

*Hancock and Gardner examine the nature of time as we Muggles use it versus the way the wizards in Harry Potter use it. The question is raised: Can we Muggles use the concept of time in a better, magical way rather than the normal way that rules our day?*

PETER A. HANCOCK  
AND MICHELLE K. GARDNER

## Time and Time Again

### Muggle's Watch, the Wizard's Clock<sup>1</sup>



**J**UST WHEN WE think we understand what time is, curious things happen, and we begin to realize that time is actually not at all what we considered it to be. For Harry Potter, as well, time changes and distorts along with the different challenges he meets and the different adventures he has. In recalling the terrified, pleading screams of his mother (*Prisoner of Azkaban*) and watching his godfather's fall through the ragged veil (*Harry Potter and the Order of the Phoenix*), Harry has experienced some of the subtleties of time in its many different forms. While

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<sup>1</sup> A brief note on the title: the present title is a multi-layered metaphor. "Time and Time Again" refers to *time* in Muggle reality, and *time again* refers to time as it is dealt with by Harry and his friends in the wizarding world. "Muggle's watch" is not only a reference to the idea of our time as a simple, linear Newtonian-inspired dimension, but also refers to our own observations as Muggles within the Harry Potter series and our own Muggle function in reading the texts and watching the movies. "Wizard's clock" refers to the way time is treated in Harry's world. However, in British English, to *clock* is to see someone as in "I clocked him." However, it is also an informal term for the face "wipe that smile off your clock." Thus, we are watching the faces and the actions of the characters in the wizarding world.



the Muggle world continues to believe that time is a simple, linear experience, the wizarding world knows time is much more. Remember the frenzied anticipation of the Hogwarts student body leading up to the Yule Ball (*Harry Potter and the Goblet of Fire*), or the long, drawn-out boredom of sitting in the History of Magic class with Professor Binns, not knowing when and if the lecture would ever end (*Harry Potter and the Sorcerer's Stone*)? Is time then just a simple, linear experience? Certainly not. In actuality, time does very strange things at the most critical points in our lives. "For a second that contained an eternity, Harry stared into Cedric's face..." (*Goblet of Fire* 638). Was Harry's awareness of time here just another tick of the clock? Time changes with the context and nature of the things that are happening to all of us. It speeds up and slows down according to the challenges of our existence. In this essay, we examine the issue of time and the psychological foundations of this medium, which embraces all of our life's experiences. We hope to illustrate the comparable nuances of time in the Muggle world by showing how time is treated in and around Hogwarts.

### ISN'T TIME JUST TIME?

In general, Muggles and wizards share a basic conceptualization of time. A watch ticks once every second. Sixty of those ticks make a minute. One minute was all the time Harry and Hermione had to rescue Buckbeak from Hagrid's pumpkin patch (*Prisoner of Azkaban*). Sixty minutes make one hour, which was the length of time Harry had to locate his "Wheezy" in the second task of the Triwizard Tournament (*Goblet of Fire* 491). There are twenty-four hours in a day and 365 days in a year. Even a true Muggle like Vernon Dursley can understand that time appears to be pretty straightforward. But just why *are* there sixty seconds in a minute and sixty minutes in an hour instead of ten or 100 (Fraser)? Why are there twenty-four hours in a day or 365 days in a year? And what year is it? Most Muggles believe it's 2007, but unfortunately more than one billion Chinese Muggles think it's 4704–4705, while many hundreds of millions of Muslims know it to be 1428, and of course to Harry it is 1997 in what will be his seventh and final year at Hogwarts (*Harry Potter Lexicon*). Of course, there are different date interpretations, but everyone knows what time is: it's, well, time!



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“WHAT SORT OF TIME DO YOU CALL THIS?”<sup>2</sup>

More than seventeen centuries ago, the philosopher St. Augustine tried to answer the question: *What is time?* He concluded that if no one asked him, he knew very well what time was, but as soon as someone asked him to explain it, he really had no idea! (Augustine). And that's the problem: time is not straightforward at all; it might not even move forward. It may very well go in circles (Gould). It might go in spirals. There might be bubbles of it. Time can speed up, it can slow down, it might stop for a brief moment and suddenly start again, it might even run backwards, and this is only time in the Muggle world! The first step to understanding time is to realize that time itself is measured differently across the two worlds.

Before looking at ways of measuring time, we need to ask an important, albeit strange question: *What is the purpose of keeping time?* Imagine you are young Harry staring into the Mirror of Erised: do you really need to know what time is? Harry happily spends several hours with the mirror because it shows his heart's desire. Here, we can identify with Harry because when we are doing something enjoyable, time seems inconsequential. When someone interrupts our enjoyment to tell us that several hours have passed, we are surprised, since it seems like it's only been mere moments. What happened to time during such episodes? Professor Albus Dumbledore eventually warns Harry of the futility of the mirror where “men have wasted away before it, entranced by what they have seen, or been driven mad” (*Sorcerer's Stone* 213). But why does Harry have to worry about the time at all? Why does Professor Dumbledore not only extract Harry from this situation but also warn him against seeking out the mirror again? The answer to this question is the reason why we measure time. Like virtually all wizards and Muggles, Harry is not just an individual but also a member of a community. As such, he has responsibilities and people who rely on him to fulfill them. Social beings need a way to measure time, because as either Muggle or wizard, we need to synchronize our actions with others and with the events in our environment.

Although this is generally the case, it is not true of everyone. In

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<sup>2</sup> Quote from the portrait of the Fat Lady (*Half-Blood Prince* 492).

fact, French scientist Michel Siffre, in his book *Beyond Time*, discusses his experience of living deep in a cave (outside of Hogsmeade?) far from any person-to-person (much less worldly) contact. He rapidly lost his ability to know what time it was outside the cave. He quickly started to live on his own personal schedule generated by his "internal clock." He woke up at midnight and slept at three in the afternoon, but it didn't matter to him because he didn't have to talk or meet with anyone else: he was completely on his own without even the sun and stars to keep him company. But almost no one can live like this forever, so the reason we have a common system for measuring time is because of our need to interact with other people, especially in the Muggle world.

## WAYS OF MEASURING TIME

A great way to understand the difference between Muggle and wizard society is to look at the different ways time is measured in the two worlds. In early history, all Muggle time devices were rough and inaccurate. The ancient world relied on mechanisms such as sundials and clepsydrae (water clocks), which kept the approximate time. People continued to create time-keeping mechanisms that were increasingly more accurate. The accuracy of time-keeping and the accuracy of the calendar became progressively more important in the medieval world, largely because Christians needed accurate calendars to specify when certain holy days would occur, and they needed accurate clocks so monks could know when to perform their daily prayers. It is no coincidence that many of the earliest mechanical clocks were located in churches, and many early examples are still there (Humphrey & Ormrod).

As technology improved, so did the accuracy of clocks. Escapements, pendulae, and springs all helped improve their precision (Cipolla), and today we have watches that keep time to the billionth of a second. Of course, we don't need billionth-of-a-second accuracy to coordinate our Muggle social activities, but we do need this level of accuracy to coordinate our technological and computational activities. However, in this reasonable and apparently benign pursuit of improvement, we have collectively trapped ourselves into a way of thinking about time (Servan-Schrieber). The watch has be-

come our master. Now, we all appear to be running late: we have no free time and there is too much to do and so little time in which to do it. Pre-occupation with schedules and punctuality can quickly become pathology, as John Cleese so unhappily illustrated in one of his movies (*Clockwise*). Even now, some people are so driven by punctuality that they eventually kill themselves trying to be *on time*.

Somehow, in the Muggle world, time has gone from being a useful tool to being an overpowering monster. It is now impersonal (the watch cares nothing for you), it is generic (every watch is basically the same), it is sterile (every second it records is exactly like the last one gone and the next one to come), and it is one-dimensional (it only goes forward). Not only have watches sucked much of the life out of life, but like a virulent plague they continue to spread and dominate. It is probably true to say that the watch—and the inhuman way it expresses time—is the most frequently found tool in the entire Muggle world. Think about it: every computer and most every form of technology contains some sort of time-keeping mechanism. Both the nature and reach of this monster have grown beyond our control. There are now very few places in the Muggle world where one can escape from time (Heyerdahl). Muggle time is flat, impersonal, and uncaring. The Muggle watch is there to keep everyone in line with everyone else. This watch is an object of oppression, and only the person who is actually unbound by this watch is truly free.

Occasionally, wizards use time in the same manner. For example, Harry's first detention with Professor Dolores Umbridge is at exactly 5 P.M., which of course coincides with the try-outs for Gryffindor's Quidditch team (*Order of the Phoenix*). However, the use of time-telling devices is quite different. A closer examination of wizard's clocks finds us in the Weasleys' living room looking at a grandfather clock considered "most excellent" by the brilliant Professor Albus Dumbledore (*Order of the Phoenix* 470). As the war and its associated attacks begin to escalate, Mrs. Weasley gets into the habit of carrying this clock with her from room to room (*Half-Blood Prince*). With respect to the sterile Muggle approach, this clock "was completely useless if you wanted to know the time, but otherwise very informative" (*Goble of Fire* 151). However, if you want to understand the real meaning behind the reason for time, (that is, where are the people I care about in my social world?), Mrs. Weasley's clock is ideal. Her

clock displays nine golden hands, each engraved with one of the Weasley family's names: Ron, Ginny, Fred, George, Percy, Charlie, Bill, Molly, and Arthur. Not only does the clock tell you where all these people are, but also what they are doing:

There were no numerals around the face, but descriptions of where each family member might be. "Home," "school," and "work" were there, but there was also "traveling," "lost," "hospital," "prison," and, in the position where the number twelve would be on a normal clock, "mortal peril" (*Goblet of Fire* 151).

Now, this clock does precisely what a real watch should do: it tells you where you are and what you are doing in relation to what the people you are concerned with are doing. A clock of this nature has the potential to cause more stress on the individual who views it than any watch in the Muggle world, but it is infinitely relevant and, in the final analysis, more useful.

How about a personal wizard clock that is set only to your life and schedule? Such a clock with "only one hand and no numbers at all" hangs on the wall in the Weasley's kitchen (*Harry Potter and the Chamber of Secrets* 34). The face of this clock does not tell you anything about Muggle or even wizard time. However, the information conveyed by this clock proves very helpful, because it indicates the activities that need doing as opposed to the specific time of day. "Feed the chickens, make tea." These are the activities and household chores that need to be performed. It also had one universal pronouncement to make—one we all know—"you're late"<sup>3</sup> (*ibid* 34). The measurement of time clearly varies from Number Four, Privet Drive to the Burrow. For wizards, time is personal (it is directly adjusted to you and your needs), it is specialized (different time-keeping devices have different functions), and it is multi-dimensional (it shows great variety). The wizard's clock helps put life back into the living. Harry's wizarding world beyond the confines of Privet Drive is a personal, caring place, and the interpretation of time acts in support of these characteristics.

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<sup>3</sup> "You're late" is a concept that we believe both Muggles and wizards alike can agree on with little argument, but the question often becomes, late for what?

## HOW CAN YOU FREE YOURSELF FROM TIME?

We have had a look at the way Muggles and wizards measure time and convey it to each other, but what of time itself?<sup>4</sup> One obvious way to free yourself from time is to throw away your Muggle watch. This might free you from some social obligations, but time itself continues on its merry way. Nevertheless, perhaps there is a way to free yourself from time. As mentioned, albeit briefly, you can get *lost* in time depending upon your circumstances. Harry missed an Ireland goal at the Quidditch World Cup because he had turned his Omnioculars to slow in order to watch a play-by-play of the game: “Harry, if you’re not going to watch at normal speed, you’re going to miss things!” shouted Hermione” (*Goblet of Fire* 107). Most of us live at a *normally perceived temporal speed*, but our perception of time can very much depend upon the nature of the particular activity or activities we are doing. Think about the time spent by each Hogwarts student under the Sorting Hat or even the month that lapsed between the time Harry bought all his first year’s school supplies and when the Dursleys left him at King’s Cross Station on September 1. Both of these situations seem to alter the flow of time, not just time as it was happening. It also appeared differently when Harry later reflected on such events. Like all good demonstrations of magic, here is a true illusion!

## TIME IN PASSING—TIME IN MEMORY

There are a number of illusions in how we perceive time.<sup>5</sup> One very strange illusion is that time sometimes appears to speed up as it passes, and then that same interval seems to expand, or slow down, when we later reflect upon it (Doob). Consider, for example, Harry’s combined Occlumency lessons with Professor Severus Snape, the meetings of Dumbledore’s Army (D.A.), and the homework assigned in anticipation of the Ordinary Wizarding Levels (O.W.L.s) examination in *Harry Potter and the Order of the Phoenix*. With all these

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<sup>4</sup> “Time also exists not by itself, but simply from the things which happen, the sense apprehends what has been done in time past, as well as what is present and what is to follow after. And we must admit that no one feels time by itself abstracted from the motion and calm rest of things” (Lucretius).

<sup>5</sup> “When you sit with a pretty girl for an hour it seems like a minute; but when you are on a ‘hot seat’ for a minute it feels like an hour. That’s relativity” (Einstein).



## Time-in-Passing

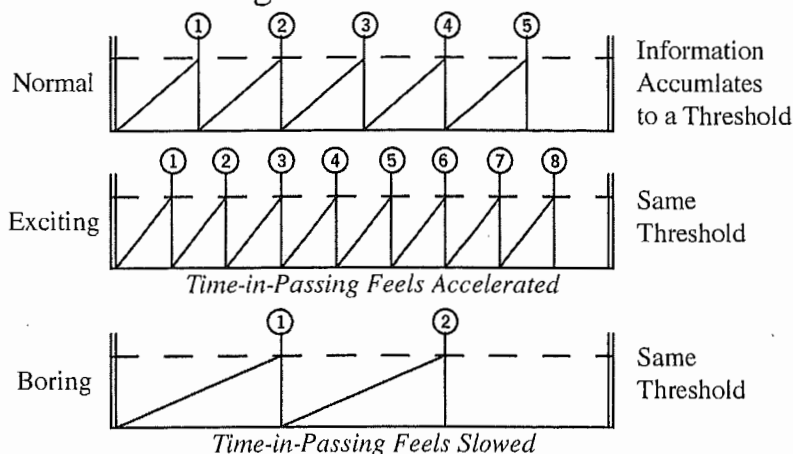


FIGURE 1: The Time-in-Passing, Time-in-Memory Illusion. The various activities such as waking up, eating breakfast, or getting dressed are *normal* information (which is represented on the top line). D.A. classes or an unauthorized trip to Hogsmeade are rated as exciting, unusual, or interesting, and the information (representing new or intense forms of stimulation) accumulates much faster than our *normal* information. Sitting in Professor Binns's History of Magic (generally viewed as boring, although the authors would welcome such an experience!), information accumulates very slowly and time seems to drag.

things happening for Harry, "January seemed to be passing alarmingly fast" (*Order of the Phoenix* 555). Clearly, time as measured by various Muggle devices in the month of January did not pass any differently than it had in previous years. Yet for Harry—who is so incredibly preoccupied with his multiple activities—the time seems to go by in a whirl, and all of a sudden it is February. How is it possible that time passed so fast?

Following such an accelerated passage of time, the Muggle mind can do strange things. Afterwards, when we were to look back on an interval such as Harry's January, time would seem to stretch out. What passed in a whirl while we were living it seems magically to have expanded: we now recall the month of January as being very long, as the events are re-calibrated in our minds. In retrospect, when he looks back in his memory, Harry's January would seem to have





## Time-in-Memory

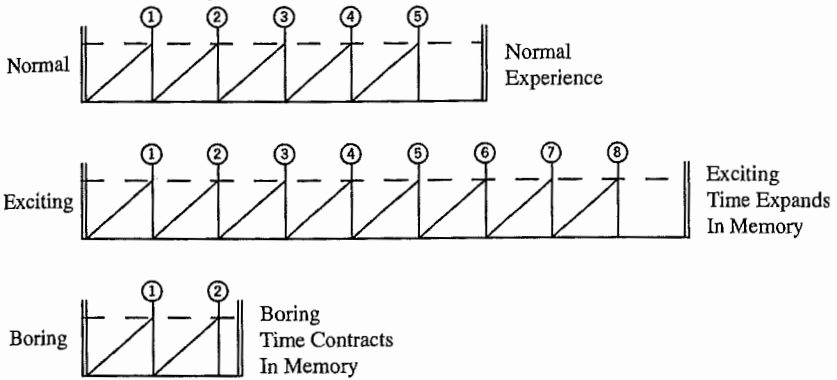


FIGURE 2: The Time-in-Passing, Time-in-Memory Illusion. Some time after these events have occurred, we go back over them in our memory. The *normal* experience remains on a normal time line and no illusion is experienced. The exciting event (Harry's month of January in *Order of the Phoenix*) fills the memory record and so seems to have occupied a longer time even though it flew past while it was happening. Finally, History of Magic occupies almost no clicks of the memory record and, even though time dragged while it was happening, upon reflection it seems to have occupied almost no time at all.

lasted almost forever. Consider the commitments Harry was able to keep in such a short span of time. This Time-in-Passing, Time-in-Memory Illusion derives from one of the ways our brain codes time. According to one temporal theory of event accumulation, the new information quickly fills up the units of our time-event record (Treisman). Consequently, time seems to pass very quickly in the month of January or even at some of the individual D.A. meetings when they are doing exciting or interesting things. Later, when Harry reflects back, his mind attempts to put a regular-time calibration template on these events, and the number of time units seems greatly expanded. Even though the experience of January seems to speed by while it is happening, in retrospect we think that it must have been a long time interval for all the accomplishments Harry achieved during that month. The opposite of this phenomenon works, as well. The hours spent sitting in detention with Professor Umbridge drag out almost interminably but seem to have passed quickly when later recalled in Harry's memory.



One great tragedy of Muggle life is this: As you grow older it is more difficult to find these novel and exciting things to do, so time-in-memory begins to speed up as time-in-passing is filled with boring or familiar events. The great dancer Agnes de Mille is reputed to have said, "I hate growing older, it seems like it's breakfast every fifteen minutes" (Hancock 150). This is the same basic illusion in time but spread over a lifespan. It might appear that this does not necessarily happen in the wizarding world, since a few individuals, such as Nicolas Flamel and his wife, lived for more than six centuries (*Sorcerer's Stone*). However, the poet Thomas Campbell suggests that the illusion we experience as we age is Nature's way to speed up time as we get older, because it shortens the appearance of time spent at the end of our life when all of our friends have passed on and left us behind. We might well wonder what Nicolas Flamel thought of this notion on his 600<sup>th</sup> birthday. Time changes for both Muggles and wizards by speeding up and slowing down according to the way we meet the challenges of our shifting existence.

### TIME DISTORTION UNDER EXTREME STRESS

Since the rules of modern time-keeping are learned so well by young western Muggles, we are often insensitive to subtle changes in the flow of time. Indeed, even if we are aware of such changes, most of us quickly re-calibrate our sense of time with a quick glance at the ever-present watch on our wrist or, more likely, on the face of our cell-phone. We are more inclined to believe the displays of these mechanical monsters than our own personal perceptions. After all, arguing with everyone else's rules in the time-fixated Muggle world is always a difficult thing to do. As a result, Muggles often dismiss episodes in which time seems to be non-linear. However, there are some rare occasions in life when such time distortion is so obvious that it has a very profound effect on each of those who experience it.

Radical time distortion is often reported under extremely stressful, life-threatening circumstances. On such occasions, time either slows almost to a halt or accelerates to a complete blur. Consider the time Harry spends in the graveyard with Voldemort and the Death Eaters (*Goblet of Fire*). Harry is convinced that death is all that awaits him, and given the odds of thirty Death Eaters to one Harry, we cannot

disagree with his assessment. For Harry, time changes its rate of flow at this very stressful and life-threatening moment. Remember when Harry stared into the dead eyes of Cedric Diggory (*Goblet of Fire*)? Time paused to allow Harry's full absorption of the situation. In this moment of the story, a duel forced by Voldemort locks their wands in *Priori Incantatem* (*Goblet of Fire*). Harry watches as the shadows of his parents squeeze themselves out the tip of Voldemort's wand. The time that passes as Harry and Voldemort connect wand-to-wand under a dome of thousands of gold beams is minimal but clearly stretched to allow Harry the time to escape from the situation. At the most memorable points of our lives, time becomes very different from a simple, uni-dimensional, linear flow. Why is this?

As we have already said, the content of what is happening around you has a lot to do with how you perceive time passing. However, the circumstances *out there* in the environment are often not as important as what is happening inside you. In situations of extreme stress, the brain realizes that even the simplest of mistakes might well prove fatal. Consequently, we pay careful attention to the important things going on around us. This focus of attention leaves little or no awareness for the passage of time. In a general sense, we lose contact with our various clocking mechanisms, and so when we next recover that linkage we have to reorient ourselves in time. In the same manner as the Time-in-Passing, Time-in-Memory Illusion, the threat of stress serves to pile up so many recorded events that we have filled up our register and now time seems completely distorted. This is one of the most interesting experiences in life. One funny thing (and St. Augustine would agree) is that if you have experienced this, we have no need to explain it further; you will know exactly what we mean. If you haven't experienced this, you may well wonder what we are talking about!<sup>6</sup>

## SUMMARY AND CONCLUSION

In order for us all to manage our daily existence, we have invented ways of measuring time that permit us to synchronize our actions

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<sup>6</sup> Many people have experienced such stress-related time-distortion situations, such as car accidents or in combat (see Hancock & Weaver 1993).



with the actions of others. However, having invented this idea of time-keeping, Muggles try even harder to make their watches more accurate. Along this path of so-called progress, somehow (and most people blame Isaac Newton, who himself was a bit of a wizard) the idea of time became mixed up with the way we chose to measure it. Increasingly, it is the numbers on the face of a watch that drive Muggles actions. This (as any wizard knows) is not the best way to approach understanding the dimension of time. Every now and then, especially when the Muggle world becomes very threatening or very exciting, some Muggles see through the illusion of time. However, most Muggles prefer to be comfortable and quickly return to the safe old way of watching the clock so that it can “tell” them the time. But, every once in a while, one of those Muggles will glimpse a vision of just how magical time can be. There’s even a whisper that this realization is actually the first step on the road to becoming a wizard!<sup>7</sup>

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PETER A. HANCOCK, having achieved a score of Troll in his N.E.W.T.s, was sent into the West as a Muggle professor, where he now researches and teaches on Muggle technology, stress, and the magical nature of time at the Department of Psychology and Institute for Simulation and Training at the University of Central Florida in Orlando, Florida, where he is also currently trying to solve the mystery of golf.

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<sup>7</sup> The authors feel the need to note a clear absence of the exploration of the Time-Turner device used by Hermione Granger in *Harry Potter and the Prisoner of Azkaban*. The concept of time travel and all the repercussions of such an ability represent far more information than could fit in one short essay. We do not feel we could adequately represent the complex and very important issues in such a small space and thus felt not discussing it instead of mentioning it without proper discussion was the appropriate path. We are happy to encourage others to write on this fascinating topic that we might, ourselves, be allowed to follow in the future—wherever that is.

MICHELLE K. GARDNER, if sorted, would be designated to the noble House of Ravenclaw. Although she has never read *Hogwarts, A History* (but would welcome such an opportunity), she is considered the Hermione of her generation. Michelle's research areas include all things Harry Potter with side diversions into wizards from other worlds. Commonly referred to as the woman who "loves ladybugs and all things imaginary," Michelle is the mother of a beautiful and inventive seven-year-old girl, wife of a very tolerant and loving husband, and located in the world's largest destination for theme-park entertainment. Comments on the above article are always welcome, enelya.aronar@gmail.com.

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