



Plurality of Space and Time in Paul Kalanithi's *When Breath Becomes Air*

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ABSTRACT

Narratives in medical humanities contribute to an ethical reformation of the medicine field. The experiences of patients and doctors make the reader aware of the pain and difficulties they go through. Since any narrative is placed in space and time with the diagnosis of a disease, it veers off making the reader realise the shift in outer and inner space of the doctor/patient. This paper will first discuss the experiences of a doctor-turned patient – Paul Kalanithi as given in his memoir, *When Breath Becomes Air* by showing how the changes taking place inside his body—innermost space—is affecting his personal space, outer space, and the absolute space. It will then move on to argue the presence of multi-layered space and time in the text and its effect on Paul. The paper will conclude by showing that the only thing that remains constant through these changes is his daughter and the memoir that he is writing. Both these entities are the constants that he leaves behind as his legacy in this ephemeral life while striking concessions with the limited time and space he is left with.

Keywords: Narrative Medicine; Medical Memoir; Inner space; Outer space; Inner time; Outer time.

Narratives are nothing new to literature. It is a key feature of almost all that we read: novels, shorts stories, etc., and has spilled into medicine too. "Narrative medicine" gives subjective experiences of patients and doctors thereby contributing to a reformation in medicine, making it more ethical (Ahlzén 1). Narratives are "a temporal ordering of a sequence of events" as they are placed in a space and time frame (2). The narratives concerning serious diseases or life-altering diseases bring a halt to space and time in a patient/doctor's narrative, with changes in their outer and inner space due to disruption in various bodily functions. The inner space is a projection of the character, a site of conversation wherein the things around highlight the traits of the character. For instance, in *House of Liars* (1948) Elisa de Salvi, the protagonist, "is inextricable from the chamber in which she dwells" (*The Imagery of Interior Space* 15) or in Arundhati Roy's *The God of Small Things* (1997), Rahel on her return to her ancestral home realises that nothing has changed in the house in long thirty-one years as if time had stopped in the house. I contend that in

“narrative medicine” there is a plurality of space – one is change taking place inside the body and being reflected upon the outside world and second is the changes taking place in the personal space of the narrator being reflected again upon the outside world. In this paper, I will argue the presence of multi-layered inner and outer space and time in Paul Kalanithi’s *When Breath Becomes Air* (2016) and go on to depict Paul’s adjustment with the internal and external space and time and the concession he strikes with the limited space and time he is left with.

Although there are no standard definitions of inner space and outer space and both are better explained as existing in a binary relationship to each other, it is the space where literary studies and geography intersect (Neal 39). The setting of a place or sense of a place in a narrative is developed through the spatio-temporal structure of it. Many genres are completely based upon spatial or geographical characteristics like travel narratives, utopia, dystopia, pastoral poems, etc (Tally 1). Historically, space for Plato is a homogenous, formless in-between place where binaries of something and not a thing intersect, a place between “becoming and being” (16-17 Spurr). This in-between – “neutral, homogenous, formless, unchanging” space became a “res extensa” as we adapted to the Cartesian concept in Renaissance period (18). It became a space that is “measurable as well as historically and geographically recognizable.” (18) For the scope of this paper the space will be considered in the Cartesian and Newtonian sense where space is measurable and expands till eternity. Newton conceptualised space and time as – “absolute” and “relative” (An 892). The absolute space and time are like “containers into which all other things occur [or exist]” (892); “an emanative effect of God” wherein “by existing always and everywhere, God constitutes duration and space” (Thomas 306). Relative space on the other hand “is created through the relationship between objects rather than being a pre-existing container” (An 892). For Newton “relative space and time... are merely measures of absolute space and time” (Thomas 307).

Paul exists amidst this absolute and relative space and time. Absolute space and time form the outermost circle – the metaphysical circle; the second circle i.e., the outer circle is the public space; the third circle is formed by inner/ private sphere – the psyche and the home; and the innermost circle is inside of the physiological body. All these spheres form concentric circles. Time also exists as absolute time – the infinite time; public time – the outer time; personal time- the inner time and an innermost time that is specific to bodily functions. These concentric circles form concentricity in Paul’s life and collectively form the absolute space and time. With the innermost circle disseminating – the cancer cells growing inside the body the other two circles start to widen too – mingling into the eternity of the external/ outer space. These spaces nest into one another and with the dissemination of the innermost circle Paul starts disseminating too into the larger circle of eternity. *When Breath Becomes Air* begins at a liminal space lying between exterior and interior space. Paul’s breath travels between this liminal space, between his being and becoming arising from the inner space (the body) and is released into the outer space (outer world). In this process, in an ailing body like Paul’s, there comes a point when breath arises from the being travels up to the stage of becoming and then does not return into the body of the being – implying the transformation of breath into the air. His spatio-temporal world brings him into space between being and becoming – amidst life and death. With the metastasis happening, each healthy cell replaced by cancer cells inside his body he has to realign his outer space and time. He is pushed into liminal space and time i.e., between a doctor and patient, between known and unknown, and between life and death. But this transformation of breath into the air is not sudden. In the first few lines of the text, we see that the author is looking at his innermost self - i.e., his body where a disturbance in functions of a few cells has altered affected other cells. This infinitesimal disturbance has led to some instant physical changes. The author is not wearing a blue scrub, white coat, or radiology suit but a patient’s gown (Kalanithi 3). He has read scores of such scans but now he is reading his own scans. These “widely disseminated” cancer cells growing inside his body are gradually going to occupy the space of other healthy cells affecting everything around them – tissues, muscles, organs, and all the space inside and outside the author’s body. For instance, the hospital is a space that Paul has spent one-third of his life in, but this space has transitioned in the spur of a moment as the scans reveal the growth of “bastard offspring...uncontrolled mob of misfits” i.e., cancer cells (Nuland 3). With the malignant cells growing inside his body, the immediate environment around him changes. He is immuno-compromised due to cancer and his personal space must be adjusted according to the new developments taking place in his body. The innermost space – his body is guiding the outer space i.e., his personal space. Siddharth Mukherjee in his seminal work, *The Emperor of All*

Maladies: A Biography of Cancer, says that a simple paper cut can sometimes be lethal (16), Paul too must remain extra cautious of his surroundings. Towards the end of the book as Paul's health was declining at a faster pace his wife Lucy used to video record his daily activities to check if there is any "deficit in his speech or gait." (Kalanithi 205) The weather, food, even simple acts like typing on his laptop started to affect him. His outer space i.e., his personal space must be altered according to his inner space i.e., his body; and the outer space like a hospital, park, etc. is constricted and gradually goes out of his reach limiting him more to an inner space i.e., mostly his home. It infers that Paul is adjusting/ altering his personal space according to the bodily changes implying a change in outer space according to inner space. At the same time, adjusting/ altering his body (by trying to gain physical strength in physical therapy) according to requirements of his personal space implies a change in inner space – his body – as per needs of outer space.

The human body helps us experience the external world, but it remains absent from our awareness (Leder 1). Similarly, in Paul's case, the multiplying cells are not visible or part of his consciousness, but they overturn the course of his life and change his experience of the outer world. The metastasis i.e., movement of cancer cells from one body part to another body part reflects in his outer space as cancer hits his physical well-being, his occupation, his plans, and leaving him with a limited amount of time to live his life. He adores the exterior settings, the outdoor activities. The adventures he had while living in Kingman, Arizona amidst the desert and during his college days; his love for cycling, trekking, marathons, traveling, etc. are proof. When his physical strength starts to diminish one thing that he wishes to do again is a hike up to the mountains. Even before the final diagnosis of cancer, he decides to meet his friends in New York as he wishes to be with them one last time before the clouds part over to make his medical condition clearer. Outer spaces play important role in his life and as the cancer cells start spreading in his body it binds him to indoors – home and hospital rooms. One chance that he gets to move outdoors was when he is offered his dream job, but he refuses it because he is reminded of his handicap to move out of his present location. Interestingly, the reminder comes as he was being shown around the new place of work by the employer. The employer told him that he could even swim or ice skate to work, and Paul is hit by the sudden realisation that he cannot shift spaces at this stage of his disease let alone swim or skate. The beautiful lake, the exterior ironically, make him aware of the fact that he cannot take up the job due to the limitations of his body.

Like space, time and temporality have always been part of literature. Time is an irreducible part of narrative beginning from "adventure-time" of Greek romances (Bakhtin 87), "everyday time" of adventure novels (111), "biographical time," (116) "historical time," (129) "historical inversion" or "Trans-positioning" of time (157), "single time" or synchronous time (157), "allegorical" time (162), "collective" time or "temporal contiguity," (206) "interior time," (206) to "idyllic time." (230) In the modern period, time took a psychological turn in tandem with technological advancements but for a terminally ill patient even with the advancement in science and medicine there is still a race against time. The diagnosis has caused a disturbance in spatio-temporal setting of Paul's life. The things that he had planned for a later period of his life have to be prioritised right now. With cancer cells multiplying inside his body a timer has been set inside his body – a personal time of cancer cells that won't die after maturation rather keep on "fornicating" and "raging against the society [of cells] from which it sprang" (Nuland 210). This inner timer ticking inside the body left limited time for Paul in his external space. The effect of two clocks – one inside the body and another outside the body lead Paul to press his doctor, Emma, to discuss the Kaplan-Meier curve, a curve that "measures the number of patients surviving over time" (Kalanithi 57). He wishes to know his prognosis, how many years he is left with to plan his remaining life, and just like the inner and outer space, he has to readjust his inner and outer time as well.

This temporal tension is starkly visible in the book as it begins in the past tense and Kalanithi matter-of-factly explains his illness in the very first sentence. He explains cancer as "widely disseminated" (3) and it seems that cancer cells have spread so widely that everything that Paul had now became a thing of the past. Before the diagnosis, he was a neurosurgical resident who has read scores of CT scans pointing presence of cancer in people but the scans he is reading now are different as they are his own. In the very same space and time i.e., the hospital room, the scans

have revealed the presence of cancer leading to a shift in Paul's life from a doctor to a patient, from a doctor's scrub to a patient's gown. Paul must live in his present relishing and enjoying as many moments as he can along with planning for the future of his loved ones. His wish to meet his friends in New York one last time, attend his alumni meet at Stanford, cycle up to the mountain ranges are all ways to fill his present with moments that he has loved doing in his past as there is limited space and time left in his future. While reconciliation and creating a balance between the present and future he is sifting through things that are of utmost importance to him like his family, especially his wife.

Time and space are the agents that take away "life" from Paul, but they are slippery and do not necessarily conform with the regimented physical time and space. The seconds, minutes, hours, days, months, and years mean different things to different people depending on the place they are in their lives. For Paul time means the progress of his treatment and the duration he is left with. Time and space are shrinking for him with the cancer cells disseminating in the body taking up all the space and time – widening inside the body to a limit where innermost space merges with the eternal space. He knows that death lies in his future but how near or far is not known to him. His dilemma is explained beautifully when he quotes, "Before my cancer was diagnosed, I knew that someday I would die, but I didn't know when. After the diagnosis, I knew that someday I would die, but I don't know when" (Kalanithi 131-132). The irony is that Paul does not have much time and space and time yet space and time are the only things he is left with – time to wait until death comes and the eternal space that will ultimately subsume him. With time he realizes the futility of knowing his prognosis and tries to make the most out of his leftover space and time, gradually keeps clearing space for death. He starts focusing on things that can be achieved in a limited time instead of worrying about the Kaplan- Meier curve or his prognosis. Death being a human universal, part of human sociality and its contents being highly variable, Paul's position as a doctor gives him an understanding of profundity and discomfort associated with death. The life-threatening disease makes him apprehensive of obliteration of the relative space and time and culmination of his experiences, insights, wisdom accumulated over the course of his life. He nowhere overtly talks about space and time and his relative position in the various spheres of space and time but the experiences of birth and death he has had as a medical practitioner have risen his awareness towards the transitory space and time.

Disease in some ways sets the time and space back where the patient has to learn and relearn certain things. Basic functions like how to keep the body moving, eating, sitting, sleeping, and even breathing – all have to be readjusted and relearned according to the complications arising out of the disease. At one instance in the book, Emma, Paul's doctor, offers him to just remain a patient and it comes as a strange revelation to him as he had never thought about it, being a doctor is something that comes naturally to him. He has to learn how not to be a doctor and relearn by going back into the time when he was not a doctor. Paul's attempts at physical therapy are aimed at going back to the time when he could walk, run, trek, cycle, and work for longer shifts at the hospital. Even his body has to learn how to function with drugs and therapies that it is subjected to make space for them, alter functions so that his body remains comfortable in the space outside. These are all ways to relearn how to be; relearn to see life from a newer perspective. He understands his life in a linear frame of reference, moving from one point to another. From a young boy in Arizona to a college student exploring career options in Stanford, from a resident neurosurgeon looking forward to becoming a professor in neuroscience. With each step crossed he seems to be reaching a step higher on the ladder of life. In my opinion, Paul is not moving linearly rather shuffling between different spheres of space and time. The diagnosis of cancer has restricted but sped up his movement in a specific spatio-temporal setting. Like a body orbiting in a specific orbit gains velocity, overcomes force(s) restricting its motion goes whizzing out of its orbit transcending into another sphere into a "strange and sparkling universe" (Kalanithi 20). Paul's life takes a similar path – from an orbit complacently revolving as a doctor, cancer gave him the escape velocity flinging him into new orbit as a patient. These orbits interact with each other but if even a single element of these orbits / concentric circles misbehave it may lead to life altering changes or even death thus, making death an integral part of the interaction between these concentric spheres. The

interaction among these concentric orbits makes a collective effort to regulate death and promote life. The different spheres of space and time act as boundaries with life beginning and flourishing in the innermost sphere and death becomes a part of the outermost sphere – the absolute time and space. The transition of Paul from innermost to outermost sphere is what is recorded in Paul's memoir and his daughter. His writing and his progeny remain constant amidst this transition. Paul understands this transition well – his constant occupation with life and death as a doctor, curiosity to understand the workings of human body and the role life and death partake in it, desire to understand the brain and its workings under the thick skull – exemplifies this enough. A scan or a medical report is not just a simple image or “squiggly lines” (57) on a blank sheet of paper but much more than that, they are the proof of suffering of a human body. The telemetry lines on screen that show Paul's scan form a pattern almost like words form a pattern to give meaning. The rays that travel from the outermost sphere to innermost sphere to weave this pattern of lines tell a story – a story of the inner recesses of the human body and its connection with the absolute space and time. The squiggly lines of the scan also symbolise the disturbance created by the cancer cells in all spheres of time and space in Paul's life. Paul B Armstrong in his work *Stories and the Brain: The Neuroscience of Narrative* talks about contradictory human “need for pattern and constancy” in life on one hand and “flexibility and openness” on the other (1). Understanding this statement in Paul's context one can say that he sees life growing and moving in a linear pattern – completion of residency, lenient working hours for him and his wife, other plans about future, etc. but the cancer came into his life like a plot twist disturbing the set pattern compelling him to redo and reconsider the order of things in his life.

Paul's involvement in his patient's lives, their inner and outer space and time spheres allows him to peek into these spheres and gives a sense of authority to interpret the workings of the patient's innermost sphere. These interpretations affect the innermost to the outermost sphere of space and time of the patient. At one point in the memoir, Paul talks about his authority to take life- changing/ life- altering decisions for his patients, “...whose lives could be saved, whose couldn't be...” (Kalanithi 80). He takes he talks about the prognostic decisions if a certain life “should be saved” (80) in cases where only heart beats but the brain is dead, the patient is condemned to an existence where tubes and bags attached to the body carry fluids in and out of the body. As a doctor, Paul can see, feel, and touch a tumour, he can even remove it while the patient suffering from that tumour mostly remains passive in the whole process. This authority that Paul bears as neurosurgeon allows him to move in out of the innermost space of his patients i.e., their bodies. One may say that the courage for which Paul is lauded by the readers across the world and the bravery about which Abraham Verghese talks about in the foreword of the memoir stems out of the transitory position Paul stands in – meeting his patients in the outer space or public space i.e. hospital rooms, introducing them to possibility of a life threatening disease, possible prognosis and surgical routes, etc., and then entering into their innermost space i.e. inside the body of the patient trying to remove the malicious cells. This transition of Paul's from his outer space i.e., OR (Operation Room) to innermost space of his patients i.e. their bodies lead to “human relationality” (96) – opening grand truths to both the patient and the doctor in a way binding them together. Time has an altogether different role to play as Paul transitions from different spheres in his and his patient's life. First is the outer time of the patient which has been abruptly affected by the diagnosis of the disease from their private or public time space they have shifted to a hospital ward or room where time runs differently in consonance with the time allowed by patient's body, doctor's time, hospital's schedules, etc. The time which had been very personal and private to the patient is now transitioned to public time and as a doctor, Paul too talks about topsy turvy time schedules of the hospital which affects his personal or inner time. Time spheres of a doctor and patient entwine even more when both reach an operation room as passing of time – innermost time i.e., time inside the body, private time and public time of the patient standstill because of anaesthesia given to him or her and for doctor innermost to outermost time depends upon the medical procedures, complications, the team of attendants, nurses, fellow doctors, residents working with him or her along with the frantic race against time to complete the surgery in order to save the patient. The doctor and patient are entwined in a way that millimetres of space and microseconds of time while they are in contact with each other can lead to success as well as failure.

The family, closed ones, friends, etc., of a patient too suffer a change in their different spheres of time and space. They are shifted from their inner sphere of space and time to a public space, dependent upon outer time made to wait for hours sometimes outside a doctor's office or operation room. While patients go through physical and mental changes with the progress of the illness their family and friends too adapt themselves to witness these changes as mute participants. For instance, in the memoir, *When Breath Becomes Air*, Paul's pockmarked face is not only an issue for him but for his wife and other closed ones who were habitual of looking at the smooth skin of Paul. These changes might be infinitesimal in comparison to the war of life and death that a patient is growing through but certainly mark the changes in identity and the perception of the onlooker. The inner and outer spheres of space and time of those members of family who are in direct charge of taking care of the patient like Lucy in case of Paul (his wife) go through many changes intersecting at many points with patient's inner and outer spheres of space and time.

The trajectories of lives of Paul and his daughter Cady are going in reverse directions while one is moving towards death the other is blossoming and growing each day. On one hand Paul is losing appetite, struggling in moving, walking, reading, writing or any other diurnal activity while Cady on the other hand is achieving all her firsts, the first solid food, the first step, the first smile, etc. On a deeper level while Paul's innermost space and time are shrinking, Cady's is expanding. Paul's otherwise sorrowful life is filled with movements of joy when the concentric spheres of space and time of Cady intersect with his space and time.

The book begins as a life narrative but turns into a death narrative with the limited time remaining in Paul's hands. With the internal space altering, the external space shrinking, Paul onsets to create two entities in outer space and time to make his days more bearable. First is the bearing of a child who filled his days with joy, "a joy unknown to [him]" (Kalanithi 199), and second is the memoir itself. Both are legacies that will go on living even after Paul's days are over, they are a proof and record of Paul's transition from different spheres of space and time. The repulsion, disgust, alarm, and unsettling profundity related to impending death transformed into a positive creative space with something to hang for people bearing the void left by him. Also, writing is a way for Paul to come to terms with the new identity forming as the changes in spatio-temporal spheres of his life are taking place. Kalanithi states multiple times in the memoir that identity alters with the changes taking place in out of body due to diagnosis of a life-threatening disease like cancer. It can be further elucidated as that by characterizing himself in the memoir he has transformed his "physiological- psychological" self into a textual self (Zoran 313). This textual self with descriptions, dialogues, actions place him in a "temporal verbal continuum" (313). The act of writing or creating connects his innermost self to the absolute space/ eternity. A niche space is created for himself where even after his death his daughter and the book will survive him. From one type of spatio-temporal setting he has transitioned to another setting – the physical world to metaphysical world. Before succumbing to finitude, he gives birth to one that "cannot be robbed of her futurity" – his daughter, Cady. The last words by him in the book and for his daughter are that she has filled a "dying man's days with... joy" (199). He even dedicates his book to his daughter associating one eternal legacy with another. Through this book, Paul invites the reader into his space and makes them witness his story. It not only works as a therapy for Paul but also makes the reader humble and gives rise to humility. The reader is witness to his suffering, joy, illness, death, and everything life is offering him. The text written on the white pages of the book is involved in a "time-space complex" (Spurr 30) wherein the limited time and space available to Paul leads to a sad abrupt stopping of words, passing into the oblivion of page's whiteness just like Paul passing away into the oblivion of the eternity of the universe.

The innermost, inner, outer, and outermost spheres of space and time are common to all human beings. All humans exist in a space and time relative to the absolute space and time. The diagnosis of a life-threatening disease like cancer leads to a consciousness of innermost and outermost space and time thus, altering the relative space and time of an individual. In Paul's case too concentric spheres of space and time cause changes in Paul's life – simple things like food habits, clothing habits and diurnal acts like walking, reading, writing, etc. go for a toss. Amidst this chaos in Paul's life two entities that remain constant are his daughter and his memoir. Both bring some form of

joy to a dying man and maybe that's why in last few hours before his death he expresses his desire to meet his daughter one last time and asks his wife to publish his unfinished manuscript in some form. Even in the weakest of moments of his life, Paul was determined to give birth to entities that could outlive him as well as give him relief in his otherwise painful existence.

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