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From Natural Tendencies to Perceptual Interests and Motivation in Plato’s *Timaeus*

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Abstract: In the *Timaeus*, human bodies are treated as homeostatic systems, striving to maintain their natural state. This striving constitutes Plato’s explanatory framework for perception: perceptions come about when the equilibrium is shaken, and when it is restored. The article makes two main suggestions: first, that experienced pleasure and pain are grounded in non-experiential departures from and restorations of the natural state. Second, that the striving to maintain the natural state grounds perceptual interests, especially through conscious algesic and hedonic affection. Explanation of what humans find desirable and avoidable in their environment – what they attend to – is a complicated story that in the context of the *Timaeus* must include the role of human rational abilities. This article, however, only sheds light on its other, very basic aspect: the teleology involved in bodies and how it affects perceptual interests.

Keywords: *Timaeus*, Plato, perception, perceptual interests, pleasure, pain, natural state.

This article seeks to reveal one possible ground for directing attention in Plato’s *Timaeus*: non-rational perceptual interests. Plato usually discusses affects and appetites in the context of the tripartite soul. The *Timaeus* follows this model but provides an additional theory which is the focus of this article: a theory of the rudiments of appetites in perception. These origins are to be found in the way pleasure and pain arise from perceptions and from the general teleological framework of human bodies. In the following, the emphasis will be on perceptual attention, that is, on what determines which things in the perceptual field human beings allocate attention to. In Plato, this specific question may not be devoted much space but it is significant as a ground for attention, that is, to Plato’s often

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expressed, explicit worry about which things people consider worthy of reaching out for and grasping in their environment.¹

The argument proceeds in the following main steps.

In Section 1, I discuss the theory of vision in *Theaetetus* 152e and *Timaeus* 45b–c that could provide a foundation for a theory of perceptual attention. On these two occasions, Plato suggests that a token perception of vision consists of two movements instead of one: one originating from the thing seen, another from the seer. This physiological theory, while telling us little about selectiveness, does seem to underline the role of the perceiver as active rather than purely receptive. The evidence for the claim that this activity would be motivated by reasons that have to do with attention-guidance, however, is at best inconclusive.

In Section 2, I turn to another promising model in the *Timaeus*. On this model, perceptual attention can be oriented by pleasure and pain and by an underlying teleological structure. Perception is explained as an awareness or a grasp essentially connected to the way in which the living being struggles to maintain its natural bodily state. Perceptions are disturbances of the body. Sense-qualities, such as sweet or hot are, in turn, considered as instances of this model. Of the disturbances, restorations to the natural state are experienced as pleasurable, deviations from it as painful. Therefore, it is not implausible to think that the regulation of what the human being seeks or seeks to avoid in her environment could partly be explained through the explanatory framework of its inclination toward the natural bodily state.

In Section 3, I show that different sense-modalities both illustrate and problematise the general framework of disturbances. This part also introduces an important division, namely that between conscious pleasurable and painful experiences connected to restorations and destructions on the one hand, and perceptions without the experience of pleasure or pain on the other. In the *Timaeus*, as we will see, the motions that cause perceptions essentially contain the determinants for becoming either hedonic or algesic affections (that is, for being perceived either as pleasant or as painful). This raises the question of whether what we feel drawn towards must originate in conscious pleasure and pain, or whether in some cases it could attract us through the disturbances and the inclinations for the natural state of the body, even without perceived affections.

¹ A full-fledged theory of perceptual attention in Plato would have to include an account of the way in which reason determines some of our perceptual interests (in the case of the *Timaeus*, the role of the circles of the same and the different in 39a-c that mediate between the intelligible and the sensible, and the question of how reason permeates or operates on perceptions) and of which type of rational and voluntary attending can we find and how it operates. While some points of contact with our theme will be brought up below, they call for a study of their own.
A further complication is due to the fact that some sense-modalities lack pleasure and pain, or at any rate typically function without the latter. In the case of vision, it does not seem to be true that the living thing would experience much or, arguably, any pain. It has been suggested that vision, perhaps together with hearing, is a special case among sense-modalities (what I will call ‘Platonic disjunctivism’). I will argue that, some particularities of vision (and of hearing) notwithstanding, for perceptual interests and motivating actions, the crucial division is not between different sense-modalities but between two sets of desires. The first desire is the strive towards bodily pleasures operative through the model of disturbances introduced, the second is the rational soul’s desire for wisdom. The space devoted to arguing against the disjunctive view of the sense-modalities in Plato grounds my reading in which a shared teleological-physical framework underpins all perception and thereby also motivation for action.

In Section 4, I conclude that for appetitive, non-rational desires, there are two subsystems of natural inclinations, which are, however, parts of one and the same supersystem. Conscious pain and pleasure can be used to explain perceptual interests but are themselves part of a more fundamental teleological-physical explanation which includes cases in which the hedonic and algesic affection is lacking. Pleasure and pain are intensifications of a more fundamental directionality towards the realisation of a natural state. Having established a teleological-physical ground for affective perceptions, some preliminary ways in which this ground comes, as it were, to be operative on the level of agents and their motivations must be outlined.

While Plato’s discussion does not go into the details of selective attention, it does yield a foundation for an account of appetitive perceptual interests.

## 1 Activity in perception

For the ancient theories of perception, the physiological aspect – how the perceived object’s perceptible qualities travel to the sense-organ and what happens in the sense-organ – is a matter of great interest. Typically, reception functions
as the main explanatory tool. The organ of perception receives either the pure form of the object or its formation in some kind of matter. If the physical process happens without interference, reception safeguards the veridicality of the perception.

In his account of sight, Plato famously presents an alternative view, according to which a ray of fire extends outward from the eye and makes contact with the fire emitted from the object somewhere in between the object and the perceiver. In the *Theaetetus* (152E), this so-called extramission theory of vision can be interpreted either as Plato’s own view on perception (or at the very least on the visual sense modality) or as a theory put forward as part of the *ad hominem* strategy against Protagoras’ relativism. On either reading, the philosophical upshot is clear: token perceptions have no shared elements with other token perceptions and thus no fixed – and thereby no reliable – nature. This is due to the fact that their metaphysical basis is merely a token encounter between two things – these two things being neither the subject nor the object of perception, but rather the effluences or projectiles originating from them. Here, the extramission theory is also epistemologically motivated, but rather than explaining the possibility of perceptual knowledge that would be shared, it leads to a relativist theory of truth.

A similar account appears in the *Timaeus* (45B–c), in a context in which there is less of a reason to think that Plato would not have been committed to the theory. The main elements of the account are the same: the ray of fire – a visual body – stretching out from the eye encounters the fire emitted from the object. However, in the *Timaeus*, the notion that this would mean that perceptions do not capture any stable, objective features of the world is absent. On the contrary, it seems that a geometrical science penetrates all encounters between different kinds of bodies and their particles. In the case of vision, an objective science of the encounter between the two different fires encountering one another is at least theoretically available. Perception in the *Timaeus*, after all, is a kind of measuring operation: a cognizance of the changes that bodies made up of elements, consisting of geometrical particles, effect and undergo.

Scholarly interpretations have differed as to what the motivations for this kind of interactive theory could be, and whether it has anything to do with

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4 It might even be that these encounters are not repeatable, given the possibility of change in the circumstances of the encounter.
5 This translation by Katerina Ierodiakonou fittingly captures the Greek word *sōma*. Ierodiakonou (2005), p. 221.
6 For perception as a measuring operation, see Brisson 1999. For the relationship of mathematics and astronomy with perception and natural science in the *Timaeus*, see Johansen (2004), ch. 8.
endogenous attending, i.e. the idea that it is not the external object that attracts attention, but that something in the perceiver determines what is salient in the visual field. The outward extension of our bodily organs, the eyes, could be a vehicle that enables the eyes to direct our gaze according to our interests. In the *Timaeus*, the ray or body of fire is said to have a direction (*euthuôría*), and this direction is “according to the eyes” (*kata tôn ommatôn*, 45c5). Further, in the *Timaeus*, the natural-physical account of the ray of sight, although it does not amount to an explanation of it, nonetheless coheres with the idea of the rational soul having certain innate powers and recognising things in the external world either through or in accordance with those powers, thus being active rather than primarily receptive.8

However tempting an attention-relevant reading might be, in neither passage does the immediate context explicitly suggest that the interactive model would be motivated to deal with the phenomenon of endogenously directed attention. The evidence is inconclusive as to whether the physiological properties of the stream of sight are suggestive of something like attention, and even if it played a role in directing attention, it would only explain the case of sight. Part of the difficulty is likely to arise from the model of explanation. The cognitive and the physiological explanations of perception may seek to answer different questions, both within an explanatory framework of their own. Yet there must be points of contact. One such case is the experience of pain and pleasure, a discussion that also proves to deliver an alternative ground for questions about attention.

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7 E.g. Grönroos (2001), p. 34 translates the lines 45c4–6: ...“is united in one single body in straight course from the eyes; this happens whenever the stream issuing forth from within stands firm against that of the things outside with which it meets”. Grönroos connects this with the idea that daylight makes the stream from the eyes stronger, rather than with any directionality of the eyes as such. I have defended the idea that this short section does involve an interesting and, as regards attention, suggestive claim concerning how the body of fire from the eyes reaches towards the object, thus separating one part of the visual field as the stream within which the perception happens and preventing the internal fire from dispersing in the combination of air and fire (i.e. daylight) surrounding it (Remes 2014).

8 Both Brisson (1999) and Carpenter (2010) take it that some kind of intelligising belongs to the perceptual process, but they leave unclear if and how this is connected to the physiological explanation of the ray of light. Ierodiakonou (2005) defends a view according to which, in the *Timaeus*, colours are objective features of the world: even though they might not “look” like colours without any perceivers, the colour perception rests upon real physical differences in the constitution of the objects, and hence in the constitution of the emitted fire. Thus, we should not, at any rate, take the stream of vision as projecting anything on the world.
2 Teleological underpinnings

According to the *Timaeus*, teleological ordering governs the way in which the cosmos comes to be: everything is designed according to a good model, with a good design, and for a purpose. Gods are made of fire so that they would be “brightest and purest to the eye”, stars come to be because their motions (rotation and revolution) enable the gods who inhabit them an embodied approximation of perfection, and the human head, for example, is given a body for a vehicle (40a8–b3; 69c7–8). Similarly, it is a central part of the explanatory system of the *Timaeus* that the demiurge and the smaller gods to whom he gives specific tasks do not create the good cosmos and its parts in absolute freedom but are constrained by Necessity. This Necessity embodies the physically necessary conditions (*sunaïtiai*) under which the good can be realized (47e4–48a6), and is lower in the hierarchy than the design itself but nonetheless causally effective.9

When Plato explains the human body and its perceptions, both these explanatory principles, Intellect (the principle that explains the design of the cosmos) and Necessity (which explains deviations from design), come into play. Unlike the stars and the cosmos as a whole, the construction of the human body is imperfect. Specifically, it is less unified, and this is relevant to the account of perception: the bonds that bound human bodies together are weaker than the ones the gods have, and thus their bodies are made up of various components (42e9–43a6). In this kind of unity that is made up of parts, something is always moving from one part to another, such as nourishment. This inner motion renders the thing in question volatile and its motions many and disharmonious, again unlike the motions of the stars. Worse still, because the human body is less unified and less solid than would be ideal, every encounter with external bodies – fire, earth, or other elements or their combinations – produces disturbances, disturbances which also shake the orbits of the same and the different of the rational soul (43b5–d2).

Perceptions are the grasp of such disturbances and motions in the body. But they, or at least some of them, are designed for a purpose: sight for perceiving the orderly revolutions of the stars, and thereby for the possibility of imitating their orderliness. Hearing is for the same ultimate purpose, for the reaching of that harmony through rhythm, composition of music, and through the ability to listen to speech (47b–c). Plato seems also to refrain from thinking that having a strong soul, i.e. one that could maximally control the body, would be good in all circumstances. There is individual variation as regards the strength of both bodies and souls, and for a being that is a soul-body composite, harmony between the

9 See e.g. Corcilius (2020).
two is beneficial. If a strong soul is located in a very weak body, the well-being of the whole is in danger since the body may get ill. And an illness, in turn, could prevent the composite from attending and perceiving the external world in appropriate ways. Conversely, if the body is much stronger than the soul, it will cause dullness and forgetfulness of the soul (87d1–88b4). There is, thus, a co-existence of two levels, a level of description of the functionings of perception which depicts them as disturbances, and the level of their uses, ideal and non-ideal, by a rational embodied person. We shall briefly return to this issue later, although the emphasis of the article is on the psycho-physical explanatory level. Let it suffice to note here the way in which the idea of a natural, balanced state is involved, albeit a bit differently, on both levels.

When Timaeus returns to the topic of perception at 64a, perceptions are treated as somatic affections, and more particularly those somatic affections that percipient bodies have. They have, besides a somatic element, a psychic element: perceptions are effects that both reach the soul and of which the person has an awareness or a grasp. Perceptions are further divided into local perceptions that function through specific bodily organs, such as taste and hearing, and pansomatic perceptions that can happen in the whole or larger areas of the body, like the sense of hot and cold. Where the teleological explanation above gave the purpose for which these abilities exist, at the material-physiological level, teleology figures in the appeal to natural states:

Disturbance and restoration to the natural state provide the general framework of all the effects the perceptive bodies have, painful and pleasant perceptions being types of these effects (64A2–B2). Departure, depletion, or alienation (apochoρēsis; kenōsis; apallotrioutē) from the natural state is unnatural and, if intense enough, produces pain, whereas restoring the original state (plērōsis; eis taunon heautois kathistathē) is a move back towards the natural condition and, if intense enough, is experienced as pleasant (64e–B2). Pleasure, then, follows from restoration or bringing back to a state where one naturally “belongs”. Departures and restorations are caused by encounters with external objects. Essentially, they cause two

10 Wolfsdorf (2014), e.g. at pp. 121f.
11 The translations are those of Donald J. Zeyl, at times adjusted.
kinds of evaluative appearances, one of which represents the encounter with the object as good, and the other one as bad.

The somatic contact and motion transmitted are not themselves enough to create the kind of perception that would be properly perceived – i.e. conscious – unless they inform the soul. This, in the human case, involves appearances. The appearance (phantasma) or image (eidola) happens at the next phase, one which is physiologically explained as well. Images form in the liver, a smooth surface in which received imprints turn into kind of pictures (71b2–4). Just how this happens is a complicated issue, and unfortunately, only one case of how the image is originated is explained in some detail. This is a case where the image originates in the rational soul itself, attempting to communicate with the non-rational part of the soul. Roughly, since the non-rational soul parts cannot understand rational exhortation, the gods devised the body with an organ that can turn logoi into pictures to which even non-rational parts of the soul can react (71a3–d4). The liver, then, besides turning the somatic motions into images, provides a place where non-rational and rational aspects of the soul meet. This is important for the philosophical therapy of the soul. Some of these images are evaluative in nature, presenting things as good or bad, and it is on this level that our valuations can be influenced.

This leaves some room to speculate as to what happens in non-rationally originated cases, that is, in the case of appetites. As in the case of rationally induced passions, it seems that appetites must involve the incoming motion that causes the imprint, i.e. the perception of an object, the liver turning it into a cognitive image of the object and sometimes depicting this as something to be pursued or avoided. The question then becomes whether the evaluation already involves rational judgement or not. As scholars have noted, there is a tendency in the Timaeus to deny the appetitive part of the soul beliefs and the ability to grasp logoi (71b; 77b). Its evaluation, then, must be cognitively more primitive than the rational case.

Importantly, in the case of desirable appetitive objects, the origin of the evaluation cannot be in the rational judgement, which leaves two alternatives open. First, it might be found in the image-making power itself, interpreting certain

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12 In my reading, the psycho-physical description of perception ought to work broadly in the same way in the case of plants and animals, and the particularity of human beings be due to the rational soul. An exhaustive treatment of the psychology of plants and animals is however beyond the scope of this paper.

13 For the liver and its role in appetite, see Lorenz 2006, pp. 95–101.

14 Moss (2012), esp. pp. 270–73. Moss defends a view according to which the image-making power renders these images cognitive, though not rational.
things as good and others as bad. Second, it might be that the imprint itself already suggests either a positive or a negative evaluation. Whether the image making power itself by itself can in some cases originate the evaluation is a question I do not see direct evidence for in the *Timaeus*. However, it seems that a typical case must be one in which something about the encounter with the external world, its objects, is directly involved, as suggesting a positive or negative direction (even when the image itself was needed to turn it into a proper evaluation). This seems likely already from Plato’s general dislike of the way in which these brute desires render human beings slaves to their external circumstances. The mechanism can be found in the destructive and restorative encounters between what is emitted from the object and the visual organ, and the motions that these encounters transmit to the soul. The teleological account of perceptions as somatic motions, i.e. disturbances, involves the idea of natural and unnatural directions and thereby suggests determinants for whether the perceived affect will be positively or negatively loaded.

Besides the clear statements about which effects are natural and which deviate from the natural state, it is remarkable that painful and pleasant perceptions are not introduced as different in kind to the affections that are neutral (rather than hedonic or algiesic) but through the idea of gradation. As the above quote says, forceful and intense (*biaion; athroon*) disturbances produce pain and pleasure, while mild and gradual (*erêma; kata smikron*) ones do not.\(^{15}\) Contributing factors, then, are, first, the brute force that encounters the organ of perception – just how warm the water in a Japanese onsen’s hottest pool is. A strong enough effect will travel all the way to the liver, to be turned into an evaluation of the image of the pool as a painfully hot one. A second contributing factor is how sudden the disturbance turns out to be: whether you jump into the hottest pool after the frigidarium or through a round of dips in several pools of gradually hotter temperatures has a significance on how intense the effect becomes. This implies that there seems to be no fixed point at which the object of perception gets perceived as something to be pursued or avoided. Rather, this happens within certain limits relative to the previous states of the body.

\(^{15}\) I take this gradual account also to partially resolve a possible discrepancy in the way in which different passages discuss the relationship between *aisthēsis* on the one hand and pleasure and pain on the other hand. As Wolsdorf (2014), p. 133 points out, it sometimes sounds as if pleasure and pain are features of *aisthēsis* (as in most of the passages discussed in this article), sometimes as occurring after or at any rate being separate from *aisthēsis* (*42a3–b1; 69c3–d6*). He may well have a point in saying that *aisthēsis* is sometimes used narrowly, sometimes broadly. In addition, if Plato here operates with the idea of both gradation and relativity as regards the perceiver’s bodily state, then the relationship cannot rigorously be thought to be one of inclusion/exclusion.
The scale of the gradually diminishing and increasing intensity of disturbance explains well the experience of having perceptions ranging from those that are hedonically and algesically neutral, to those that are mild, all the way to the intensely felt ones. However, it has potential defects when used in a framework in which all affects and perceptions are subsumed under the same class of disturbances (pathê). Namely, it might seem to be natural to think that the same scales of force and intensity should also explain why some disturbances are perceived at all while others are not. If the increase in force and intensity explains both the increase in the likelihood that the perception reaches the soul and the painfulness and pleasantness of the perception, then these cannot come apart. Yet it is the case that vision produces very clear and intense experiences without submitting itself for assessment in accordance with the gradation between hedonic/algesic – hedonically/algesically neutral. When I walk into the pool of warm water that is close to the temperature of my skin, I will know, even with my eyes closed, that I am touching a watery substance. How is this possible if the encounter is neither forceful nor intense? The fact that many perceptions produce cognitive content without hedonic affection is explained by the relative quality of the recipient body: if it is made of matter that is easily moved, the perception will travel effortlessly throughout the body and all the way to the soul (64b6–65b2). This is typical for vision, which is effective in transmitting content or information, typically not experienced as painful or pleasant in the eyes. (We will come back below to the question of how special a case vision is.)

To take stock, the consequences of the teleological treatment of the human body for the theory of perception are the following:
(1) There is a natural state for every living body with specifiable teleological unity.
(2) The restoration of this state is natural, and departure from it unnatural.
(3) Perceptions are explained through this general framework, as disturbances from or back towards the natural state.
(4) Disturbances of the body follow two different scales, one of perceived/conscious and unperceived, and the other that of (perceived/conscious) pleasure and pain. The former depends upon whether the disturbances happen to a recipient that is easily moved or not, the latter on whether they are strong and intense enough. Even weak (and hence neither hedonic nor algesic) disturbances can be transmitted all the way to the whole body, or to the soul if the recipient is easily moved.
(5) For living beings, whether the perception is experienced as positive or as negative depends upon the underlying, physical-teleological determination: restoration that happens on a sufficient level of strength and intensity produces pleasure, and deviation from the natural state produces displeasure/pain.
3 Pleasure and pain in different sense-modalities

The general idea that there is a gradation of perception from pleasant all the way to unpleasant comes through clearly in Plato’s discussion of taste. Some tastes seem to come in pairs, depending upon roughness and smoothness. The external thing tasted causes the tongue to contract or dilate depending upon whether the external matter coming into contact with the tongue is of larger or smaller particles than the tongue itself. Earth-like particles, for example, contract the vessels of the tongue and dry them. This encounter produces a sour taste when rough and a tangy one when less rough. Things that rinse these vessels, in turn, produce either a bitter or a salty taste, depending again upon the level of roughness (65c1–d3).

In principle, all these belong to the unnatural disturbances, but how much discomfort they cause depends upon mediating factors. The smoother ones need not even cause real pain, as in the case of the salty: “They [the salty, moderate rinsings] have none of the harsh bitterness, and we find them rather agreeable.” (65e1–3) The idea presumably is that as part of some food, and thus in moderate amount, salty taste need not be unpleasant or painful to us. Why is it, then, classed among disturbances? In large enough amounts it turns out to be a painful thing: consuming a considerable amount of pure salt is clearly unpleasant. In this respect, salty does not differ from sweet: eating a spoonful of pure sugar does not cause you pain but is pleasant. Salty and sweet, when perceived in an unqualified way, or in large enough proportion, give rise to pain and pleasure, respectively. The latter, restorative group includes fewer sub-types, and to it belong all the tastes that are pleasant in themselves. The name of the group to which these belong is simply “sweet”.

Gustatory sense-qualities, then, are all organised under the main headings of pleasant and painful perceptions. The same applies to odours, even though they differ from many other sense-qualities in not having a nature definite enough to find their place in a proper typology:

Let us draw the only clear distinction we can draw here, that between the pleasant (to hedu) and the painful (to lupêron). The latter of these irritates and violates the whole upper body from the top of the head to the navel, while the former soothes that area and welcomes it back to its natural state. (67a3–5)

In olfactory perception, while delineations are hard to make in a general way, the framework of the violation and restoration of the natural state is nonetheless clearly operative. Here, too, the dichotomy of pleasant and painful phenomenal features of perception follows from this framework.
Of sensory modalities, hearing and vision present less clear-cut examples of disturbances. For sounds, Plato offers different scales – pitch, loudness, smoothness/roughness (67b6–c2). He does not, however, give us a detailed picture of whether and how these fit into the framework of disturbances. In vision, the elemental physiology itself does seem to be shared with other perceptions, and what happens to the ray of sight is similar to what happens in perception of hot and cold (which is a “cousin to it”, as Plato puts it at 67d), or with the contractions and dilations of the tongue. They are, as Plato says, “really the same as these other properties, although they belong to different classes, which is why they present a different appearance” (67e). But earlier he has stated:

The cuttings, the burnings, and whatever else it [i.e. the ray of vision] undergoes don’t cause any pains in it, nor does the return to its former state yield any pleasure. Its perceptions are the greater and clearer (megistai de aisthêseis kai saphestatai) the more it is affected and the greater amount of things it encounters and makes contact with, for there is absolutely no violence involved when it is dispersed (diakrisis) [by cutting and burning] and reconstituted (sunkrisis) ... (64d8–e5).

According to the quote, pain and pleasure seem to be completely eliminated from vision. Does this mean that vision actually functions in a way entirely different from other sense-modalities? As scholars have noted, vision seems to provide an exception to the framework, and hence a potential problem for a unified theory. Emily Fletcher has pointed out, that the description of the way in which the two rays of fire, from the perceived and from the perceiver, encounter one another involves likeness or homogeneity rather than the conflict of large bodies (of earth and water) that do not easily “fit” with each other. According to her, there is a distinctive encounter here, one where, as Plato puts it, “like makes contact with like” (45c2–3), which enables the transmission of the movements of the external objects to the soul, and the production of representations.16

While I am generally sympathetic to the idea that, in producing representations, something over and above the involuntary mechanisms of dispersion and restoration must be taking place, and agree that the references to the role of likeness must convey some particularity of this encounter, I am less convinced that production of sense-qualities within the visual modality and those of other modalities that involve pain and pleasure would happen through two physiological systems independent from one another.17 There is no denying that Plato

17 There is a real issue that I think Fletcher’s reading is able to solve. As Johansen (2004), p. 168 notes, there is no textual evidence for (nor against) the claim that the disturbances model of per-
accords vision a special place: it is involved in the formation of the concepts of
time and number, as well as being the vehicle in the philosophical therapy of
calming the soul, through conveying to the soul the perfectness of the circular
motions of the stars. Vision seems to act in a closer co-operation with the concep-
tual-intellectual cognitive powers than the other modalities, and reason’s power
to direct and redirect our attention in our perceptual field must be able to work
apart from the kind of brute desiring and avoidance discussed here. However,
one should saddle Plato with a theory in which vision works fundamentally dif-
ferently from other sense modalities only as a last resort. Disjunctive theories
go against the ideal simplicity of a good theory and must therefore be extremely
well-motivated.

Importantly, there is textual evidence that emphasises the continuity and
shared foundation of all sense-modalities. As regards the physical explanation,
even if those elements emitted from the object and those from the eye are the
same, both being fires, the explanation, in the end, utilizes unlikeness rather
than likeness. There exist different kinds of fire, and the constitution of the fire
coming from sense organs is, in the usual case, not the same as that coming from
the objects. This is crucial for the explanation of vision since the theory rests on
the idea of recognition of difference: if the streams are exactly alike, there is no
perception of colour (the perception is of the “transparent”; 67D1–E6).18 While

18 Ierodiakonou (2005), pp. 224–25. Fletcher (2016) recognises this feature but argues that the
absence of pleasure and pain in this case testifies that dispersion and restoration do not here
affect the natural state — what she calls the mean-state — of the organism. Rather, sight and
hearing work in another way, through like-to-like operation that does not involve divergence
from the natural state, and hence no pleasure and pain. My interpretation differs by taking all
perceptions — even sight and hearing — to be cases of disturbances. Not all of them produce pain
the differences between the stream coming from the object and the visual body reaching out from the perceiver are smaller than in the case of other sense-modalities, perception of a sense-quality nonetheless rests on an encounter that involves a difference. Even more pertinently for the question of natural tendencies, the overall framework of dissolving and resuming some original state is also at work in vision. Perceiving colours happens without pain and pleasure but not outside the system of dispersion and compaction:¹⁹ “white disperses the ray of sight and black is what does the opposite” (67ε). Perhaps a less violent and more likeness-based encounter is better for the explanation of the transmission of the non-hedonic movements, and particularly for the production of representations. Hence it would be a somewhat special case among these encounters. However, the same kind of physical base involving disturbances is at work even in this modality. As Mark Eli Kalderon points out, the general principle at work is that like does not affect like (57α3–5).²⁰

Moreover, on closer inspection, it is not even the case that all cases of vision would be without pain or pleasure. Apart from the testimony of the Timaeus, one could think for example of the Republic passage that discusses Leontius’ looking at corpses (439ε–440α). On the mainstream interpretation, this passage presents a case of perceptual pleasure, and the inclination to pursue such a desire, which is abhorrent to spirit and reason.²¹ In the Timaeus, there is an interesting passage on pain, in which the encounter does not seem unproblematic, as it would be between two homogeneous materials. The vocabulary of forcing appears once when Timaeus depicts the way in which the external fire penetrates the ray of vision (68α). Having introduced black and white, and before going through other colours, he explains what happens when people perceive bright or brilliant. In that case, the fire forcing itself upon the ray of vision reaches all the way to the eye and two things happen: the “turmoil gives rise to colours of every hue”, and the pouncing fire “discharges from those passages [within the eyeball] a glob of fire and water which we call tear” (ll. 2–3).

¹⁹ These are the translations of diakrisis and sugkrisis by Mark Eli Kalderon (unpublished), who also treats them as fundamental operations creating vision.
²⁰ Kalderon (unpublished).
Imagine looking at the sun, or some other bright light too strong or too close; or coming to the bright sunlight from a dark room (or why not a cave). You are first dazzled for a moment, and then, when closing your eyes again to protect them from the light, you see a turmoil of colours, different hues and lights even where there previously were none in your perceptual field, changing in rapid succession rather than having a permanent nature. Maybe your eyes get watery as a result, too. This perception, the perception of “dazzling” or “seeing sparks” (marmarugas), differs through its lack of order and permanence from other colour perceptions. Further, it might be argued that it is not entirely neutral on the scale of painful and pleasant. Most people, at any rate, try to avoid these experiences and rub their eyes when having one.

We need to take, then, Timaeus’ above statement concerning the painlessness of vision to be about the normal cases of vision, perhaps especially the cases in which only the ray of vision itself is affected. That ray is ultimately suited to contraction and dispersion, and of material that is easily moved, and is thus naturally prone to transmitting the contractions and dispersions and the motions that they carry to the soul, without producing pleasures or pains. As a result, the spectrum of colours does not follow the scale of pleasant and painful.

However, even seeing involves a special case in which unpleasant perception is produced, that of extreme brightness. For that, too, there is a physical explanation: it happens when the severing fire penetrates all the way to the eye itself that is not constituted of pure fire.²² Hence the resulting encounter is violent. The defender of the theory that treats hearing and sight as essentially different from other sense modalities might well retort that this special case in which the eyeball is involved proves nothing about normal cases of colour vision. Agreed, vision does not typically involve pleasure or pain. Yet there are limits as to how different a case we can take it to be: its foundation lies within the models of dispersion and reconstruction of the physical state of the ray, and in certain circumstances — though admittedly much less often than in the case of other sense-modalities — these dispersions cause pain.

²²Kalderon further suggests that the difference in the perception of brightness has to do with the size of the tetrahedra in question, thus firmly subsuming this case, too, under the same model of dispersion and compaction.
4 From affective inflection to perceptual interests

We have established above that perception is typically affectively inflected: many perceptions – and types of perception – come with either pleasant feelings of returning to the natural state, or discomfort connected to its destruction. This is true especially with perceptions of hot and cold, of smell, taste and touch, while vision, and some cases of hearing, is not typically hedonic or algesic. While the details of this theory may be in dispute, there is a broad scholarly consensus on the essential connection between perception and affection.

Can we infer from this model that there are perceptual interests, i.e. that perception in the *Timaeus* would involve an affective sense of the future rewards and harms that are produced by encounters with one’s environment? The claim that perception typically comes with pain or pleasure is separate from the claim that the perceiver actively seeks pleasurable perceptions and shuns painful ones. The naturalised account of encounters that produce contractions and dilations could be based on automaticity. It could function as for example digestion does, dependent upon what it encounters from without, not in itself seeking anything. What kind of evidence could one produce for the idea that the account of disturbances also explains what the living thing comes to consider beneficial and harmful for itself, and thus pursues and avoids accordingly? It would obviously be best if we could point to a passage that made this point explicitly. The second-best would be to give circumstantial evidence, that is, to maintain, for example, that other parts of the theory work better if we assume the latter point. We can appeal to the principle of charity by saying that such a position would be a good, rational position to take. Let us try these strategies in turn, in reverse order.

Working with the theory of there being a natural state for the body to be, and the idea of perceptions being divided into those that restore it and those that destruct it, it would seem rather odd if it was not at the same time a theory that explains the natural organisms’ inclination for securing certain kinds of perceptions and the avoidance of others. While a theory that makes Timaean perceptions passive, in the sense of having no role in action-guidance, is possible, it is hard to see how it would be motivated. It would make the mortal soul a passive entity at the mercy of the things that it encounters in its environment, without a principle of motion or the proper use of such a principle, from within. True enough, Plato sometimes (e.g. at 43a7) speaks as if this indeed was the human condition, but he also depicts this soul as very much active: as one source of violent desires. In fact, it is these kinds of behavioural problems by which Plato is often motivated. While thinking about experiential or phenomenal features of perceptions for their own sake may be interesting, this is hardly Plato’s focus. Particularly in the teleologically organised cosmos of the *Timaeus*, every natural
explanation is there to explain how the good is realised in the cosmos and what the most serious challenges are for its realisation.

In so far as more explicit evidence can be provided, there are two relevant discussions on different levels and a question of their relationship. First, I will argue that the tendency to return to the natural state is not merely passive. One can argue, based at least on one interesting passage, that the natural state already invokes the idea of inclination for motion, and thus the effect caused by two encountering bodies, the object or its emission and the organ of sense, is genuinely interactive rather than one of the parties being the only causally active party, and the other receptive. Second, Plato’s division of appetites into brute, perceptual pleasures and the desire for higher good provides the framework in which to locate perceptual interests.

When introducing the perception of cold, Timaeus contends that it results from the compression of moisture within us by the arrival of a larger quantity of moisture from the external world, penetrating our bodies. The perception itself is not just of this compression. He adds:

But anything which is being unnaturally compressed has a natural tendency to resist such a compression and pushes itself outward in the opposite direction. This resistance, this shaking is called ‘shivering’ and ‘chill’, and the experience as a whole, as well as what brings it about, has come to have the name ‘cold’. (62b)

Algesic perception appears here as a result not merely of the way in which the external agent forces the patient – the recipient body – to change its constitution. Perception results when the recipient constitution, because of its natural tendencies, “pushes back” towards its own natural state. Natural states, then, need not be understood as being passive, but should rather be understood as involving tendencies towards the active restoration of the natural condition.23

Does this example not speak against the idea that deviations from the natural state are painful, and restorations pleasant? Here, after all, it seems that the pushing back to the natural state is involved in painful rather than in pleasant perception. Note, however, that the resistance offered by the recipient is not suc-

23 The anonymous reader of the journal pointed out an interesting further problem: bodies have parts, and for different bodily parts, different kinds of states can be natural (e. g. reproductive organs at 91b4–d6). Is it not, then, possible that the body gives rise to potentially competing, and even conflicting, interests? Speculatively, one might think that in a healthy body, the organisation is such that it shields itself from situations that would endanger self-preservation. Smaller conflicts, however, seem entirely possible, and present one of the reasons for which the rational part is ultimately needed to structure a life in which attention is divided optimally and not only directed towards survival but also towards virtue.
cessful in this example: the compression happens despite the resistance, perhaps even accentuating it if the pushing back creates even more compression. Should the resistance win over, and something in our environment or/and in the pushing back effect a withdrawal of the external cause of compression, the perception would be a full-fledged case of restoration and thus pleasant. This establishes that while depletion of the natural state might typically be externally caused, and hence its perception reactive, an important part of the explanation of perceptual affections is that there are active inclinations to maintain and to restore the natural state. In this regard, it is not misleading to think of perceptions as affectively inflected in the sense that perceptual affections are essentially either corruptions of the natural state or its recoveries, carrying the negative and the positive associations that they do. Moreover, of these affects many – the sufficiently intense ones – are experienced as such, as either algesic or hedonic.

As much as one would like to think that these inclinations also act as the basis for the selection of that which we attend to within perception, one could still object that the level of explanation is that of the fundamental elements, not the behaviour of living organisms – or agents. The natural tendency – and activity – to maintain and restore the natural state at the micro-level of the physical makeup of the body does not necessarily mean that the behaviour of the embodied living being would yield to the same explanatory model. Especially, there is room to question whether the good aims are the same on the micro and macro levels – that is, whether we can meaningfully talk about the good of the animal or the agent within the same explanatory framework as at the level of elemental particles and their combinations.

Indeed, there seems to be a major disruption between the two levels. Having concluded the detailed discussion of the physiology of different perceptual qualities, the dialogue proceeds to the level of the living being, to the ways in which the mortal soul is held and protected in the mortal body. In this context Timaeus presents pains and pleasures in an equally negative light:

And within the body they built another kind of soul as well, the mortal kind, which contains within it those dreadful but necessary disturbances: pleasure, first of all, evil’s most powerful lure; then pains, that make us run away from what is good; ... [continuing with boldness, fear, and anger]. (69c8–d3)

As regards the mortal being, both pains and pleasures motivate actions, and seem to guide the agent away from the good, and also for the same reason: their pursuit or avoidance makes the person blind to the pursuing of the (real) good through providing strong incentives. This means that there is, indeed, a gap between the physiological explanations and the explanation of the behaviour of the mortal living being as a whole. Not only does it seem to be the case that a perceived pain
or pleasure, that is, conscious destruction and restoration is needed. In the case of the somatic motions, the natural state appears in a positive light, both in itself and as an aim towards which the physiological processes tend, causing positive experiences, while its destruction appears as a negative phenomenon, causing negative experiences. In the case of the explanation of the action of a human being, however, both disturbances are problematic for the attainment of the true good of the mortal being, and hence negative.

It seems that we cannot infer from the good at the micro level anything about the good at the macro level. Yet there is a more fundamental difference in the ways the mortal and the immortal soul typically – without being disciplined – pursue different kinds of goods:

... given that human beings have two sets of natural desires – desires of the body for food and desires of the most divine part of us for wisdom – the motions of the stronger part will predominate and amplify that which is their own [benefit/interest] (to men spheteron auxousai). (88a8–b3)

The ensouled body features its own natural desires – desires that have been in the focus of this article – while the rational soul introduces another set of desires (for knowledge, and the pleasure to be had when contemplating). These sets compete and are, if inhibited, inclined to amplification.24 But note that both passages establish that the perceptual system of pains and pleasures does motivate human beings: the appetitive soul, informed by the body, has its own set of desires for a particular kind of objects (and aversion to others), and an inclination to amplify them at the expense of the other set. Perceptions that are conjoined with pleasure and pain, then, involve tendencies that guide attention: what we pursue and avoid in our environment.

It is not the case that nothing of the positive and negative connotations on the micro-level reaches the macro-level. Rather, we have two parallel, and competing, orders of good and sets of desire for the good. The striving towards maximising pleasant perceptions and avoiding painful ones is a mechanism built into the very nature of the body and its perceptions. This, in turn, creates fertile ground for well-known problems in moral psychology, such as akrasia. In the Timaeus, such problems are mitigated by how the lower gods organise the human

24 Fletcher (2016), pp. 415–17 also thinks that there are two different kinds of soul involved, and here I do follow her view. I differ in thinking that this does not mean that the physiology of the perceptions themselves would be totally different. For Plato, the same thing, harmony for example, can be both non-rationally and rationally good (see e.g. Tim. 47d). The perception of harmony calms, in the latter case, the shaken orbits of the rational soul and, in the former case, the more bodily disturbances.
body, and by the placement of the faculties of the soul in its different parts. While disturbances cannot be avoided, there are psychophysical ways in which these disturbances are organised so as to play a positive role in survival, in learning, and in the increase of rationality. 

**Concluding remarks**

For anyone familiar with Plato, the way that pains and pleasures move us will not in itself come as a surprise. According to him, people are commonly drawn and tossed by irrational appetites and fears, and these inclinations blind us from goods that the rational soul posits as our true goal. At best, their role is instrumental in securing survival. But they are strong motivating factors. For example, the lower gods of the *Timaeus*, being worried about the inclination to boundless pleasures of food and drink, create the lower abdomen just to store excess and prevent mortal human beings from dying as a result of their inclination to satisfy unlimited bodily appetites (72e).

What I take the *Timaeus* treatment of pain and pleasure, as perceptual affections, to add to this familiar story is a description of the perceptual mechanisms through which the typical human tendencies come about. Added are important further claims, namely that (I) perceptions carry from the beginning – through the natural pushes towards and the unnatural pulls away from the natural state – a determination of causing pleasure or pain; (II) some of these affections, namely the sufficiently forceful and intense ones, are cognized as naturally ordained according to the same model of the two reverse motions, either positively or negatively; (III) This understanding of pain and pleasure, rooted in the basic acts of perception as disturbance, gives us rudiments of perceptual attention – or rather, perceptual interests – of the non-rational part of the soul, grounding the motivation for action. (IV) At its foundation, this theory is physical-teleological rather than exclusively cognitive or psychological: hedonic and algesic perceptions are only intensifications of the more fundamental level of explanation, that of destruction and restoration. All this has repercussions for the choice of therapy of desire. A purely cognitive therapy cannot work, and both the concluding pages of the *Timaeus* and some passages in the *Laws* introduce more holistic therapies.

26 See Corcilius (2020).
27 For related views in Aristotle, see Corcilius and Gregorić (2013) and Campeggiani (2020).
where the body with its proper organisation is taken into account. (Tim. 88–89; Laws 653–54).28

From the point of view of later theories of attention, one might still point out that something is missing: pain and pleasure may well guide our actions, but is there an interest, in Plato, in the selective attending within perception as such? A proper theory of endogenous attention would involve some explicit ideas about (i) how the perceptual field gets organised into more or less salient features according to incentives and guidance that come from within, (ii) how external stimuli in co-operation of internal measuring of saliency function and provoke the assessment from delicious-and-to-be-grasped-mushroom-here to dangerous-and-to-be-avoided-mushroom-there to grass-in-which-they-grow-and-that-nearly-escapes-notice. Part of this story probably has to do with the rational soul, a topic not dealt with in this article. As regards appetites, providing such a theory on behalf of Plato might look something like this: pleasant and painful perceptions give rise to a certain kind of memory imprints available for fitting with new incoming imprints, and hence having such memories makes us likely to interpret things in our surroundings either as to be pursued or as to be avoided.

The details of how the selective attending within perception happens remain speculative, or at any rate implicit. Nonetheless, it does seem to be the case that the physiological-teleological model underpins perception, and perception, in turn, underpins full-fledged appetites that motivate actions, appetites that determine, on their part, the focus of our attention. It remains for our rational abilities to ordain these motivational pushes and pulls.

Bibliography


28 For the therapy in the Timaeus, see Moss (2012) at 271–72. I am grateful to Claudia Zichi for the reference in Laws.