Aristotle on Psychic Subjecthood and Explanation

The Question of Psychic Subjecthood

In recent years, vigorous debate has emerged around a question central to Aristotelian psychology and metaphysics. This question is often framed in ontological terms, and concerns the sorts of causal roles played by the Aristotelian souls of various living organisms. More precisely, it asks whether such souls are ever capable of immediately or non-derivatively underlying the sorts of states and transitions involved in intuitively psychological phenomena such as perception, emotion, or thought, or whether these states and transitions must instead belong directly or non-derivatively to ensouled living things such as human beings, horses, and dogs.\(^1\) When Socrates builds a house, Bucephalus sees a certain shade of yellow, or Fido gets angry at the mailman, in other words, will these ostensibly cognitive activities ever involve instances of knowledge, states of awareness, or causally relevant events that belong directly to their individual souls in the way that a certain weight belongs directly to the materials making up a bronze sphere, or in the manner that various phenomenal experiences are often held to be immediately present in something akin to a Cartesian mind? Or will such cognitive activities instead be fully explicable in terms of bodily states that are ultimately explained by, while nevertheless failing to directly belong to, the Aristotelian souls that make them possible?

According to the currently dominant line of reasoning, Aristotle's mature thoughts on the soul rule out the possibility of such psychic subjecthood. In the De Anima, the argument typically goes, the soul is defined as the "substantial form" or "first actuality" of a certain sort of living body, and however we are to interpret this characterization, it is clear that it does not require the introduction of some additional entity that might stand as an independent subject for "mental" states and events. Instead, we are told, the claim that a given organism has a certain type of soul indicates something about how

\(^1\) For the purposes of this paper, a property, P, belongs immediately or non-derivatively to a subject, S, if and only if: (1) P belongs to S in virtue of the kind of property or attribute that P itself is, and (2) There is no further subject, S1, such that P belongs to S only in virtue of the fact that it first belongs to S1. Color, according to Aristotle, belongs to bodily surfaces in this immediate or non-derivative manner because: (1) An item's particular color is directly determined by a certain facts concerning the transparency or opacity of such bodily surfaces, and (2) Color does not belong to any particular bodily surface by first belonging to some other subject similarly related to surfaces themselves. By contrast, color belongs only indirectly to material bodies, for it belongs to such bodies only in virtue of belonging directly to their outer surfaces.

For claims of this sort, see, for instance, Metaphysics VII.4, Posterior Analytics I.4.
it is to be understood and explained, and informs us that its characteristic behaviours cannot be sufficiently accounted for by appeal to the more basic physical stuffs from which it is made. It also situates this organism within a broader teleological context provided by the specific form of life it instantiates, and suggests that its most distinctive activities can be understood only against this backdrop. Yet none of this, it is argued, does anything to change the basic facts of subjecthood that motivated our initial appeal to souls as explanatory principles. It is still only the changes, states, and behaviours of ensouled living bodies that we are trying to explain; we now, however, have a much wider set of goals, considerations, and principles by which to account for them.\footnote{There are several prominent advocates of this general view. Among them, one may include Sorabji 1974, Frede 1987, Furth 1988, Wedin 1988, Irwin 1990, Burnycat 1992, Frede 1992, Granger 1995, and Wedin 2000. In opposition, one may cite Heimman 1990, Shields 1995, and the revised view of Frede 2000. Frede 1992 and Sorabji 1974 provide clearly and forcefully statements of this thesis, which may be referred to as “psychic subjecthood denial.”

“Now Aristotle’s conception of the soul, as we said at the outset, is not only determined by his particular version of the assumption that in virtue of which a living thing is alive; it is also characterized by his rejection of the assumption that the soul is an entity distinct from the body it animates and the proper subject of certain predicates we ascribe to living things, namely the mental predicates.” Frede 1992: 103

“The Cartesian interpreter might now read into [such] passages the idea that anger or smelling has two components. The physiological process is one component; the other is a purely mental act of desire or awareness... but even if there had been a component of anger than the physiological process, this component could not have been a purely mental act. For Aristotle, no acts are purely mental since every pathos (affection) of the soul is, among other things, a physiological process.” Sorabji 1974: 70.
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I believe that such reasoning is misguided, and will argue against it in what follows. In its place, I will defend a position that commits Aristotle to a moderate or partial form of psychic subjecthood, according to which certain states or events involved in higher-order biological activities must belong immediately to Aristotelian souls. In direct opposition to the currently dominant view, I shall claim that this moderate or partial version of psychic subjecthood is demanded by certain explanatory constraints that Aristotle associates with so-called cognitive or intentional processes, and assumes to be characteristic of mental activity as such. At the same time, nevertheless, I will also concede that the souls defined in the De Anima can never underlie what might be called “complete biological operations,” and will never themselves stand as the subjects of full acts of house-building, perception, or emotion. Rather, such souls are capable of underlying only specific components of these processes, and require the mediation of bodily states and events if they are to participate in animal life.
In this paper I shall present one of many plausible arguments for this conclusion. This argument focuses on two related discussions in Aristotle's *On Generation and Corruption*, discussions that deal with the interconnected notions of contact, acting, and being affected, and are meant to provide an exhaustive analysis of the conditions and processes involved in an important subset of efficient causal processes. The relevant subset, which is often described in terms of 'assimilative' causal activities, picks out all and only those cases where an agent gives rise to a change in some patient by transmitting a state or property that it in some way already possesses. It is exemplified whenever a hot fire heats a cistern of cold water placed over it, or a wet rag dampens a table on which it is left to dry. It is also instantiated, Aristotle believes, when parent organisms give rise to offspring of the same species, when a rose produces an awareness of its redness in a given perceiver, or when an expert builder recreates his grasp of what it means to be a house within the materials at his disposal.

The *GC's* analysis of such assimilative processes, I will argue, is intended to capture an intuitive difference between these two types of cases, and does so by establishing at least two distinct forms of causal agency. The first, which applies exclusively to bodily and material causes, is characterized by *reciprocal* relations of contact and activity, and holds only of processes constituted by two-way interactions between contrary sensible qualities. In such instances, an agent causes a change in its patient by means of some particular property, A, and the relevant transition consists in this patient’s both losing some contrary property, P, and gaining some new attribute that more closely resembles the initial A-property possessed by this agent. Hence, a particular fire warms a cold cistern of water because it has the A-property of heat, and this warming consists in the replacement of some contrary P-property - namely coldness - with a new attribute that lies somewhere between these initial extremes.

In the course of this same change, however, the relevant agent also opens itself up to the possibility of *counter-affection*, a process through which its own A-property will come to be replaced by some new attribute that more closely resembles the original P-property possessed by its patient. Accordingly, the same fire that can to warm a cistern of water in virtue of its heat may also be simultaneously cooled by the liquid it warms, having its initial temperature replaced by some new attribute on the continuum between hot and cold.

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3Henceforth, I will refer to this text as the *GC*. 
The second such form of agency applies exclusively to non-bodily and immaterial causes, and is characterized by *non-reciprocal relations* of contact and activity. In such cases, a particular agent again produces a change in its patient by means of some particular property, A, and the relevant transition likewise consists in this patient’s losing a given property, P, and gaining some new attribute that more closely resembles this initial A-property. Unlike instances of the first sort, however, processes of this second kind do not require their agents to possess A-properties that are truly contrary to those P-properties initially possessed by their patients, or to engage in activities that open them up to the sorts of counter-affections just defined. Instead, the relevant causes act without putting their causally relevant properties at risk, producing formally similar analogues of such properties in suitable material substrates.

To illustrate this second form of causation, we may rely on *GC* 1.7’s claim that it is the cognitive representation of health possessed by a particular doctor that best explains his characteristic ability to heal a given patient’s body. As a form of knowledge, this cognitive state is not genuinely contrary to the bodily state of ill-health on which it works; instead, it is a sort of intelligible blueprint that represents what it is for a human being to be healthy, and can give rise to a state of health contrary to a patient’s initial sickness only by being concretely realized in some set of elemental materials. As opposed to Aristotle’s first form of assimilative causation, moreover, this example of an expert doctor healing a patient does not require any true possibility of counter-affection. Unlike the fire that warms a cool cistern of water, our doctor will not lose any of his medical knowledge by curing this or that ailment, and will not compromise his causal powers simply by exercising them. He may, of course, come to possess the same bodily state of illness that initially afflicted the organism on which he has operated, but coming to acquire this state does not immediately destroy his own grasp of health.

In what follows, I shall argue that this distinction between reciprocal and non-reciprocal assimilative causation can be understood only if one grants a corresponding distinction between bodily and psychic subjects. The former, which are ultimately constituted from the four elements and their powers, are inextricably connected to two-way processes of contact and causation. They directly occupy places within the universe, make immediate contact with their material objects, and are affected by the same qualities on which they work. The latter, which are ultimately constituted from the immaterial souls or essences of particular living things, are inextricably connected to one-way
processes of contact and causation. They only indirectly occupy places within the universe, instantiate an attenuated form of contact sort, and govern processes of change without being counter-affected by their material patients.

Before diving into the GC passages relevant to this argument, however, I will first say a little about the overarching goals of this text, and about their greater importance to the specific issues with which I shall be concerned (Section I). In so doing, I hope to show both why Aristotle is interested in instances of psychic subjecthood within a text expressly dedicated to uncovering the structure of our universe's most fundamental material constituents, and why this interest should express itself in a treatment of the general phenomena of contact, acting, and being affected. Following this preliminary discussion, I will then turn to Aristotle's "authoritative" or governing sense of contact, and indicate how a careful analysis of this term allows him to conclude that the material elements responsible for the most readily apparent and prominent forms of change must be resolvable into the more basic constituents of earth, air, fire, and water (Section II).

Having dealt with the most central senses of Aristotelian contact and change, I will progress immediately to GC I.6's treatment of what is described as a distinctively non-reciprocal form of contact (Section III). Relying on both the results of the previous section and a detailed treatment of the relevant passage, I will argue that this non-reciprocal form of contact must involve at least one causally relevant subject that is not directly made up of earth, air, fire, and water. But since this subject must nevertheless bear some relative spatial relation to that of its causal partner, it follows that it must be closely related to some material entity that is somehow related to the changes it causes of sufferers. Consequently, this mysterious subject can only be an Aristotelian soul, which is after all the inseparable substantial form or actuality of a particular living body.

At this point, I will move directly to the analysis of asymmetrical causal activity provided by GC I.7, and argue that sort of subject responsible for such activity is one and the same with the sort of subject said to be capable of one-way contact in GC I.6 (Section IV). Relying on Aristotle's example of a doctor healing a patient, along with his explicit claim that agents of this variety do not have their causally active forms "in matter," I will conclude that the non-reciprocal form of causation characteristic of such agents is made possible by the fact that their explanatorily relevant attributes belong directly to the non-elemental subjects that are Aristotelian souls. Just as an axe may possess a
material capacity to chop that is directly related to material features such as its weight or sharpness, I will argue, so the soul of a doctor can possess an immaterial capacity to heal that is related to its immaterial possession of some form of health. But while axes may be blunted and fires cooled by the materials on which they work, the causally efficacious attributes possessed by souls are not directly affected by the patients on which they operate.

To this extent, I will conclude, various cognitive and mental states cannot be understood as mere dispositions or capacities of the teleologically organized bodies that Aristotle takes to constitute particular living things, and the Aristotelian souls that immediately house such states will need to be far more independent of these teleologically organized bodies than is standardly assumed. At very least, it would seem, they will need to be just independent enough to be capable of underlying events and attributes that are not immediately shared in by such teleologically organized bodies themselves, and just different enough to be capable of instantiating a form of agency that cannot be reduced to that exhibited by material entities and their compounds. At the same time, however, we must be careful not to take such claims of independence too far, or to imply that Aristotelian souls will ever be capable of underlying complete activities of weaving, house-building, perceiving, or getting angry. The *De Anima* makes it very clear that this is not the case, and nothing in the *GC* should be taken to suggest otherwise.

Without further ado, then, let us turn to Aristotle's general preamble to *GC* I.6-10, where the crucial possibility that there may in fact be two or more distinct types of agential subjects or powers is first broached. This will set the agenda for the more detailed discussion of contact, acting, and being affected that follows, just as Aristotle himself intended it to.

**I. The Dual Aims of *GC* I.6-I.7 and the Notion of Focal Meaning**

*GC* I.6-7's treatment of contact, acting, and being-affected begins with an introduction informing us of Aristotle's reasons for including these topics within a broader discussion of sublunary generation and corruption. Surprisingly, however, this introduction does not highlight the general prevalence of such phenomena within the natural world, or the indispensability of its main terms to understanding changes existing at varying levels of sophistication. Rather, it focuses entirely on the importance of
contact, acting, and being-affected to processes involving the “so-called” elements, and on the significance of these concepts to an understanding of lower-level matter.

Since we must first speak concerning matter, that is, the so-called elements, saying whether they are or are not, and whether each of them is eternal or in some way comes-to-be, and if they come to be, whether all of them come to be from one another in the same way or some one of them is prior, we must earlier discuss things that are currently spoken of in an ill-defined (adioristós) manner. For all those who generate the elements, and those who generate things from the elements, make use of segregation and aggregation and acting and being-affected (poiein kai paschein). (GC 1.6:322b1-8)

In both this passage and the claims that immediately follow it, Aristotle’s message is simple. The scientist seeking to understand natural processes such as generation and corruption must first acquire knowledge of the material substratum underlying them, which is primarily constituted by elemental bodies whose mixtures and transformations give rise to compounds of increasing complexity. Among other things, this knowledge will require the resolution of disputes concerning the alleged eternality of these bodies, and of their ontological standing with respect to one another. When acquired, it will allow us to better understand the powers or attributes that allow these fundamental elements to generate, destroy, and combine with one another, and will in this way increase our comprehension of the natural world.

As Aristotle here notes, it is universally agreed that these fundamental materials engage in processes of action and affection whenever they are created, destroyed, or mixed. To this extent, determining the basic structure and characteristic attributes of these items will be largely a matter of better understanding these processes themselves. But acting and being affected, we are informed, are still spoken of in an “ill-defined” or "indeterminate" (adioristós) manner by various philosophers, and so the settlement of such questions concerning sublunary matter will first require us to clarify exactly what is meant by these ideas. As contact appears to provide a necessary prerequisite to any efficient causal activity, moreover, an adequate grasp of these notions will in turn presuppose a detailed grasp of what it means for one entity to touch another. Hence we must begin our treatment of matter with an analysis of material contact.\textsuperscript{5}

\textsuperscript{4} All translations from the GC, and all other Aristotelian texts, are my own, and based on the Oxford Classical Text editions of the relevant passages.

\textsuperscript{5} GC 1.6: 322b21-24; 322b26-29.
In this way, Aristotle’s introduction to \textit{GC} I.6-7 presents a unified program of investigation, and creates the impression that the upcoming treatment of contact, acting, and being affected will be more or less subordinate to the discussion of the elements that occupies the first half of \textit{GC} II. To those who have followed the train of thought laid down in the opening chapters of this work, however, this restricted focus ought to be somewhat surprising. Its very first sentence, after all, promised an analysis of generation, corruption, alteration, and growth that would apply “uniformly” to all things that undergo these processes by nature,\(^6\) and Aristotle’s attempt to motivate such an analysis in \textit{GC} I.2 criticized Platonic science for its solely elemental focus.\(^7\)

Hence, there appears to be some tension between the interim program of investigation laid down at the beginning of \textit{GC} I.6 and the broader goals Aristotle evidently envisioned for this treatise. Intuitively, contact, acting, and being-affected appear to be applicable to natural processes at various levels of material and biological sophistication, and so ought to be covered by precisely the sort of general or uniform treatment promised at the outset of the \textit{GC}. Yet given Aristotle’s statements elsewhere, we have little reason to believe that the conditions and processes involved in basic elemental interactions will simply recur within the more complex changes that constitute perception, thought, and reproduction.\(^8\) Hence, if this \textit{GC} treatment is to successfully tackle both elemental and non-elemental changes, Aristotle must find some way to bridge the obvious gap between these two domains.

Fortunately, Aristotle has precisely the conceptual tools needed for this task. He possesses, after all, a well developed theory concerning the relationships among various senses of key philosophical terms, a theory that scholars have typically referred to in terms of “focal meaning.” Thus, it is by no means surprising to find him appealing to this theory here, and using it to explicating the various scientifically relevant senses of contact.

\(^6\) \textit{GC} I.1: 314a1-3. For further remarks on the universality of \textit{GC} I, see Burnyeat 2004, 13-24.

\(^7\) \textit{GC} I.2: “Thus, we must speak in general (\textit{holó}) about generation and corruption simpliciter, discussing both whether or not they take place, and how, and concerning the other changes, for example growth and alteration. And indeed, Plato investigated only generation and corruption, saying how they pertain to things. Moreover, he spoke not of all generation, but only of that concerning the elements, saying nothing about it pertains to flesh or bone or any other things of this sort.” (315a26-33).

\(^8\) For perception and thought, see \textit{De Anima} I.5, and the helpful comments of Hicks 1907; for the case of reproduction, see \textit{Generation of Animals} II.1 (esp. 734b20-735a5). The same holds for the complex processes involved in nutrition, as described in \textit{De Anima} 2.4.
Now doubtless, just as each of the other terms is said in many ways, and some of these are homonymous, while others are derived from other and prior senses, so it also stands with regard to contact (haphēs). But nevertheless, contact in the authoritative (κυρίος) sense belongs to things that have position (thesis), and position to things that also possess place (τόπος). (GCI.6:322b29-34).

The theory behind this passage is straightforward: Aristotle believes that between the extreme case of chance homonymy, in which two items share a name but have nothing additional in common, and the extreme case of full-blooded synonymy, in which two distinct items share both a name and a definition, there is some middle ground involving two or more types of item that share the same name on the basis of some common relationship to some single entity. This single entity corresponds to what Aristotle refers to as the “authoritative” or “governing” sense of the term in question, as it is only because they share some relationship to it that these other items are appropriately referred to by the same word. For this reason, the associated meaning or concept may be said to “govern” all related notions, and the determination of their own semantic content will depend on the sense assigned to this focal case.

Scholars typically illustrate this semantic claim by means of Aristotle’s discussion of the term “healthy.” This term, it is observed, can be applied to a wide variety of items, such as bodies, foods, and complexions, and in all of these cases it bears a slightly different meaning. But despite this fact, Aristotle claims, this diversity of uses is not random. Instead, each of the items properly referred to as “healthy” bears some unique relation to the health of a living organism’s body, which provides the “authoritative” or “focal” meaning of the term. Hence, a healthy meal tends to promote such bodily health, and a healthy complexion is indicative of this state. The same also holds true of exercise regimes, appetites, and so on. Insofar as such diverse phenomena can be shown to bear some meaningful relation to the central case of bodily health, then, their own status as healthy items is secured.9

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9 See Metaphysics IV.2: “‘Being’ is said in many ways, but with reference to a one thing (pros hen) - a single definite nature - and not homonymously. Thus, as ‘healthy’ is said with reference to health (pros hugicēan) - either because something preserves it, or produces it, or is a sign of it, or is receptive of it - and as ‘medical’ is said with respect to the art of medicine (pros iatrikēn)... Thus, just as there is one science (epistēmē) of all healthy things, this similarly occurs in the other cases. For it is not only to terms which apply to a single thing (kathēn) that a single science belongs, but also things which are spoken of with reference to one nature.” (1003a32b-19).
For this reason, Aristotle argues, it also makes sense to study all “healthy” phenomena under a single science of health. Unless we have some grasp of our central case, it seems, the healthiness of these other states and entities cannot be assessed, and we will not be fully sure whether any single putative example counts as a genuine instance of focal unity. To know that and why a particular diet, exercise regime or complexion counts as healthy, therefore, we must first understand what bodily health itself consists in. And if we should happen to gain additional knowledge concerning this bodily state, we may indeed need to revise our intuitions concerning several other cases.

As we shall see, Aristotle’s strategy within GC I.6-7 takes this same form. Contact, acting, and being affected are said to possess ‘authoritative’ senses, and certain additional uses of these concepts may be legitimately treated within the same science to the extent that they can be related to these central cases. As in the analogous example of health, of course, much depends on the specific relation at issue, and certain relations will better ground claims of scientific unity than others. Nevertheless, a full determination of this schema will depend heavily on our interpretation of these chapters themselves, and shall be provided only in the final section of this paper.

II. Contact in the “Authoritative” Sense

Having discussed this necessary semantic background, we may now turn to Aristotle’s discussion of the authoritative sense of contact. As in the passage just cited, this sense will belong exclusively to those items that have position, and so only to entities that also possess place. In determining the precise class of items to which this sense of contact applies, therefore, we will first need to know both why position is required of any two items which touch each other in this manner, and just how the relevant notion differs from that of place.

Luckily, the discussion which immediately follows this passage is extremely helpful in answering both of these questions, as it not only argues for a necessary connection between authoritative contact and position, but also provides information pertinent to distinguishing between position and place.

Thus, if to be in contact (to haptestha) is to have one’s limits (ta eschata) together, as we determined earlier, those things will be in contact with one another that are discontinuous magnitudes that both have position (thesis) and have their limits together. But since position belongs to things that also have place (topos), and the primary differentiae of place are above and below, and other such contradictories, all things which are in contact with one another (ta allêlôn haptomena) will have heaviness and lightness, either both or just one. (GC I.6 323a3-9).
The connection between authoritative contact and position argued for in this passage follows directly from definitions provided by an “earlier” discussion within *Physics* V.3. There, we learn that two items are in contact if and only if they have their limits together, and so possess surfaces or boundaries that are not separated by any further entity. The possession of limits requires the relevant items to be spatially extended and discontinuous magnitudes, however, as only items of this kind possess unique limits that can be topologically distinguished from their interiors.\(^\text{10}\) Thus, all items that are in contact with one another must be discontinuous magnitudes.

In addition, this passage also tell us that position is a relative spatial notion, and accordingly holds between any two items which are situated with respect to one another. As such, it is captured by two-place topological predicates such as “...is above...”, “...is below...”, and “...is to the left of...”, as well as associated non-directional predicates like “...is next to...” and “...is together with...”. But this, in effect, means that any items that make contact in this authoritative sense must also some form of position. Any entities which have their limits or boundaries together, after all, will obviously need to be above, below, or to the left or right of one another, and the assertion that they are touching is indeed little more than a special case of such relative spatial relations.

Against the backdrop of his broader cosmology, Aristotle’s further move between position and place (*topos*) is clearly intended to involve some shift between relative and absolute conceptions of location. As various texts make clear, Aristotle believes in a finite and spherical universe, and so takes genuine ascriptions of place to involve locating a particular item on the determinate grid marked out by its centre and periphery. Accordingly, he is able to map absolute notions of “below” and “above” onto these objectively fixed locations, and can intelligibly claim that any item that occupies place must fall somewhere on the continuum laid down by these contradictories.\(^\text{11}\)

The argument by which Aristotle establishes a necessary link between these relative and absolute ideas of location is more problematic, as he sometimes *does* speak as though it is possible for geometrical items such as lines and planes to touch even though they possess only position. Nevertheless, I believe that this argument can be satisfactorily interpreted if we recognize that

\(^{10}\) *See Physics* V.3: 227a18-23.

\(^{11}\) *See De Caelo* I.5-7.
Aristotle is here trying to describe a specific notion of contact instantiated by those items capable of acting on and being affected by one another in a straightforwardly physical sense. When we acknowledge this goal, it seems to me, it is clear that any item capable of touching another in this way must also occupy some definite location in the physical universe that provides the arena for all causal interactions. Thus, while Aristotle may sometimes appeal to an abstract or mathematical notion of contact that requires only relative position, it is clear that this weaker notion will not suffice for entities which actually act upon, or are affected by, other items.\footnote{\textit{Physcis} IV.1: 208b22-25}

Having established this link between position, place, and being located somewhere on the objective spatial continuum delimited by “above” and “below,” we may now turn to the further connection that Aristotle draws between existing within this continuum and possessing either weight or lightness. As in the case of position and place, establishing this connection will require a bit of work, but I am likewise convinced that a satisfying interpretation can be found. To see this, we must first recognize that Aristotle defines lightness and heaviness in terms of natural tendencies regarding motion and rest, and holds that the weight of a given body is determined by its inherent dispositions to gravitate towards and reside at some fixed location within the objective topological grid that is the universe. These tendencies are for Aristotle explanatory primitives, and so cannot be explained by reference to any further laws or properties. Hence, an item is heavy or light simply because it moves downwards or upwards when unimpeded, and will do so unless it already happens to be occupying its proper location.\footnote{See \textit{De Caelo} VI.3-4.}

On the basis of this recognition, I believe, we are able to grasp how Aristotle might go about establishing a connection between the properties of place and weight. The particular argument I have in mind is disjunctive, and begins from the claim that any item which occupies some place in the physical universe must be there either naturally, or because it is being held in check by some other entity. If the former is the case, I take it, we can justifiably assert that this item possesses whatever weight happens to belong to the sorts of objects that naturally rest in this location. Thus, the assumption of the first disjunct permits us to assign a determinate weight to this item. If the latter holds, by contrast, this object must nevertheless be exerting some determinate force against its
external bonds, and if the relevant impediment is removed, it will according move until it either reaches that place in the universe that is natural to its specific weight, or encounters some further obstacle. Consequently, our second disjunct also enables us to assign a definite weight to the item concerned, and the required link between place and weight can be effectively established.\footnote{For a similar argument, which helps to establish that the elements must be generated from one another rather than some indeterminate nature, see \textit{De Caelo} III.3: 305a24-33.}

Once Aristotle has established this thesis, he has already given us enough evidence to successfully identify the class of objects that are capable of contact in the authoritative sense. Texts such as the \textit{Physics} and \textit{De Caelo}, after all, make it clear that each of the four elements has some natural place in the universe, and that all other items which possess weight will qualify as light or heavy only in virtue of being constituted from them.\footnote{See \textit{De Caelo} IV.4, esp. 311a30-34.} Consequently, Aristotle’s analysis of authoritative contact has explicitly demonstrated what his cosmological assertions elsewhere only assume: The universe’s most basic material constituents are provided by irreducibly qualitative bodies such as earth, air, fire, and water, and cannot be resolved into non-qualitative components such as atoms or geometrical shapes.

After establishing this implicit link between two-way, authoritative contact and these qualitative elements, Aristotle immediately proceeds to make two additional assertions concerning the sorts of items to which this notion applies.

\begin{quote}
But things of this sort (\textit{ta toiauta}) are capable of acting and being affected (\textit{poietikon kai pascheti}). So it is clear that those things which naturally touch one another are discontinuous magnitudes whose extremes are together, which are capable of changing and being changed by one another (\textit{kinetikon kai kinetôn hup allêlon}). (\textit{GC} I.6: 323a9-12).
\end{quote}

As the first sentence of this text demonstrates, Aristotle is here relying on the fact that his audience has read enough of the \textit{Physics} and \textit{De Caelo} to know that he now has the four Empedoclean elements in mind. Hence, he can refer to items which possess weight and lightness as “things of this sort,” and make claims about their abilities to act and be affected that follow straightforwardly from the standard Greek conception of these bodies. Since earth, air, fire, and water were traditionally assumed to be capable of changing and being changed by one another, therefore, and as such
interactions were readily open to unaided empirical observation, he can conclude his analysis of authoritative contact with the claim that it entails the possibility of two-way causal relations.\footnote{See, for example, fragment 17 of Empedocles, preserved in Simplicius in \textit{Phys. comm.} 158,1.}

With this, then, we have concluded our discussion of the authoritative sense of contact, and have already placed significant constraints on the kinds of material subjects and capacities required to explain the natural world's most basic changes. This, however, does not mean that the broader project of \textit{GC} I.6 is finished, and Aristotle will in fact devote over a page of text to this topic. As I now hope to demonstrate, this is because the relevant notions of contact and causal activity extend far beyond mere material interactions involving material contraries. Most significantly, they also include various instances in which immaterial items cause changes in material or immaterial subjects because they possess relevantly similar immaterial attributes.

Not surprisingly, Aristotle introduces such additional senses of contact into his discussion by means of an observation about Greek linguistic usage. Although we have been analyzing an idea of contact pertinent to the concepts of acting and being affected, he notes, the notion of action is often used interchangeably with that of causing change. But the latter concept, at least in Aristotle's view, allows for the possibility that at least some subjects will be capable of causing change without themselves being changed themselves. Hence, there is reason to believe that there must also be a \textit{non-reciprocal} sense of contact that elucidates how these one-way changes might be possible.

\section*{III. Contact in the Extended Sense}

Immediately after concluding his discussion of the authoritative sense of contact, Aristotle observes that acting and causing change are standardly understood as equivalent terms. He then employs this observation to motivate the claim that there must be unaffected agents in addition to the reciprocal changers just discussed.

Since not everything that changes something (\textit{to kinein}) changes it in the same way, but in some cases the changer is also itself necessarily changed while causing change, while in the other cases it is unchanged (\textit{akinêtos}) clearly we will need to speak in the same way about the thing that acts (\textit{epi tou poiein to}). For it is said that that which causes change acts or does something (\textit{to kinein poiein to}), and that that which acts causes a change (\textit{to poiein kinein}). \textit{(GC} I.6: 323a13-16).
Presumably, Aristotle is here relying on contemporary Greek usage, which like English is quite comfortable sliding between the claim that a given entity has caused some change and the assertion that it has acted upon something else. Yet as has already been established in the *Physics*, there are at least some causes that are capable of initiating changes in other items without thereby undergoing further transformations of their own. Hence, the apparent synonymy between these two terms suggests that there will be some parallel sense of agency applicable to various items that remain unaffected while nevertheless engaging in causal action.

Before going on to identify the sorts of unaffected agents he has in mind, however, Aristotle quickly changes tack. As it turns out, he is not entirely comfortable basing conclusions concerning acting and being-affected on established claims about causes of change, and in fact desires to distinguish these two terms.

At any rate, however, there is a difference, and we must distinguish these things. For not everything that causes change is able to act, if indeed we are going to oppose that which acts from that which suffers action (*tôi* *paschontai*), and the latter applies to cases in which the change is an affection (*pathos*), while affection applies only in those cases where things are altered (*alloioutai*), for example the pale and the hot. Instead, causing change applies more widely than acting. (*GC* I.6: 323a16-20).

Although Aristotle earlier granted that there is some sense of action that is more or less equivalent to causing change, then, he also believes that there is another, presumably more important sense in which these two terms are distinct. And not coincidentally, the sense of causing change that is *not* equivalent to acting and being affected *simpliciter* turns out to be a more general notion including both (1) a technical form of action that is applicable only to elemental bodies and their mixtures, and (2) a far looser variety of causal activity that is applicable to immaterial entities such as souls. As such, this initial distinction between meanings corresponds exactly to explanatory agenda established in Section I, and foreshadowed in the *GC*s earlier claim that contact is a roughly unified term possessing both authoritative and extended senses.

To see this correspondence, we must first understand that Aristotle is here relying on a restricted notion of affection (*pathos*) in order to define corresponding senses of action and affection that will apply only to material changes involving immediately perceptible qualities. For these purposes, he

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17 See *Physics* VIII.1-6.
need only appeal to the argument of the *Categories*, which both divides the broader genus of “qualities” (*poiotêta*) into states, capacities, conditions, and affections (*pathê*), and proceeds to restrict the latter category to immediately sensible properties such as heat and sweetness.\(^{18}\) By introducing this restricted idea of affection into the current discussion of contact, therefore, Aristotle is able to focus our attention on a narrower class of agents that are capable of causing material changes involving only these directly sensible attributes. As we shall learn in *GC*II.1, the causal powers of such agents are ultimately derived from the four tangible qualities of heat, coldness, wetness and dryness, which will themselves become the defining attributes of earth, air, fire, and water.

Having delimited this elemental class of agents, Aristotle is then free to discuss a further sort of causal action that is in no way restricted to the sorts of perceptible changes characteristic of his most basic elements and their compounds. Given the importance of higher-order formal causes to his philosophy of nature, this class will presumably include processes of animal reproduction, intellectual cognition, and skilled technical activity. For although such changes do have their results displayed in various indirectly sensible outcomes, they do not have distinct sensory modalities assigned to them in the way that colours, smells, and flavours do. And although such changes are dependent upon lower-level processes involving more basic qualitative affections, they cannot be fully explained or understood without the introduction of certain non-material causal factors.

Although this textual distinction has been overlooked by almost all interpreters, the treatment of non-reciprocal causation found in *GC*I.7 provides decisive evidence for such a reading. As previously indicated, this treatment focuses on the case of an expert doctor healing a sick patient, and is intended to illustrate the possibility that a particular causal agent might initiate and govern a process of change without thereby opening itself up to counter-affection. This medical example, however, involves a patient who gains a positive state of physical health, and thus qualifies as an instance of alteration in the more general sense employed in texts outside of the *Categories*. And yet given the basic distinction between unchanging and changing changers employed here, the application of this more general sense of alteration to this specific case would produce an explicit contradiction, entailing that our expert doctor should be both affected and unaffected during the course of healing a particular patient. To this extent, then, the sort of higher-order transition involved in changes such as healing cannot

\(^{18}\) *Categories* 8: 9a27-b9.
possibly be included in the class or alterations delimited by our current text, and we must exclude this possibility by interpreting this class along the much narrower lines established in the *Categories*.19

Having established this basic distinction, we may now turn to the next section of the current chapter. Here, Aristotle sums up the interim results of his discussion, and introduces a general sense of contact that is intended to apply to items capable of both reciprocal and non-reciprocal causation.

This, then, is clear. There is one way in which things that cause change (ta kinētika) will make contact with the things changed, and another way in which they will not. But while the general (katholou) definition of contact will apply to things that have position (thesis), and of which one (men) is capable of causing change, and the other (de) of being changed, the reciprocal (pros allēla) sense will apply to things that are capable of causing change and being changed in which acting and being affected belong. (GC1.6: 323a20-25).

The initial sentence of this passage is meant to draw on the exclusively two-way sense of contact that has thus far been developed, and on the idea that this form of contact applies only to items that are capable of being counter-affected when they cause change. Against this particular backdrop, Aristotle goes on acknowledge an obvious but paradoxical result entailed by the class of unchanging changers just identified: If contact and reciprocal causation go hand in hand, there must be at least some causal agents that will not make contact with their patients. Consequently, there will be one way in which some changers touch their patients - namely, that which applies to items capable of reciprocal causal interactions - and another way, which holds only of unchanging causes, in which they will not.

As we may have anticipated, however, this is not Aristotle’s final word on this subject. Such a result would be genuinely surprising, as he has previously informed us that contact, acting, and being affected possess both authoritative and extended senses, and has so far failed to tell us anything about the sorts of changes to which such extended senses will apply. For this reason, our passage immediately amends its claim that not all things capable of causing change will be capable of making contact with their patients. Instead, Aristotle now explains, this term possesses a general (“katholou”)

19 By taking advantage of this *Categories* notion of alteration (alloiōsis), which also forms the backbone of the argument in *Physics* VII.3 (see Wardy 1990 for further elucidation), we are able to extract a single coherent argument from this text and GC1.7. This is in contrast to almost all previous interpreters, and most recently Natali, who sums up his interpretation of this passage, along with those of his predecessors, by concluding that these lines “do not constitute a coherent argument, and seem to be a couple of disconnected remarks.” (Natali 2004: 312).
definition that can be applied to all efficient causal agents, and the reciprocal sense of contact upon which he has thus far focused is only one possible manifestation of this phenomenon.

While it may allow Aristotle to maintain his earlier connection between contact and causation, the introduction of this general sense of contact raises three related questions. (1) To begin with, we may wonder what meaning, if any, can be assigned to this wider notion. On these lines, we will want to know whether the relevant relation can be specified independently of the causal activities in which it is involved, or whether its content is in fact exhausted by its association with such processes. Secondly, (2) we will need to get some sense of the entities to which the non-reciprocal variety of contact included in this general concept is meant to be applied. Here, we will want to know whether the relevant agents share some defining feature, or whether they instead form an entirely heterogeneous class. And lastly (3), we will need to ascertain how this wider notion and its extension are meant to be linked to the governing sense of the term that has already been articulated. This final issue is of great import, as it is crucial to understanding whether Aristotle is correct in thinking that he has identified a single notion of contact, and is justified in treating this term as a unified scientific concept.

In addressing these issues, at least two features of our current passage are immediately relevant. The first of these is the contrastive (men...de) construction that Aristotle employs in introducing the agents and patients of this particular relation, a construction that is clearly intended to indicate that such changes do not entail the previously discussed possibility of reciprocal causation.\(^{(20)}\) To instantiate this more general form of contact, in other words, it is enough that a given item, A, be capable of giving rise to a change in some other item, B, and there is no further implication that this B will be likewise capable of changing A in return. This, of course, will also hold true of the subset of this general notion that Aristotle identifies as reciprocal, and the authoritative sense of this term thereby qualifies as a determinate realization of this wider genus.

\(^{(20)}\) This contrastive construction is particularly important, as it also undercuts the view of Alexander of Aphrodisias (see Philoponus, in GC comm.: 135,7-13) who apparently held that the sense of *hup’alélôn* relevant to GC1.6-7 implies only transitive causation, wherein A acts on some further B, rather than the more robust notion of reciprocal causation, where A acts on B, and B acts on A in return, and with respect to the same quality. In this, he is followed by Williams 1982: 116, and Wildberg 2004: 234-235. As this is clearly an uncommon and strained understanding of this phrase, and I have argued against this possibility elsewhere, it will not detain us here.
The second such feature is the omission of any reference to place within the description of this general notion of contact. This omission is striking, as Aristotle began his discussion of this term with the assumption that position can belong only to entities that possess place, yet now seems perfectly content to sever this link. As such, our present text may seem to revoke this initial commitment, and to extend the possibility of causal action even to entities instantiating only the relative notion of position. Given the crucial role that this link played in establishing the earlier links between authoritative contact and the Empedoclean elements, however, this would constitute a glaring contradiction on Aristotle’s part, and would undermine our previously established results.

Faced with this contradiction, we may initially wish to claim that there has been some omission, either by Aristotle himself or some later copyist. Yet on further consideration, neither of these alternatives seems particularly desirable. To begin with, none of the currently extant manuscripts includes any reference to place in this passage, and it is thus rather improbable that it has simply dropped out of the text. Given the connection just established between the relevant locational notions, moreover, it is especially unlikely that Aristotle has accidentally left out this key term here, or is simply relying on his readers to supply it themselves. Place is, after all, the most loaded and substantive of these two terms, and should thus constitute a far more appropriate shorthand for the pair than any unaccompanied reference to position.

Even more importantly, the clearly established relationship between being in a place, having an elemental constitution, and being susceptible to reciprocal causal interaction should give us pause in assuming that we have a mere mistake or abbreviation on our hands. In this regard, we have just noted that Aristotle presents his general sense of contact in a manner that seems designed to highlight some possibility of one-way causal relations, and indeed, the remainder of GCI.6 makes it clear that this possibility is crucial to his understanding of certain instances of change.

Given these considerations, it seems that we must provide some philosophical explanation for our current passage’s omission of place, and that Aristotle himself must have some way of breaking the earlier entailments leading from contact to counter-affection. On reflection, however, these needs dovetail almost perfectly, as the move between position and place would seem to constitute the most vulnerable link in Aristotle’s own progression from authoritative touch to causal reciprocity. All other such connections – from contact to position, place to weight, weight to the elements, and the elements
to reciprocal affection - appear by contrast to represent either analytically derived consequences of Aristotle’s own definitions, or to express commitments central to his considered views on topics such as weight and the elements. Thus, rather than simply assuming that Aristotle has made a mistake, and wondering how he might have done so, it seems better to concede that he intended both his earlier statement concerning the inseparability of position and place and the present text’s omission of the latter term, and to ascertain whether there might be some way of reconciling these two facts.

Physics IV’s analysis of place is of great use on this point, as Aristotle there articulates at least two distinct ways in which a given item can accurately be said to be located ’somewhere’ within the broader universe. The first such way, which coincides with his strict conception of being in a place, holds only of spatially extended bodies that are themselves contained by further entities. Items of this sort are said to possess places in “virtue of themselves,” and such places are identical to the inner limits of the external bodies currently surrounding or containing them. The second such way, by contrast, applies only to those items that are said to be somewhere or other “accidentally,” and holds of any entity that is suitably related to an extended body of the first sort. As Aristotle's overall discussion indicates, these latter items form a somewhat disparate class, and include the attributes, states, powers, and parts of those bodily entities capable of possessing non-accidental places.

Now by itself, this distinction can account for neither Aristotle’s claim that certain entities are capable of non-reciprocal causal activity, nor our current text’s omission of any reference to place. To understand this, it is first important to recognize the centrality of properties and powers to Aristotle’s account of efficient causation, and to realize that agents of all stripes are capable of causing and undergoing changes only in virtue of the states and attributes they happen to possess. Just as a particular fire is able to heat a cold pail of water because it currently has some degree of heat, therefore, so a particular doctor is capable of healing a patient because he currently has some formal representation of human health. And just as a cold pail of water is able to be heated only because it can come to underlie some perceptible degree of heat, so a particular body can be healed only because it can come to underlie the state of good organization that constitutes being healthy.

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21 See Physics IV.3: 212b7-10. For extremely useful discussion on these points, see Morison 2002.
23 Physics III.2: “The agent of change will always carry some form, either a substance or a quality or a quantity, which will be the principle and cause of the change. For example, that which is a man in actuality makes (poiei) a man from that which is a man in potentiality.” (202a9-12). See also GCL7: 324a14-24.
As this causal schema applies equally to both directly perceptible affections such as heat, and to higher order states such as health and its cognitive representation, it cannot itself explain why certain agents, such as fires, open themselves up to counter-affection when they act, while others, such as doctors, do not. Both, after all, appear to cause changes in virtue of properties that possess only derivative or accidental places, and we cannot therefore claim that higher order properties such our doctor's formal representation of health are not counter-affected simply because they possess their causally relevant attributes in an accidental sense. Nor, for that matter, can we use such reasoning to argue that the heat of a given flame stands in more direct contact relation with its patient than a doctor's grasp of health and the living body it heals. In each case, the causally relevant attributes at issue will be assigned the same merely derivative locations, and any distinction based on Aristotle's Physics IV framework will be unable to account for the relevant differences.

For this same reason, the mere distinction between essentially and accidentally possessed locations can provide no real explanation for the omission of place associated with Aristotle's so called "general" sense of contact. It may have done so, had the basic schema found in Physics IV allowed us to find some meaningful difference between the ways in which perceptible affections and higher-order states can be said to be somewhere within Aristotle's spherical cosmos, but as we have seen, no such difference can be constructed out of these more general claims.

While this distinction cannot make sense of our current issues in isolation, however, I believe that both of these questions can be resolved if we pay close attention to a further claim found in Physics IV.3. For upon closer examination, Aristotle’s discussion of items that can be accidentally said to possess place is by no means limited to properties that belong to elemental bodies and compounds. Instead, it contains a prominent reference to the soul, and twice distinguishes between attributes such as white, which ultimately inhere in physical bodies, and attributes such as knowledge, which are said to inhere directly in souls or their parts. 24 Thus, it seems that if we simply take the latter claims at face value, and can find some way to draw a useful distinction between elemental and psychic subjects, we might be able to solve both of our current interpretative problems.

24 On the soul's accidental location, see Physics IV.5: 212b11-12; On the presence of white in the surface of body, and the presence of knowledge in the soul, see Physics IV.3: 210a29-30.
Evidence supporting such a distinction is not far to seek, as discussions of the soul’s constitution found in the *GC* explicitly deny that such an explanatory principle might be composed solely of material elements and their mixtures. Just as importantly, Aristotle’s stated reasons for this denial rely heavily on questions of ontological subjecthood, and refer to common intuitions concerning the sorts of attributes that might intelligibly be attributed to merely elemental subjects. Hence, *GC* II.6 points out the absurdity of the Empedoclean claim that the soul is some combination of elemental bodies, which appears to entail that it can receive and house only those properties that might reasonably be thought to belong to earth, air, fire, or water. These properties, Aristotle claims, will not include attributes such as musicality and unmusicality, or alterations like remembering or forgetting, and such omissions will thus leave us unable to explain these basic features of human psychology.\(^{25}\)

In light of such observations, it seems that we have arrived at a coherent and reasonable explanation of the connection between mere position and Aristotle’s general sense of contact. If we adopt a literal reading of Aristotle’s *Physics* IV.3 claims concerning items such as knowledge, we will be perfectly able to say that there are at least *some* causes of change that are not immediately constituted from the more basic material powers associated with the elements and their compounds. Having established this possibility, we will then be able to argue that there are at least *some* causes of change that do not directly possess weights, as texts such as the *De Caelo* have already established that the attributes of lightness and heaviness are to be explained by reference to certain natural tendencies for elemental motion. At this point, however, it is only a short step to the denial of genuine place, as the wider context of *GC* I.6 has made it very clear that it means to appeal to a theoretically loaded sense of this term when drawing contrasts between full-fledged topological attributes and the merely relative locational predicates associated with position. Consequently, Aristotle’s employment of the conceptually thinner idea of position can be read as an attempt to avoid a notion of place which leads directly back to weight, and from weight to elemental constitutions and causal reciprocity.

At the same time as it avoids the undesirable features associated with Aristotelian places, this recognition of psychic subjecthood also provides content to the claim that unchanging causes of

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\(^{25}\) *GC* II.6: “And it would be absurd if the soul were composed of the elements, or were some one of them. For how will the alterations of the soul take place, for example, becoming musical and again unmusical, or remembering or forgetting? For it is clear that if the soul were fire only those attributes (*pathê*) would belong to it which belong to fire qua fire, and if it were mixed from them, only those attributes that are bodily (*ta sômatika*). But none of these are bodily.” (344a10-14).
change possess the sorts of relative locational attributes associated with position. Given that plant and animal souls are substantial forms or first actualities which in some wide sense belong to the material organisms they animate, at any rate, they are guaranteed to bear positional relations to the external items on which they operate. This, indeed, follows from Aristotle’s Physics IV claims that forms or essences possess accidental places closely related to the authoritative places of their bodily substrates, and from the claim that such bodily agents and their patients make contact with one another in an authoritative sense. From this point of view, in fact, we may even conceive of Aristotle’s division between governing and extended senses of contact as an attempt to accommodate non-bodily causes within a framework that both forbids action at a distance and employs spatial proximity as a necessary feature of complete causal explanations. On this purported solution, souls and their attributes will both possess the kinds of positions which normally require places and elemental constitutions while avoiding the implications associated with directly material causes.

Consequently, both Aristotle’s discussion of the extended sense of contact and his considered views on the soul give us some reason to accept the possibility of psychic subjects. But in fact, the strongest evidence for this claim comes only in GC1.7’s discussion of the extended sense of causal agency. Just as importantly, I believe, only consideration of this further discussion will allow us to successfully answer the three questions I earlier raised concerning Aristotle’s general notion of contact, and thus determine what positive content we should ascribe to this concept, to what objects it is intended to be applied, and how it is meant to relate to the authoritative sense of the term outlined earlier. With this in mind, let us now turn to our attention to the relevant texts.

IV. Unaffected Agents and Material Constitution

After a long dialectical investigation linking all authoritative instances of action and affection to a precisely defined relation of contrariety, the final paragraphs of GC1.7 turn again to the extended and non-reciprocal notion of efficient causation briefly sketched in the previous section. Interestingly enough, this discussion begins by reintroducing the roughly synonymous uses of acting and causing change that Aristotle introduced, and then abruptly set aside, in GC1.6.

And the same account ought to be accepted concerning acting and being affected (peri tou poiein kai paschein) as is accept concerning changing and being changed (tou kineisthai kai kinein). For we speak of that which causes
change in two ways. For it seems that the item in which the principle (archê) of change resides causes change (for the principle is first among the causes), and again, the same seems true of the last thing in the procession towards that which is changed and the generation itself. And the situation also seems similar with respect to that which acts (tou poioiôntos). For we say that both the doctor and the wine heal. But while nothing prevents the first changer from being unchanged (akinêton) during the change (and in some cases, this is even necessary), the last thing always causes change while being changed. And among agents, the first is unaffected (apathês), but the last is also itself affected (paschôn). (GC1.7: 324a24-34).

Originally, it will be recalled, these synonymous uses of acting and causing change were used to motivate the idea that there may in fact be unaffected agents corresponding to the unchanging changers introduced in Physic VIII. At that point, it seemed, these uses were set aside so that Aristotle might focus exclusively on the reciprocal affections most relevant to elemental interaction and the formation of higher-order material composites. Presumably, Aristotle now believes that he has sufficiently addressed such interactions, and is ready to resume his train of thought concerning the wider notion of causal action. Thus, he once again notes similarities between causes of change and agents, and immediately proceeds to draw conclusions on the basis of these similarities.

The relevant similarities here form a closely related trio. (1) Both changers and agents, it seems, are spoken of in two ways, and this difference, in turn, marks (2) a distinction between efficient causes that are and are not susceptible to change in the course of their activities. Just as importantly, (3) this difference is also tracked by a similarity in the relative positions these efficient causes occupy in their respective kinetic processes. Those changers and agents that are unchanged or unaffected stand at the very beginning of the relevant causal chains, and those that are changed and affected occupy a position just before the state or object that is actually transformed or brought into being.

In addition to noting these similarities, our current passage also identifies a doctor and the wine he uses to heal his patient as respective instances of unaffected and affected agents. But aside from these points, we are told little else concerning such unaffected agents in this text. Thus, we will have to proceed further in order to get a better sense of this extended notion of agency. The next few sections of text are very helpful on this point, and go a long way toward elucidating the relevant phenomenon.

For (gar) all those things that do not have the same matter (mé echein tēn autēn lutēn) act while remaining themselves unaffected. A doctor, for example, actively produces health without suffering anything at the hands of that which is made healthy. But the food acts and also suffers something itself, for it is either
interpreting just they are changes counter But and seldom what previous typically nourishment he does with whenever his As

Fortunately, this opening connective (“gar” or “for”), Aristotle intends this passage to begin explaining his previous statements that the physical universe includes unaffected agents, and that such agents, whenever present, stand at the beginning of their respective causal chains. This explanation begins with a novel generalization concerning matter: “All those things that do not have the same matter”, we are informed, are capable of acting while “remaining themselves unaffected.”

In support of this strange claim, Aristotle appeals to his previous example of a doctor, who is now said to be capable of healing various patients without being changed in the process, and presumably does so because he somehow possesses a different material constitution from the bodies on which he standardly works. This instance of unaffected agency is additionally contrasted with the food or nourishment that a doctor may use to heal a particular individual. These items, we are told, are typically counter-affected by the bodies they alter, and must therefore, according to Aristotle’s previous generalization, “have the same matter” as these bodies.

This opening series of claims raises a number of difficult questions. To begin with, we may wonder what it means to say that a particular doctor does not “have the same matter” as some further entity on which it acts. However exalted a status we may wish to assign to medical doctors, after all, we seldom claim that they have physical bodies compositionally dissimilar from those of their patients, and we reasonably believe that such doctors use these physical bodies in their characteristic activities. But likewise, and for the same reason, we also tend to think that the bodies of these doctors can be counter-affected by the tools they use and the organisms on which they operate. They may not suffer changes as radical as those undergone by their clients, but no one would take this to mean that they are incapable of cutting themselves, or being warmed by the bodies they massage or amputate.

In these respects, it seems, typical doctors are no different than the food, wine, and other tools that they use in healing their patients, and flagrantly contradict the somewhat strange claims Aristotle has just made concerning them. Consequently, it appears as though we must either find some novel way of interpreting the individuals whom Aristotle has just referred to as doctors, or some novel way of interpreting what it means for an item or entity to be counter-affected.

Fortunately, however, the very next sentence of our current passage offers an important clue as to what exactly is intended here. For immediately after making his initial claim concerning medical
practitioners, Aristotle abruptly reformulates it in terms of a contrast between the art of medicine, which he now refers to as the “principle” of the relevant change, and food, which he identifies as the “last agent,” and explicitly associates with contact.

And while (mea) the art of medicine (iatrike) is an agent as a principle (arche), the food (de) is an agent as the last thing, the thing that makes contact (haptomenon) with what it affects. (GC I.7: 324b3-4).

Now certainly, this reformulation of Aristotle’s initial claim would be rather useless, and do little more than add further difficulties to our current puzzlement, if we did not have independent reason to believe that it was in fact intended as a precisification of his original statement. But luckily, the careful and considered views of Physics II.3 provide us with strong evidence for just this conclusion. After laying out his so-called “four causes,” Aristotle states that when seeking explanations of various phenomena, it is “always necessary to seek the most precise (akroto) cause of each thing.” And in giving a concrete example of this procedure, he focuses on the case of house-building, and somewhat surprisingly suggests that it is the art of house-building itself, rather than a particular man or house-builder, that best meets this demand. This, he informs us, follows from the facts that the art of house-building is “prior” to these other explanatory factors, and that a man therefore “builds houses because he is a house-builder, and a because house-builder builds in virtue of the art of house-building.”

Despite the apparent difficulty of this claim, the reasoning behind it is straightforward. Aristotle believes, and for good reason, that house-builders are house-builders in virtue of their knowledge of house-building, and that this knowledge accordingly plays a central role in explaining the general facts that our world contains such individuals, who these individuals are, and so on. And among the latter class of explanations, this constitutive relation will presumably also explain a number of truths concerning specific existing house-builders and their house-building activities. Thus, the fact that a given individual is a good or bad builder is largely a matter of the degree to which he or she possesses such knowledge, and the times at which particular house-builders are actually performing operations of house-building will roughly correspond to those periods during which this knowledge is being actively employed. For this very reason, it seems, any specific actions taken during individual

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processes of house-building will also need to be explained by reference to this same knowledge, and the fact that an expert house-builder is performing various actions of hammering, sawing, and pouring concrete will ultimately be grounded in further truths concerning its cognitive content.

At this point, it is also worth noting that Aristotle takes the knowledge involved in any given expertise to be largely constituted by an appropriately detailed conception of the entity or outcome that this art typically produces. Hence, a house-builder is a house-builder primarily in virtue of possessing some appropriately detailed grasp of what houses are, and the explanation of an expert house-builder’s behavior will eventually bottom out in some reference to the “form” or “essence” that constitutes existing as a house. On these grounds, if a given builder is asked why he is laying the foundation in a particular fashion, or cutting a plank to a certain length, his answers will implicitly reflect an understanding of the fact that a house is a shelter of some kind, and an awareness that performing precisely these actions in this way will eventually produce a dwelling that is sturdy enough to protect various goods and individuals. Other individuals might well perform these operations because they have been told to do so by an expert, or because they have stumbled upon an action that constitutes part of an instance of house-building. But such individuals will neither be genuine house-builders, nor be acting as genuine house-builders, any more than a second-grader who inadvertently bisects an angle or constructs a basic Euclidean proof is acting as a mathematician.

This observation is important, as it enables us to comprehend why Aristotle takes there to be an important symmetry between instances of artistic production and the processes of elemental interaction that together constitute the most fundamental level of sublunary change. The cognitive grasp of houses possessed by a particular builder governs the series of changes that constitute an act of building no less than the heat of a particular fire governs the process that eventually leads to a boiling kettle of water, and in each case, the transformation in question can be intelligibly viewed as one in which an agent transfers some “form” or “essence” to a suitable patient. Hence, both can be subsumed under the same schema of assimilative causation, and we have good reason to believe that both may be analyzed into the same basic components of contact, acting, and being-affected.

Having unpacked all of this, we may now return to our initial GC text. As should be recalled, we temporarily turned away from this passage because we desired to better understand its strange claim that a doctor is not counter-affected by the materials upon which he works, and hoped that Aristotle’s
reformulation of this claim in terms of the art of medicine might somehow provide a clue to unraveling this statement. Now, it seems, we have enough materials at our disposal to accomplish this task. Even though Aristotle’s *Physica* example focuses exclusively on the case of a house-builder, after all, the relevant passage makes it clear that we are intended to draw generalizations from this case, applying it to similar instances of technical expertise. Our doctoring example is clearly an appropriate application of its lessons, and taking it as such allows us to grasp what Aristotle is up to here.

To see this, we must remember that Aristotle’s position on the causal priority of artistic expertise naturally permits him to explain certain facts concerning house-builders, doctors, and other artisans by reference to their respective forms of knowledge. As stated, this fact follows from the ontological character of the relevant priority relation, which entails that a given artisan’s expertise will largely consist in her possession of some appropriately related cognitive content, and so justifies a “transfer” principle that enables us to derive various truths concerning this expertise from her particular grasp of the knowledge in question. But by this same token, I maintain, Aristotle is also able to isolate those aspects of an individual that are directly related to this knowledge, and to make statements about a given artisan that track only those features that belong primarily to her art and its operation. For if a doctor is a doctor primarily on the basis of her knowledge, and this knowledge plays a governing role in the proceedings that constitute healing, there is a reasonably intelligible sense in which we might take the term “doctor” to refer exclusively to this knowledge and its substrate, and come to view all other entities and changes associated with activities of doctoring - up to and including the movements of a particular physician’s arms and legs - as tools employed by this governing principle.27

Although we may initially balk at this strange use of a perfectly ordinary word, it is worth noting that Aristotle is comfortable employing terms that are ordinarily used to pick out material individuals of certain kind to denote only those intelligible or functional characteristics that ultimately cause these individuals to be the beings they in fact are. On these grounds, *GC* 1.5 informs us that words such as flesh can be used either to refer to that “form” that makes a particular bit of stuff an instance of flesh,

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27 This roughly corresponds to the picture of artistic activity found in *Generation of Animals* I.12, which makes the artisan’s body a moved mover, and thus a means employed by a principle of motion rather than some intrinsic part of this principle of motion. “But the shape and the form come to be from him (i.e. the artisan), through the movement in the matter, and it is his soul, in which the form and the knowledge reside, which moves his hands or some other similar part of his body in some particular way... and his hands move the tools, and the tools move the material.” (730b14-24).
or to this bit of stuff itself, and exploits this ambiguity in the resolution of a puzzle concerning growth.\textsuperscript{28} Moreover, and closer to home, the passage immediately preceding our current \textit{GC}1.7 text observes that we either may refer to the agent or patient of any particular change in strictly material terms, or by means of the contrary most relevant to the transformation in question.

Consequently, it seems that the principle justifying this somewhat peculiar employment of the notion of a doctor is well in place by the time we reach our current passage, and that this fact, along with Aristotle’s immediate reformulation of his doctor centered claim in terms of the art of medicine, gives us solid ground from which to understand both his statement that doctors are not counter-affected while healing their patients, and his further claim that they do not “have the same matter” as the bodies on which they typically work. Crucially, though, our ability to make sense of such assertions is equally dependent upon our willingness to concede that the knowledge relevant to the art of doctoring is not housed in an elemental body of any sort. If our previous examination of contact, acting, and being affected has taught us anything, after all, it is that causal agency, reciprocal contact, and the possibility of counter-affection diverge only in those cases where the attributes or forms relevant to a particular change do not belong to subjects composed of the four elements.

If this argument has not fully convinced us that a doctor’s knowledge of medicine cannot belong to an elemental compound of any sort, Aristotle’s next move surely clinches the point.

\textit{And indeed, all those things that do not have their form in matter (\textit{mê en hulêi echei tên morphên}) are unaffected agents (\textit{apathê tôn poieitikôn}), but all those [that have it] in matter (\textit{en hulê}), are capable of being affected (\textit{pathêtika}).} (\textit{GC}1.7: 324b4-6).

Here, Aristotle reformulates his earlier generalization concerning agents that do not have the same matter as their patients in terms of a stronger claim concerning things “that do not have their form in matter” at all. But given the association between matter and the four elements that has been stressed since the very first sentence of \textit{GC}1.6, along with the recently established idea that the art of medicine is the primary agent in any particular instance of healing, we should have no problem understanding this current formulation as a restatement version of Aristotle’s earlier claim. For if being “in matter” is indeed a question of belonging to a subject with an elemental constitution, it follows that anything

\textsuperscript{28} \textit{GC} I.5: “Flesh, bone... and all other things which have a form in matter, are twofold (ditton). And both the matter and form are called flesh and bone.” (321b16-21).
that does not share the same matter as the bodies on which it typically acts will not be in matter, period. Hence, a doctor’s causally active grasp of health cannot possibly be housed in a elemental or material subject of any sort, and must belong to an entity of an altogether different kind.

On consideration, however, it must also be recognized that any provisos regarding elemental subjects will likewise apply to the material individuals that are particular human beings. This follows from the fact that such living organisms contain sublunary bodies as proper parts, along with Aristotle’s belief that all sublunary bodies must ultimately be composed of some combination of earth, air, fire, and water. Consequently, if the art of medicine were to belong directly to a single subject composed of a doctor’s body and soul, it would have to make reciprocal contact with the patients on which it acts, and would thus be susceptible to exactly the sort of counter-affection that is here being explicitly denied to it.

But for all of that, this art is still only a form or an attribute, and so has to belong to some subject if it is to exist at all. Thus, we must find some suitable entity to which it may be intelligibly assigned, an entity that is not composed of more basic material elements, but that nevertheless occupies place in the minimal sense required by the general form of contact that provides the prerequisite to all efficient causal activities.

Hence, we have again arrived at a difficulty that can only be solved by granting the reality of psychic subjecthood. The soul, after all, is not an elemental entity of any sort, and as the essence or actuality that primarily constitutes the living body that it animates, it is fully guaranteed to derivatively possess any locations occupied by this body, and to exist at all and only those times at which this body retains the capacities that constitute its life. Consequently, we have identified at least one item to which the general and non-reciprocal sense of contact is intended to apply, and ought to adopt a literal reading of those passages in which Aristotle ascribes attributes such as practical knowledge directly to souls or their parts.

**Conclusion: Material Subjects, Psychic Subjects, and Soul-Body Relations**

Having established all of this, we are finally in a position to answer the three questions posed during our earlier discussion of Aristotle's general sense of contact. To begin with the simplest of these, we

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29 See *GC II.7*
may now say unequivocally that the souls of certain living things exemplify the non-reciprocal form of contact introduced earlier. They do so by accidentally occupying the same locations as they animate, while nevertheless lacking the elemental constitution that makes reciprocal contact possible, and thus gaining all of the causal powers associated with being in place without inheriting any of the attendant possibilities for counter-affection. In addition, however, any attributes that belong to such psychic subjects will be derivatively capable of such non-reciprocal contact. Thus, a doctor’s knowledge, which touches external bodies in this extended sense, will be capable of successfully healing patients without thereby opening itself up to counter-affection.

Thankfully, determining the extension of this non-reciprocal form of contact also allows us to assign a relatively precise meaning to the general sense of the term. As it turns out, items are capable of contact either by being elemental bodies that directly occupy spatial locations, or by being the non-elemental essences or actualities of material bodies of this sort. And the same holds, in a derived sense, of any attributes that belong to either of these two subject types as their states or properties. Accordingly, then, Aristotle’s general notion of contact can be disjunctively defined as either (1) being, or being present in, an elemental body that has its limits together with some other elemental body; or (2) being, or being present in, a subject that is the immaterial essence or actuality of such an elemental body.

The third of our previous questions, which deals with the relationship between Aristotle’s general notion of contact and the authoritative sense of this term, is somewhat more difficult to answer concisely. Yet I believe that it may be satisfactorily addressed in a few short paragraphs, and that an adequate response to it also enables us to see why at least one of the two passages traditionally thought to deny psychic subjecthood cannot possibly be interpreted in the way that it standardly is, and in fact offers a far more subtle analysis of soul-body relations than is typically ascribed to Aristotle.

To understand how this is the case, it is important to note that there are at least two ways in which the authoritative senses of both contact and action are prior to the additional uses of these terms introduced in the *GC*, and thus at least two ways in which these non-reciprocal applications might plausibly be considered extensions of the central meanings of these words. The first of these is epistemological, for as Aristotle remarks in *GCI.6*, “practically all of the things we encounter change while being changed,” and in these instances, “it appears to be necessary for that which makes contact
to also be touched by that which touches it.” Hence, it seems that part of the authority of this first use of the term depends upon the fact that it is immediately and directly present to our senses, and so instantiates a more general notion in a fashion that we may then extend to less obvious cases involving agents that we cannot literally perceive.

In addition to this first, epistemological sense of priority, I believe that there is also a closely related form of ontological priority lurking in the general vicinity. To see this, it is important to realize that a large number of Aristotle’s extended cases of contact and causal action will both involve, and be in some sense materially dependent upon, the governing senses of these terms. Consequently, while it is possible for a builder’s knowledge of houses to make contact with, and act upon, the materials on which he works, this is possible only to the extent that this knowledge is present in his soul, and is thereby indirectly related to the body that this particular soul animates. For in the final analysis, a builder’s ability to build depends not only upon his knowledge of building, but on this knowledge’s further ability to govern and control an elemental body that is itself capable of directly touching, and directly acting upon, other physical materials.

When their “priority” is understood in this stronger fashion, I believe, these governing senses of contact and causal action allow us to offer a more accurate and sophisticated interpretation of those De Anima claims standardly taken to deny any possibility of psychic subjecthood. When Aristotle asks whether the affections of the soul are also common (koinon) to that which has it, or whether is there one that is unique (idion) to the soul itself, he gives what clearly looks like a negative response. But interestingly, this text’s examples of such “affections” include no references to the individual pieces of knowledge or conscious perceptual states of the sort that texts such as GC I.6-7 are intended to accommodate. Instead, Aristotle restricts himself to complete processes of getting angry, being courageous, and perceiving - operations that this chapter will go on to inform us require material components if they are to be accomplished - and makes no reference to the further possibility that such processes might turn out to involve uniquely psychic states and events as components.

If we take a moment to reflect on the broader context of this passage, however, this omission should not be surprising. After all, this is only the first chapter of the first book of the De Anima, and

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31 De Anima 403a3-16
Aristotle has yet to provide any real discussion of psychological activities such as perception or thought, or any analysis of what kinds of factors may be needed to adequately explain them. Rather, he is presenting a series of puzzles, along with a number of earlier opinions, in an attempt to ascertain the sorts of features an adequate account of soul must possess if it is to both retain the truths, and avoid the pitfalls, of these previous approaches. And as a glance through De Anima I confirms, Aristotle criticizes almost all of his predecessors for allowing their souls to perform various complete life activities without any need for bodily involvement and thus creating the false impression that psychic entities might be capable of carrying out such activities even without their bodies, or that any old soul might belong to any old body with no loss in functionality.

As such views provide the backdrop to our current passage, it seems that there is a relatively straightforward way to interpret both this puzzle and Aristotle’s response to it. For if we take this text’s references to acting, being affected, and contact as instances of the primary senses of these terms, and take the “authority” of these particular senses to rest on the idea that all extended forms of such phenomena must be in some sense mediated by their primary counterparts, Aristotle’s discussion here fully supports the results established by our analysis of GCI.6-7. All complete activities of getting angry, perceiving, or house-building will inevitably turn out to require bodily involvement, since disembodied souls can neither touch, nor interact with, the material items that constitute the final agents or immediate patients of such processes. But this is not to say that such components cannot involve states and events that do belong directly to souls, or to rule out the possibility that souls may touch, act upon, or be affected by their material environments in some indirect and extended sense. If my analysis of GCI.6-7 is correct, such indirect causal interactions will be positively required if we are to attain a complete and intelligibly unified account of the natural world.

To come full circle, then, we may say that Aristotelian souls both are and are not like axes and eyes as ordinarily understood. To the extent that they are systems of capacities which constitute and animate material bodies, they quite naturally require such bodies if they are ever to become active. And accordingly, all of their complete activities of anger, perception, house-building, and thought must be ascribed to the living organisms they animate. Yet unlike axes and eyes, which may be dulled or eventually ruined by the material items they engage with, the abilities involved in various psychic activities cannot be directly affected by their objects in this fashion. Rather, such souls are akin to axes
and eyes whose properties of sharpness and acuity remain untouched by their external environments, and will remain intact and uncompromised until the physical bodies they constitute are either tarnished or destroyed.

References