the cosmic *psychē* is, as Betegh proposes ‘the continuum of *anathumiasis* extending from the moist air on the surface of waters to the dry a in the highest stratum of the cosmos, then it seems like we have to either think of the cosmic *psychē* as having opposite physical characteristics (i.e. moisture and dryness) in its different parts, or as made up from distinct parts with different physical characteristics, allowing that there could be communication between these parts, e.g. the dry, upper stratum would most probably come from the lower, moist evaporation through rarefaction.

Regardless of which of these two options we choose to follow, this adds a further layer of difficulty to the already complicated issue of how, if we are to suppose that the cosmic mass of *psychē* is an active, regulative, cosmic principle for Heraclitus, we should imagine that it plays this role of regulation.

COSMIC *PSYCHĒ* AND COSMIC ORDER

COSMIC *PSYCHE* AND THE LOGOS

I have argued that if we regard *psychē* in B36 as a mass term, we also have to suppose that a mass of *psychē* will be present in the cosmos, and this mass of *psychē* will exercise its functions even when it is outside human beings, thus it will most likely be associated with the fiery governing entities of the world. One might wonder if a more detailed account of the form this association couldn't be reconstructed.

It could be objected that this question is inadequate, and we cannot expect a meaningful answer from Heraclitus. It could indeed turn out to be the case that Heraclitus' views about the cosmos did not extend to covering this aspect of its nature. One thing that can clearly not be said, however, is that the reason for this would be that the question is anachronistic, because such questions simply did not concern these first philosophers, and so we cannot expect that they would concern Heraclitus. Our information about the Presocratic philosophers clearly show that this is not the case. As it turns out, some form of answer to this question can be found in nearly all the Presocratic cosmologies. Thus, our testimonia about Anaximander tell us that his *Apeiron* is both the beginning and end of all existence,⁴² as well as what governs them⁴³, from the outside, most probably. In one of Xenophanes' fragments we read that God exerts his control over the cosmos by "shaking all things" through the effortless power of his thought.⁴⁴ Similarly we are told that Anaximenes thought of his *Air* as playing a role in the cosmos analogous to the one played by the *psychē* in human beings.⁴⁵ It seems clear, then, that, although it might not be as

⁴² "(...) from this all things come to be and into this all things perish" "->Greek" A14: Aetius P. 1.3.3./S.1.10.12., Graham, p. 56-57

⁴³ "(...) this seems to be a source of everything else and to **contain all things and steer all things** (...)" "->Greek" A15 (B3), Graham, p. 54-55

⁴⁴ "But without any toil he shakes all things by the thought of his mind" "->Greek" B25, Graham, p. 110-111

⁴⁵ "As our *psychē*, (...) which is air, controls us, so do *pneuma* and air encompass the whole cosmos."

detailed and accurate as we would like it to be, these fragments provide a more or less firm ground for legitimate extrapolation about these different conceptions of cosmic intelligence.

The first question to ask in any such case is how the given philosopher thinks about order and control in the world. When it comes to Heraclitus, this question is both easy and difficult to answer. It is easy, because, as I have argued above, several fragments show that he thought of the world as one strictly unitary system, and connected this orderly character to the Logos. On the other hand, the Logos is ever-elusive and hard to pin down.

One could suppose that, as the kind of being that is responsible for control, and, residing in the aetherial regions of the world, being the most excellent of this kind, the rule of Logos in the world comes about as a result of the activity of the cosmic *psychē*. If, however, Logos is indeed the “hidden attunement” of B54, and the fixed measure of cyclical transformations in B30, which ensures that the ephemeral opposites come together into the ultimate unity of all things, then *psychē*, as one of the constituents of the world, with its own assigned place in it, which has physical properties and is subject to a regular cycle of transformations, necessarily stands below the omnipresent Logos, especially because the very own generation and destruction of *psychē* is also a piece in the cosmic puzzle, whose pieces fit together on account of the universal binding force of the Logos.

PSYCHĒ AS COSMIC HELMSMAN

If not the principle behind the Logos, the activity of the cosmic *psychē* is perhaps best approached through the wording of B64: “The thunderbolt pilots all things.”⁴⁶ Kahn’s translation is a loyal rendering of the original Greek, for the word translated here as “pilots”, *oiakizein*, is indeed not just a general term for control, but contains the word “ὄαξ”, or rudder,

⁴⁶ Translation from Kahn, “Art and Thought,” 83.

showing the origin of the term in sailing. Perhaps we can speculate that the choice of the word is intentional, and it is meant to reflect control through some means, as opposed to inherence. Support could be drawn for this interpretation from the analogy with the human *psychē*. Although the view that the *psychē* is spread all across the human body became a prevalent one later,⁴⁷ the prevalent conception of *psychē* in Heraclitus' time was most likely not much changed from that of the one we find in the Homeric myths. There it is a general characteristic of mental functions to be assigned to a specific place in the body, such as the heart or the chest. If this is right, then perhaps we can conclude that *psychē* in Heraclitus will also be located in one specific place in the body.

⁴⁷ Cf. The *Phaedo*, where the good life advocated by Socrates, the one where we strive for our *psychē* to be "alone by itself" involves 'collecting the *psychē* together from the different body parts'. It is worth noting that, although the *psychē* may be supposed to be spread out across the entire body, even here it seems to be implied that it has its own, original place, where it ought to withdraw to according to Socrates. (+citation)

CONCLUSION

Regardless of how we choose to cash out on the implications of this interpretation for the specific characteristics of the cosmic mass of *psychē*, reading “*psychē*” not only as a count noun, but also as a mass term has significant reverberations for how we see Heraclitus’ cosmology, and shows it as a peculiar and unique episode in the history of the concept of cosmic intelligence. Furthermore, it remarkably also means that it is in Heraclitus that the concept of a world *psychē* appears for the first time as a component, and indeed one of the key components of a complex philosophical account about the world, conceptualised as a cosmos, i.e. an integrated whole whose general structure and workings are due to a relatively small number of basic properties, relations and laws.

If the cosmic *psychē* is a continuous, functionally coherent whole, then perhaps it is a good candidate to be the entity in which the Logos is instantiated primarily, and through which it is transmitted to the other parts of the cosmos. We would have every reason to call this cosmic mass of *psychē* a world *psychē*, and conclude that Heraclitus was the first to present this concept in a philosophical cosmology. This cosmic *psychē* would be significantly different from the other occurrences of the concept in later texts. First, unlike Plato’s world *psychē*, it does not pervade the entire cosmos. Instead, it is present only in a definite region of it, namely the one that is not occupied by the other two elements, water and earth. Second, it is heterogeneous, which is of special significance in Heraclitus’ cosmos, for it means that the cosmic *psychē* is not of purely superlative quality. Third, if we are to suppose that the two ends of the fragment are in some way connected, which, as I argued above, we have reason to do, then the cosmic *psychē* also takes part in the cycle of the elements, and it is thus part of the regular cycle of the natural world. On the one hand, given Heraclitus’ analogy between the human and the cosmos – unusually strong even for an early natural philosopher – it shouldn’t be surprising that if human *psychēs* enter into the

cycle – something B36 leaves no doubt about – then the *psychē* of the cosmos should do the same. On the other hand, however, it is rather difficult to imagine that what is, in some sense at least, responsible for the orderly workings of the entire world should be subject to perpetual transformation, perhaps even more so than *ekpyrosis*, or the view that the entire world should be swallowed regularly by its dominant force, fire, only to be reproduced by the same principle in essentially the same way again.

If the cosmic mass of *psychē* does not form one coherent entity, but refers merely to the multitude of the cosmic lumps of *psychē*, then we would have to see Heraclitus as keeping to the tradition of polytheism. In this case, the different lumps of *psychē* would all form part of the greater unity of the cosmos, and would be subject to the universal Logos, but not on a par with it.

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