

# A Comparative Study of Aristotle and Edmund Husserl's Analyses of Time

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## ABSTRACT

The intent of this study is to discuss the most prominent points of agreement and disagreement between Aristotle and Edmund Husserl in their most important works on time, *Physics* and *The Phenomenology of Internal Time-Consciousness*, respectively. The major points of discussion are the relationship between time and motion, the now, awareness, self-awareness, and the quality of continuity belonging to time. The goal of this comparison is to use the Aristotelian influence on Husserl's writings to create a useful perspective from which to understand Husserl's thoughts on time. Similarly, an understanding of how Husserl is influenced by Aristotle in *The Phenomenology of Internal Time-Consciousness* sheds a unique and often surprising light on Aristotelian time. The results of this comparison can be summarized as thus: Aristotle and Husserl agree on what the contents of time are, but they disagree on both what the form of time is and how time is experienced.

## INTRODUCTION

An Aristotelian influence is pervasive throughout Edmund Husserl's writings and, specifically, throughout his writings on time. The goal of this study is to elucidate the major points in Husserl's analyses of time (predominantly, *The Phenomenology of Internal Time-Consciousness*) where he draws influence from Aristotle, as well as the most prominent points of divergence from the Aristotelian tradition.

To begin this comparison without any context would be difficult, so the first topic of discussion will be Aristotle's study of time in his major work on the topic: Book IV, Chapters 10 - 14 of *Physics*. Following this section will be a discussion of Husserl's *The Phenomenology of Internal Time-Consciousness* as compared to Aristotle's *Physics*.

## TIME IN ARISTOTLE'S PHYSICS

This section contains a discussion of the following assertions in Aristotle's *Physics*:

- Time is a measure of motion, and this measurement is of a dual nature
- Being-in-time requires both something that is aware and something to be aware of.
- The now (or the current "moment" of being-in-time) is a persisting state of dual-awareness
- These states of self-awareness are not a series of discrete mathematical points (or moments) on a line but a series of overlapping, continuous intervals

Aristotle claims in Book IV, Chapter 11 of *Physics* that time is "a number of motion fitting along the before-and-after" (Aristotle 122). That time is a number is evident to Aristotle, as "we judge the greater and less by number, and we judge a greater and less motion by time" (Aristotle 122). Further, it must fit along a before and after because "we say that time has happened whenever we take cognizance of the before and after in a motion" (Aristotle 121).

It is important to note here that Aristotle employs the following definition of the word "motion" from earlier in *Physics*: "the being-at-work-staying-itself of the potentially-active-or-acted-upon as such" (Aristotle 72). To rephrase this quote: motion, to Aristotle, is not just a particle moving from Point A to Point B, but *the engagement of a thing in the activity of what it is to be it*. Further, a *thing* to Aristotle is something *in nature*, which is to say something in motion or at rest (for Aristotle, something at rest is not a motionlessness thing, but a thing whose nature it is to move or be moved that is deprived of motion (Aristotle 31)). The only kinds of things that are not in motion or at rest, for Aristotle, are concepts or ideas, like a triangle or a society. And since all things in nature are in motion or at rest, and "motion [and rest] seem to be impossible without time" (Aristotle 72), all things in nature, by proxy, must be in time; *their engagement in what it is to be them is being measured*. This measurement, for

Aristotle, is the means by which we say things are fast or slow, or before or after.

Fast-and-slow and before-and-after (duration and chronology) are completely different measurements, and for time to be the measure both of them, the process of measurement must be of a dual nature. Aristotle addresses this issue by noting “for the motion to be in time means that both it and the being of it are measured by time (for it measures at the same time both the motion and the being of the motion, and this is its being-in-time).” (Aristotle 125) The measure of the motion is simply its duration--it is the temporal length of the event. The measure of the *being* of the motion, however, is the measure of the *position* of the duration along the before-and-after. It is in this way Aristotle means, “[N]ot only do we measure a motion by a time, but also a time by a motion, since they mark off one another’s boundaries. For the time marks off the motion as a number of it, but the motion marks off the time” (Aristotle 124). Time marks off the motion by assigning it a length, while motion marks off time by making possible a before and after through change (Cross 394); this is how both temporal length and temporal order are achieved simultaneously: a *dual* measurement.

From this it follows naturally that, for Aristotle, being-in-time requires both something that is aware and something to be aware of. If time is a measurement of motion, then there must be a measurer and there must be something to measure, “[F]or if it is impossible for there to be a counter, it is also impossible for there to be anything counted; so it is clear that neither can there be a number” (Aristotle 129). Further, for Aristotle, the existence of time requires not only the presence of a counter but also the *engagement* of the counter with the counted. He makes this clear in a quote provided above: “we say that time has happened whenever we *take cognizance* of the before and after in a motion.”

This “taking cognizance,” for Aristotle, is “the now”. Notice that Aristotle does not say that the now is *the time* when one takes cognizance of a motion but simply *the taking cognizance* of a motion itself. Aristotle makes it clear that he does not believe the now to be a *part* of time, but something that is *in* time and necessary to its existence.

He makes this point explicitly when he claims, “if any composite thing is to be, it is necessary that while it is, all or some of its parts must be; but though time is composite, part of it has happened and part of it is going to be, while none of it is. The now is no part of it. For the part measures the whole, and the whole must be composed of the parts, but time does not seem to be composed of nows” (Aristotle 119). Aristotle is not denying the existence of the now, but he is denying that it is part of time.

Aristotle further explains the nature of the now by discussing whether it is always self-remaining or always other-and-other; for it seems it should be one or the other. He claims that for the now to always be other and other is impossible:

For if it is always other and other, while no parts of time which are other and other can be at the same time, and if the previous now is not, but is necessarily then annihilated, then the nows will not be at the same time as one another, but the previous one must always be annihilated. And in itself it is not possible for it to be annihilated, since then it is, but the previous now is not capable of being annihilated in another now. For take it as impossible that the nows be touching each other, just as it is impossible that a point can touch a point. Then if it is annihilated not in the succeeding now, but in another, then it would be at the same time as the infinitely many nows between them: but this is impossible. (Aristotle 119)

If the now is annihilated during its own duration, it will exist as and not exist at the same time – if the now is annihilated in another now, then it is no longer the same now. The now being always other and other results in an impossible state of affairs. But the now being always self-remaining is similarly impossible for Aristotle because “if being coincident in time, and neither before nor after, means to be in one and the same now, and if the things before and the things after are in this now, then the things that happened ten-thousand years ago would be at the same time as the things happening today” (Aristotle 120).

The solution to this impasse at which Aristotle eventually arrives is that the now is both other and other *and* self-remaining. This is not a contradiction because Aristotle employs the word “is” in two different ways. It is always other and other in that it is always at a different when, while it is always self-remaining in that it is always itself; it is always the now. He compares the now to a stick floating down a river: it never changes insofar as it is always the same stick, but it is constantly changing in location. Notice again that Aristotle is not saying the now is a part of time or of motion just as he wouldn’t say the stick is a part of the river or a part of its distance traveled down the river. It is simply something that is constantly *carried along* throughout our experiences: “The now is manifest as the thing carried along” (Aristotle 123).

To Aristotle, the now is necessary to the existence of time: “It is clear both that, if there were no time, there would be no now, and, if there were no now, there would be no time” (Aristotle 123). This is clear to Aristotle because he defines time as a number of motion fitting along the before-and-after, and “the now marks off the motion into a before-and-after” (Aristotle 123). Without this marker, or *divider*, as Aristotle also calls it, there would be no

before-and-after, and thus no time. But Aristotle is revealing something more in the above quotation. Remember, according to Aristotle, time has happened when one takes cognizance of a before and after in a motion. If the now is what marks motion into a before and after, it is clear that Aristotle believes this marker to be cognizance of before and after in motion, or, simply, cognizance of change.

Further, this cognizance of change must be two-fold. Recall that time is a measure of both duration and position, or of the motion and the being of the motion. This requires an awareness of the motion, but also an awareness of the motion *with regard to oneself*. For time to be marked off into a before-and-after, not only must a constant awareness of change be maintained, but also so must a constant state of awareness of what has happened to one before and what may happen after. Before and after are relative; they do not belong to the motion but to the measurer of the motion. For instance, my birthday may be before a motion, but your birthday may be after; the same motion can thus be potentially marked off temporally in different ways. It is for this reason that Aristotle accounts for not only the necessity of awareness to the existence of time but also the necessity of *self-awareness*. It is this dual-awareness that is the divider of motion into the before-and-after, and it is this dual-awareness that is manifest as the thing carried along throughout our experiences. Furthermore, since Aristotle defines the now as a divider of motion into a before-and-after and the thing carried along, it is clear that, for Aristotle, the now is a persisting state of dual-awareness.

At this point it should be clear that a moment in time, for Aristotle, is not an empty, dimensionless point on a line of infinite such points; it is full and enriched with meaning on its own. Aristotle supports this notion by claiming: “[T]ime is a number not as of the same point, which is a beginning and an end, but rather as the extremities of a line” (Aristotle 123). A dimensionless now-point has no place in Aristotle’s depiction of time. Time, at every moment, is already enriched with a before-and-after: “[T]he before and after will also be in time; for in that in which the now is, the separation from the now is also” (Aristotle 129). Every moment has an inextricable past and future. The now is simply a divider between them manifest as dual awareness. This perpetual existence of a before-and-after allows for a portrait of Aristotelian time that is not a set of discrete points along a line, but a set of continuous, overlapping intervals. The before was the last after, and the after is the next before (Glazebrook 197).

A natural criticism of this interpretation of Aristotle would be: “How could the very first moment in time have existed if it must have already had something before it?” Aristotle does not answer this question directly, but since he has already established time to be continuous rather than discrete (Dimock 914), and thus infinitely divisible (at least potentially), it is unlikely that he would take seriously the notion of a beginning-point of time, “[F]or every line is always divisible, and so likewise is time” (Aristotle 124). Furthermore, Aristotle would object to the *singularity* of a beginning-point in time. For Aristotle, the set of natural numbers (1, 2, 3, etc.) can only describe discrete multitudes of things, but time is a measurement of a continuous *magnitude*: “Every magnitude is continuous, [and] the motion follows the magnitude. For through the magnitude’s being continuous, the motion too is continuous, and through the motion the time” (Aristotle 121). Thus, time cannot be accurately described by natural numbers. “The smallest number in multitude is two or one, but in magnitude there is no smallest” (Aristotle 124). This should make it clear that Aristotle does not believe that a beginning of time is a notion worth discussing (Rudavsky 26).

So far, it has been made clear that Aristotle defines time as a measurement of two characteristics of motion: duration and position along a before-and-after. This definition, by its very nature, requires both a measurer and something to be measured. Further, the Aristotelian now is manifest as one’s persisting state of awareness of both the measured thing and oneself; it is a divider that separates the before and after. Thus, a moment in time for Aristotle is not a dimensionless geometric point but an interval of awareness of a period that is already replete with both a past and a future.

## TIME IN HUSSERL’S *THE PHENOMENOLOGY OF INTERNAL TIME-CONSCIOUSNESS*

This section contains an examination of some of the main topics in Husserl’s *The Phenomenology of Internal Time-Consciousness* and how they agree or disagree with Aristotle’s *Physics* with reference to the above analysis.

The following three topics in *The Phenomenology of Internal Time-Consciousness* will be addressed:

- The scope and intent of the study
- The relationship of time and motion: temporal Objects and the flux
- Protention, retention, and the now

Husserl begins his inquiry by indicating its scope and intent, and, in both, there is similarity to Aristotle’s *Physics*. Husserl immediately excludes from the scope of his study the possibility of *objective* time (Held 328), or the existence of a world-time *outside* of our experience: “Just as a real thing or the real world is not a phenomenological datum, so also world-time, real time, the time of nature in the sense of natural science including

psychology as the natural science of the psychical is not such a datum” (Husserl 23). Aristotle similarly discounts this notion, as noted above; time is something that measures and it is impossible without a measurer. There is a difference, however: while Aristotle dismisses the existence of time without the presence of a soul entirely, Husserl does not; he only excludes it from the scope of his study.

By excluding so-called real time from the scope of *The Phenomenology of Internal Time-Consciousness*, Husserl begins to reveal his intent:

When we speak of the analysis of time-consciousness, of the temporal character of objects of perception, memory, and expectation, it may seem, to be sure, as if we assume the objective flow of time, and then really study only the subjective conditions of the possibility of an intuition of time and a true knowledge of time. What we accept, however, is not the existence of a world-time, the existence of a concrete duration, and the like, but time and duration appearing as such. (Husserl 23)

Husserl is not interested in the neurological activity associated with the perception of objects or the storage and retrieval of memory; he is interested in the *phenomena out of which* intuitions of these concepts arise.

In explaining the intent of his study, Husserl actually criticizes Aristotle: “To put it briefly, the form of time is itself neither the content of time nor is it a complex of new content added to the time-content in some fashion or other” (Husserl 40). In other words, to phrase it in an Aristotelian manner, Husserl is not interested in time insofar as the *result* of the measuring (a number, as Aristotle refers to it), but as the *activity* of the measuring. This is the *form* of time, (the what-it-is-to-be time disclosed in speech, to use the Aristotelian definition of the word “form”) in which Husserl is interested. Husserl agrees with Aristotle that time is the duration and succession of objects (the how-long and the before-and-after), but only in the sense that duration and succession compose time’s contents. The target of Husserl’s inquiry is not the content of time but the activity of the consciousness of time: “a completely new question arises, namely, how in, in addition to ‘temporal Objects,’ both immanent and transcendent, is time itself, the duration and succession of Objects, constituted?” (Husserl 42). This will be a persisting theme in this comparative analysis; Husserl is often influenced by Aristotle’s explanation of *what* our experience of time contains, but he diverges from the Aristotelian tradition in his analysis of *how* time is experienced.

Husserl elaborates on the scope of his study by establishing, like Aristotle, that all things are in time; their identity as things, and our own identity, depends on it. “To be sure, we also assume an existing time; this however, is not the time of the world experience but the immanent time of the flow of consciousness. The evidence that consciousness of a tonal process, a melody, exhibits a succession even as I hear it is such as to make every doubt or denial appear senseless” (Husserl 23). A thing in time, in Husserlian terms, is a temporal Object. Husserl describes temporal Objects as follows: “Objects of this kind are constituted in a multiplicity of immanent data and apprehensions which themselves run off as a succession” (Husserl 42). To rephrase it in an Aristotelian manner, a temporal Object is something that is in motion, or something that is engaged in being-at-work-itself-staying-itself, and exists in a duration (as “running off”) and along a before-and-after (as a succession).

One of the central questions Husserl endeavors to answer in *The Phenomenology of Internal Time-Consciousness* is the way the temporality of temporal Objects is established:

We try to clarify the *a priori* of time by investigating the time-consciousness, by bringing its essential constitution to light and, possibly, by setting forth the content of apprehension and act-characters pertaining specifically to time, to which content and characters the *a priori* characters of time are essentially due. Naturally, I am referring here to self-evident laws such as the following: (1) that the fixed temporal order is that of an infinite, two-dimensional series; (2) that two different times can never be conjoint; (3) that their relation is a non-simultaneous one; (4) that there is transitivity, that to every time belongs an earlier and a later, etc. (Husserl 29)

Notice that, in listing some of the characteristics of time he intends to investigate, Husserl enumerates four main components of Aristotelian time and the Aristotelian now: time is infinite and is two-dimensional in its nature, two nows cannot touch each other, nows are non-simultaneous, and time fits along a before-and-after. Husserl’s *prima facie* laws of temporality are nearly identical to Aristotle’s (as noted in the previous section).

This central question is not to be confused with the *origin of temporality* of temporal objects, or, to rephrase, their beginning of being-in-time. Husserl agrees with Aristotle that a beginning to being-in-time is unthinkable and, further, irrelevant:

We are concerned with reality only insofar as it is intended, represented, intuited, or conceptually thought. With reference to the problem of time, this implies that we are interested in lived experiences of time. That these *lived experiences* themselves are temporally determined in an Objective sense, *that they belong in the world of things as psychical subjects*, their *efficacy*, their empirical origin and their being--that does not concern us, of that we know nothing. (Husserl 28-

29)

So far, it has been established that the intent and the scope of Husserl's study of time betray an Aristotelian influence. Husserl's focus on duration and succession as the contents of time and his insistence on the exclusion of objective time from his investigation both mirror Aristotle's discussion of time in the *Physics*. Husserl's focus on the *activity of time-consciousness*, however, is where he begins to depart significantly from the Aristotelian tradition.

This departure is made explicit in the following quote: "All representations of a direction, a passage, or a distance--in short, everything which includes the comparison of several elements and expresses the relation between them--can be conceived only as the product of a temporally-comprehensive act of cognition." Aristotle makes it clear in the *Physics* that he believes time to be derivative of motion, or change (Tejera 111), but Husserl is saying the opposite in the above quote: not only motion, but *all plurality*, is derivative of time-consciousness. If *any multiplicity of any kind* is to be conceived, it must be conceived as being in time; it requires a *temporal interval* in which to exist. This temporal interval, for Husserl, is maintained by constant activity of time-consciousness.

A critique of this interpretation of Husserl would be: "If motion is dependent upon the activity time-consciousness for its existence, then in what temporal interval does the activity of time-consciousness take place? It seems that a 'temporally-comprehensive act of cognition' requires a temporal interval, and a temporal interval requires a temporally-comprehensive act of cognition. By this reasoning, the precursor to objectification itself must be objectified before it can exist. Does this not result in fatal circularity?" Husserl anticipates this problem: "Such representations would all be impossible if the act of representation itself were completely merged in temporal succession. On this interpretation, the assumption that the intuition of a temporal interval takes place in a now, in a temporal point, appears to be self-evident and altogether inescapable" (Husserl, page 40-41). This is Husserl's solution: temporally-comprehensive acts of cognition do not happen in a succession; they exist wholly in one now-point, and time is a stream of these now-points. These now-points are *unified wholes, which compose time*. "In general, it appears as a matter of course that every consciousness which concerns any whole or any plurality of distinguishable moments (therefore, any consciousness of relation and complexions) encompasses its object in an indivisible temporal point" (Husserl 40-41).

Husserl seems to be contradicting himself in his solution to the aforementioned circularity problem. If all representations of a passage require a temporal interval in which to exist, why must not the passage of *time itself* similarly exist in a temporal interval? He answers this question as follows:

In principle, every phase of alteration can broaden into something static, every phase of the static can lead to an alteration. If in comparison therewith, we now consider the constitutive phenomena, we find a flux, and every phase of this flux is a continuity of shading. However, in principle, no phase of this flux is to be broadened out to a continuous succession; therefore, the flux should not be thought to be so transformed that this phase is extended in identity with itself. Quite the contrary, we find necessarily and essentially a flux of continuous 'alteration,' and this alteration has the absurd property that it flows exactly as it flows and can flow neither 'more swiftly' nor 'more slowly.' Consequently, any Object which is altered is lacking here, and inasmuch as in every process 'something' proceeds, it is not a question here of a process. There is nothing here which is altered, and therefore it makes no sense to speak here of something that endures. It is also senseless, therefore, to wish to find anything that in a duration is not once altered. (Husserl 99)

In explaining Husserl's response to the circularity problem, it is important to note that he, like Aristotle, holds the consciousness of time, or temporally-comprehensive acts of cognition (not the *content* of this cognition) to be in constant flux. Husserl states this explicitly: "We must distinguish at all times: consciousness (flux), appearance (immanent Object), and transcendent [temporal] Object (if it is not the primary content of an immanent Object)" (Husserl 101). However, the "absurdity," as Husserl calls it, of the flux is its inherent *constancy*. Again, like Aristotle, Husserl holds time to be constant in its rate of flow, never moving "'more swiftly' or 'more slowly'". Aristotle makes an identical move in *Physics*: "Fast or slow it is not, for neither is the number by which we count anything fast or slow" (Aristotle 124). It is this *constancy* of flow that makes time-consciousness different from all other kinds of movement; its inalterability is what enables it to elude objectification. It ineluctably endures in its fundamental lack of endurance. This paradoxical *singularity* of time-consciousness is what compels Husserl to classify it as a universal, capable of being encompassed by the now. This is how Husserl deflects the accusation of circularity: time-consciousness does not require a temporal interval in which to exist because it is never *objectified*, or run off in a succession. Time-consciousness exists as a persisting unity in constant flux and does not require a temporal interval in which to subsist; Husserl would say that time-consciousness does not *subsist* at all--it is not a *thing*. To admit the subsistence of something is to admit that it *is* something, that it can be grasped.

Husserl claims (as quoted above) that we must at all times distinguish between time-consciousness (the flux), appearance, and temporal Objects. So far the nature of Husserlian time-consciousness and temporal Objects, and their similarities to and differences from analogous concepts in *Physics* have been established. What is left to investigate is *appearance*; it is in this final comparison between *Physics* and *The Phenomenology of Internal Time-Consciousness* that the Husserlian now, protention, and retention will be discussed.

The Husserlian now is manifest as appearance, or the immanent Object. As the above discussion of time-consciousness suggests, Husserl, like Aristotle, does not hold the now to be dimensionless, but a continuum unto itself which contains “unified wholes” of time-consciousness: “Immanent time is constituted as one for all immanent Objects and processes. Correlatively, the consciousness of time of immanent things is single. The ‘all-together,’ the ‘all-at-once,’ of the actual primal sensations is all-embracing” (Husserl 102-103). Also like Aristotle, Husserl illustrates the now as both constantly changing and self-identical: “Primal sensations have their continuous ‘one after the other’ in the sense of a continuous running-off, and primal sensations have their all-together, their ‘all-at-once.’” His explanation of the now’s “all-at-once” is similar to Aristotle’s: it is always the same insofar as its form. “According to its form, consciousness as consciousness of primal sensation is identical” (Husserl 103). However, his explanation of the now’s character of being “one-after-the-other” differs from Aristotle. Recall that Aristotle defined the now as a divider that is manifest as dual-awareness. It is always other-and-other insofar as its location along the before-and-after. The Husserlian now, however, is other-and-other insofar as its *contents*. For Husserl, the now is not a divider between moments—it *is* a moment. He compares the now to our visual field; the expanse of the field itself is always the same no matter where one looks, but its contents are constantly changing.

It has been established so far that the Husserlian now is self-identical with reference to its form, but ephemeral insofar as its contents. It has not yet been made clear, however, what the form of the Husserlian now *is*, or what its contents are. Husserl answers both questions in his discussion of retention and protention.

In Lanei Rodemeyer’s article “Developments in the Theory of Time-Consciousness: an Analysis of Protention,” in *The New Husserl*, he explicates the contents of the Husserlian now: “Keep in mind that Husserl considered the notion of a mathematical ‘now-point’ only a fiction...My intuition ‘now’ necessarily extends ‘forward’ into the immediate future, as well as ‘back’ into the just-past. My experience of ‘now’ is not at all of a point (nor of a primal impression), but instead already contains aspects of it which are futural and past, namely, protention and retention.” (Rodemeyer 128) Just as Aristotle’s depiction of a moment in time contains an ever-present before-and-after to account for the *continuity* of our temporal experience (the after is the next before and the before was the last after), so does Husserl with his concepts of protention and retention. But Husserl not only uses these concepts to account for continuity in experience, but also to account for *contextualization* in experience.

Contextualization is necessary to our functioning in the world. To live outside of a constantly modified framework consisting of one’s identity, one’s perspectives, one’s culture, etc. would result in a state of utter bewilderment, of immobility. This state is unimaginable. Husserl insists for this reason that with every instance of intentionality, or directedness toward something, (or, equivalently, with every now) an auxiliary intentionality, which shapes the context of whatever one is directed toward must be present; our *memory* must be influencing our current experience. This constant influence of our memory on our engagement with the world is, for Husserl, of a dual nature; this auxiliary intentionality is a “double intentionality of recollection” (Husserl 77). One side of this double intentionality is retention, and the other is protention.

A distinction must be drawn between retention and another Husserlian concept, recollection. Retention, or primary remembrance, is the remembrance of the just-past; it is our living present. “To the ‘impression,’ ‘primary remembrance,’ or, as we say, retention, is joined” (Husserl 51). It is beyond doubt that what is retained actually occurred. “Its being just-past is not mere opinion but a given fact, self-given and therefore perceived” (Husserl 58). Recollection, however, is simply the presentification of an earlier experience; it is the conjuring of an image that may or may not have taken place in the way it appears. Husserl also calls this act secondary remembrance. “In contrast [to retention], the temporal present in recollection is remembered, presentified. And the past is remembered in the same way, presentified but not perceived. It is not the primarily given and intuited past” (Husserl 58). Husserl uses a simile to illustrate retention: “We [characterize] primary remembrance or retention as a comet’s tail which is joined to actual perception. Secondary remembrance is completely different from this” (Husserl 57).

It would be erroneous, according to Husserl, to imagine past recollections as being indifferent to the constant stream of retentions, which follow them (Fischer 348). To quote Husserl:

Naturally, the whole is reproduced, not only the then present of consciousness with its flux but ‘implicitly’ the whole stream of consciousness up to the living present. This means that as an essential *a priori* phenomenological formation, memory is in a continuous flux because conscious life is in constant flux and is not merely fitted member by member into the chain. Rather, everything new reacts on the old; its forward-moving intention is fulfilled and determined thereby,

and this gives the reproduction a definite coloring. (Husserl 78)

This “continuous flux” of memory illustrates one of the two aspects of Husserl’s double-intentionality of recollection: the *past-oriented* aspect. Our now constantly reshapes our past; over time, our memories become more and more tinted by our new experiences. Just as, when an adult visits a house he or she hasn’t visited since childhood, it seems like a different house (even if the house hasn’t changed at all in the interim), so too do the objects of our *memory* change over time. It is in this manner that our retentions (our most recent, not yet Objectified memories) affect our older memories, and, as a consequence, we are continually *re-contextualized*.

It may seem at this point that in his discussion of recollection Husserl is digressing from his original intention to investigate not the psychological aspect of temporality, but the phenomena, which trigger our intuition of temporality. However, in Husserl’s discussion of the second, futural aspect of the double intentionality of recollection, protention, he makes it clear why the phenomena of retention and recollection (as opposed to the physiological or neurological function of memory, which will not be discussed) must be considered as necessary components of time-consciousness and why memory, as a constitutive element of the activity of time-consciousness, is, itself, a fundamental phenomenon.

The futural aspect of Husserl’s double intentionality of recollection behaves in a way opposite of the past-oriented aspect, as one might suspect; while our memory is constantly and necessarily tinted by the now, the now is constantly and necessarily tinted by our memory. “Every act of memory contains intentions of expectation whose fulfillment lead up to the present” (Husserl 76). Just as the now modifies the context of our memory, our memory modifies (in fact, *creates*) the context of the now. This context is created through *expectation*. For Husserl, to be alive is to expect to be alive. One is not continually surprised by the next moment; the next moment is already expected, and when it arrives it is pervaded by one’s expectations. Of course, this doesn’t mean that one is never surprised:

Here Husserl says that, if what I am expecting does not occur, there remains an empty protention that is not fulfilled. In the cases of specific events, I will expect the ongoing event to continue. If it does not, then I am no longer dealing with fulfilled but instead with empty protentions, which will then adjust themselves according to the next situation [through the function of retention]. Thus the very first ‘moment’ of a completely new situation will not be apprehended as fulfilled until it is part of my retention, when the interrelation of retention and protention will once again allow me to form protentions toward the continuance of this new situation...The ‘frame’ of protention, although most often fulfilled through an interrelation with retentions where a known situation is continuing, is an openness to the ever-new, even if what is ‘new’ is usually predictable. (Rodemeyer 139)

This quotation makes explicit the point that the role of expectation in the activity of time-consciousness does not assume any veracity in its content; the accuracy of protention is evaluated in retention and recollection. It simply provides a living context in which we can live; it supplies the futural side of our temporal interval, or the Aristotelian “after”. “Through these retentions and protentions, the actual content of the stream is joined together” (Husserl 111). A criticism of this interpretation would be “How does this interpretation account for complete surprise?” I believe Husserl would contend in response that complete surprise is not possible; if you always find yourself *alive*, you’re never completely surprised. “What is determined is only that after all something will come” (Husserl 142).

Through protention and retention, Husserl creates a portrait of time that, like Aristotle’s, is always, even in the living now, complete with a before and after. Immanent Objects have the character of having just been an after, albeit only in expectation, and their entrance into retention is never a surprise to us; it is the fulfillment of an expectation we already had. Then, when these retentions “run off” into recollection, they are modified through further experience. “These protentions were not only present as intercepting, they have also been intercepted. They have been fulfilled, and we are aware of them in recollection. Fulfillment in recollective consciousness is re-fulfillment” (Husserl 76).

For Husserl, protention and retention supply time not only with continuity, as the ever-present before-and-after supplies Aristotelian time with continuity, but with *context*. “The foreground is nothing without the background; the appearing side is nothing without the non-appearing. It is the same with regard to the unity of time-consciousness--the duration reproduced is the foreground; the classifying intentions make us aware of a background, a temporal background” (Husserl 78-79). This is where Husserl diverges from Aristotle in reference to the before-and-after and their relationship to the now.

With an understanding of protention and retention, or the *content* of the Husserlian now, the nature of what the Husserlian now *is itself* comes into focus. As stated earlier, the Husserlian now is not a point; it is a “unified whole” with a past and future that continually overlap each other. It should be clear, then, that time-consciousness,

for Husserl, is not a purely passive process; there is not a point in the results of Husserl's investigation of time-consciousness that does not involve our active engagement with the world. Everything that is expected by one is expected to happen *to one*; data that are kept in one's retentions are data that were just present *to one*. This suggests the final characteristic of the now and the final comparison with Aristotelian time which will be discussed: the pervading quality of *self-awareness* belonging to the now.

It was discussed earlier that the Aristotelian now is manifest as dual-awareness: awareness of one's surroundings and self-awareness. The Husserlian now is similar, except that, just as he criticizes Aristotle by drawing a distinction between the form of time and the content of time, he draws a distinction between the form of the now and the content of the now. The content of the Husserlian now is the content of the current protention and retention. The form of the now is the *activity* of protention and retention.

This activity, like the activity of the Aristotelian now, implies a persisting awareness of both one's surroundings (the object of fulfillment in protention and re-fulfillment in retention) and oneself (the one who is fulfilled). Dan Zahavi makes this clear in his article, "Inner Time-Consciousness and Pre-Reflective Self-awareness": "This interpretation is confirmed by Husserl in the manuscript C 10 (1931), where he speaks of self-affection as an essential, pervasive, and necessary feature of the functioning ego, and in the manuscript C 16 (1931-33), where he adds that I am ceaselessly (*unaufhorlich*) affected by myself...Nothing can be present *to me* unless I am *self-aware*" (Zahavi 173).

At this point, the form of both the Husserlian now and Husserlian being-in-time itself come into full view. The form of the Husserlian now is an activity of both predictive and memorial character in which awareness of oneself and one's surroundings unite in a "unified whole" to form an appearance. These appearances peel off in a succession to form temporal objects. The unity of these two processes, the activity of the now and the succession of nows, constitute the activity of being-in-time.

## CONCLUSIONS

In the above discussion of Husserl's *The Phenomenology of Internal Time-Consciousness*, the influence of Aristotle on Husserl's thought is evident. Husserl agrees with Aristotle that all things (temporal Objects) must be in time, and that what time measures, or the phenomena out of which our intuition of time arises, are duration and succession. Further, Husserl, like Aristotle, does not discuss Objective time, or time outside of our experience; Aristotle discards the notion entirely, and Husserl declares it to be outside the scope of his study. Similarly, Husserl agrees with Aristotle that the beginning of time is an irrelevant concept but by different reasoning. Husserl maintains that the only perspective from which we can investigate time is our own experience, which has always been already immersed in time, so a beginning of time is unknowable; Aristotle does not take the idea seriously because time, for him, is of a magnitude and thus indivisible. No amount of divisions into smaller and smaller pieces, according to Aristotle, would yield any single point in time, much less a beginning point.

Husserl's major departures from the Aristotelian tradition are his claim that motion is derivative of time, and his insistence upon investigating the activity of time-consciousness as opposed to its contents. Husserl's idea that motion is derivative of time leads him to the conclusion that the now is not simply a divider which is separate from time, as Aristotle understands it, but a unified whole that has content, but does not run off in a succession. His description of the now's contents (the contents of retentions and protentions) leads him to describing the activity of retention and protention themselves, and thus the activity of time-consciousness, or the form of the flux. Husserl's retention and protention are similar to Aristotle's before-and-after in that they establish continuity in our experience in time, but they go further by establishing context as well. That protention and retention require both awareness and self-awareness is also comparable to Aristotle's understanding of time. If the duration and succession of a motion is to be measured, it must be measured *by one*, and with reference to oneself.

## REFERENCES

- Aristotle's Physics. Ed. Joe Sachs. New Brunswick, NJ: Rutgers University Press, 1995.
- Cross, Richard. "Four-Dimensionalism and Identity Across Time: Henry of Ghent vs. Bonaventure." *Journal of the History of Philosophy* 37.3 (1999): 394.
- Dimock, Wai-chee. "Non-Newtonian Time: Robert Lowell, Roman History, Vietnam War." *American Literature* 74.4 (2002): 914.
- Fischer, Luke. "Derrida and Husserl on Time." *Forum Philosophicum* 13.1 (2008): 348.
- Glazebrook, Trish. "Zeno Against Mathematical Physics." *Journal of the History of Ideas* 62.2 (2001): 197.
- Held, Klaus. "Phenomenology of 'Authentic Time' in Husserl and Heidegger." *International Journal of Philosophical Studies* 15.3 (2007): 328.



- Husserl, Edmund. *The Phenomenology of Internal Time-Consciousness*. Ed. James Churchill. Bloomington, IN: Indiana University Press, 1964.
- Rodemeyer, Lanei. "Developments in the Theory of Time-Consciousness: An Analysis in Protention". *The New Husserl*. Bloomington: Indiana University Press, 2003.
- Rudavsky, T.M. "Creation, Time, and Infinity in Gersodines". *Journal of the History of Philosophy* 26.1 (1988): 26.
- Tejera, V. Rev. of "Tempo, Coscienza e Essere nella filosofia di Aristotele". *Journal of the History of Philosophy*, January 1973: 111.
- Zahavi, Dan. "Inner Time-Consciousness and Pre-Reflective Self-Awareness". *The New Husserl*. Bloomington: Indiana University Press, 2003.