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MEMORY AND MEMORIES: AN INTERDISCIPLINARY APPROACH

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Abstract: Only humans seem to have the ability to project themselves into their past or future. This mental phenomenon, called autonoetic consciousness, proves the interrelation of memory, imagination, emotion, intelligence and consciousness as a way of creating self-images. The current paper constitutes an integrative study on memory from a theoretical perspective. The first part presents the most known neuroscientific viewpoints on the memory process, along with the pathological case of patient HM, who lost his memory following the removal of his hippocampus. The second part provides a humanistic perspective on recollection to demonstrate its compatibility with the neurological processes of storing information and forming memories. The final part conveys the phenomenon of recollection from the perspective of identity crisis in Kazuo Ishiguro's novels, as a case study in memory literature. According to memory theories to date, identity cannot exist outside the process of recording and recalling past experiences. Despite the fallible nature of recollection, human beings return to their past in order to give a healthy meaning to their present.

Keywords: *memory and recollection; Ishigurian memory; memory theories; memory concepts; interdisciplinary approach to memory; memory in Kazuo Ishiguro's novels*

INTRODUCTION

Due to an enduring emphasis on divisibility, the core conditions of epistemology have long been subject to very diverse areas of investigation, preventing specialists from understanding the human phenomenon as a whole. Consequently, the recurrent discrepancy between procedures and subjects has produced serious gaps, errors and distortions in the study of human history. Specialisation may be indispensable to human progress, but can by no means be sufficient; therefore, academics and researchers who frequently use other fields of knowledge to understand their own areas of specialisation should be overtly encouraged and supported (Lovejoy, 1940).

Nowadays, more than ever before, specialists openly support the integration and alliance of all manifestations of the human mind. The study of human knowledge may be divided for pragmatic reasons, but human existence will always remain a unitary phenomenon, hence the need for integrative research. Seeking to comprehend a single memory concept will most often encompass other fields of human research. Thus, accepting the beneficial liberalisation of academic and scientific boundaries could lead to a holistico-interdisciplinary understanding of the processes of memory and recollection.

The present study therefore constitutes an integrative analysis of memory, from scientific and humanistic perspectives, with a case study from literature, namely the introspective novels of the Anglo-Japanese Nobel-Prize winner Kazuo Ishiguro.

A NEUROSCIENTIFIC OVERVIEW

Memory represents the ability to remember the knowledge acquired through experiencing things in life on a daily basis. It is generally known that the potential for storing information has no limits yet empirical evidence proves that the retrieving process naturally lacks perfection even in the healthiest of the brains. The anatomical house of the human mind has both specific and synergistic parts for the six major mental capacities – memory, sight, linguistic and motor skills, mood and personality (Abbott, 2016).

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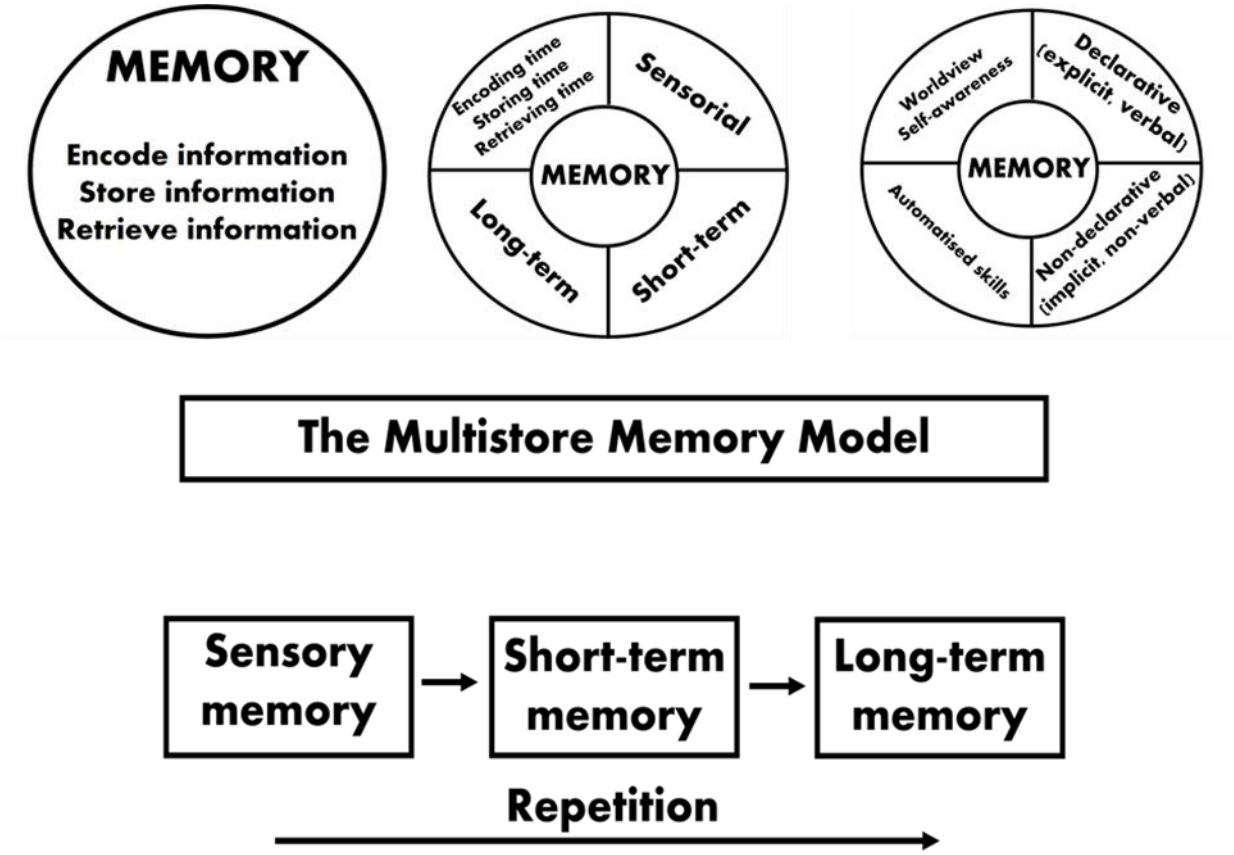

Figure 1. Memory processes

Memories form by encoding and storing information in certain parts of the brain in order to retrieve it at later times, which implies constant adjustments of the neuronal connections. By memorising information, humans gain better knowledge of the world around them as well as themselves, which plays a major role in their choices, decisions and behaviour. Depending on the time needed to encode, store and retrieve information, there can be sensorial, short-term and long-term memory (Cowan, 2008). Based on the functions involved, there is declarative (explicit, verbal) and non-declarative (implicit, non-verbal) memory (Squire & Dede, 2015). Verbal memories include all the information necessary to create worldviews, as well as self-awareness, whether accurate or not. Declarative memory is therefore prone to inaccuracy in all three stages: encoding, storing and retrieving. Non-verbal memory consists of all motor skills that have been learnt and automatized in the basal ganglia and the cerebellum (Baddeley & Hitch, 1974).

The multistore memory model refers to the process through which sensory memory becomes short-term (working) memory and then long-term memory, through repetition. The first two types of memory can also work independently of each other, in immediate circumstances, in tune with a person's attention span; however, enduring memory cannot be achieved without following the three-stage process of memorising (Gelkopf & Zakai, 2012). Being deeply engaged in the thinking process, active/working/short-term memory is regarded as the conscious mind while long-term memory forms the unconscious (Atkinson & Shiffrin, 1968; De Sousa, 2011). Because it offers one a sense of identity (Birke, 2008), memory can also be regarded as a threefold autobiographical process: procedural, semantic and episodic (Bower, 2000).

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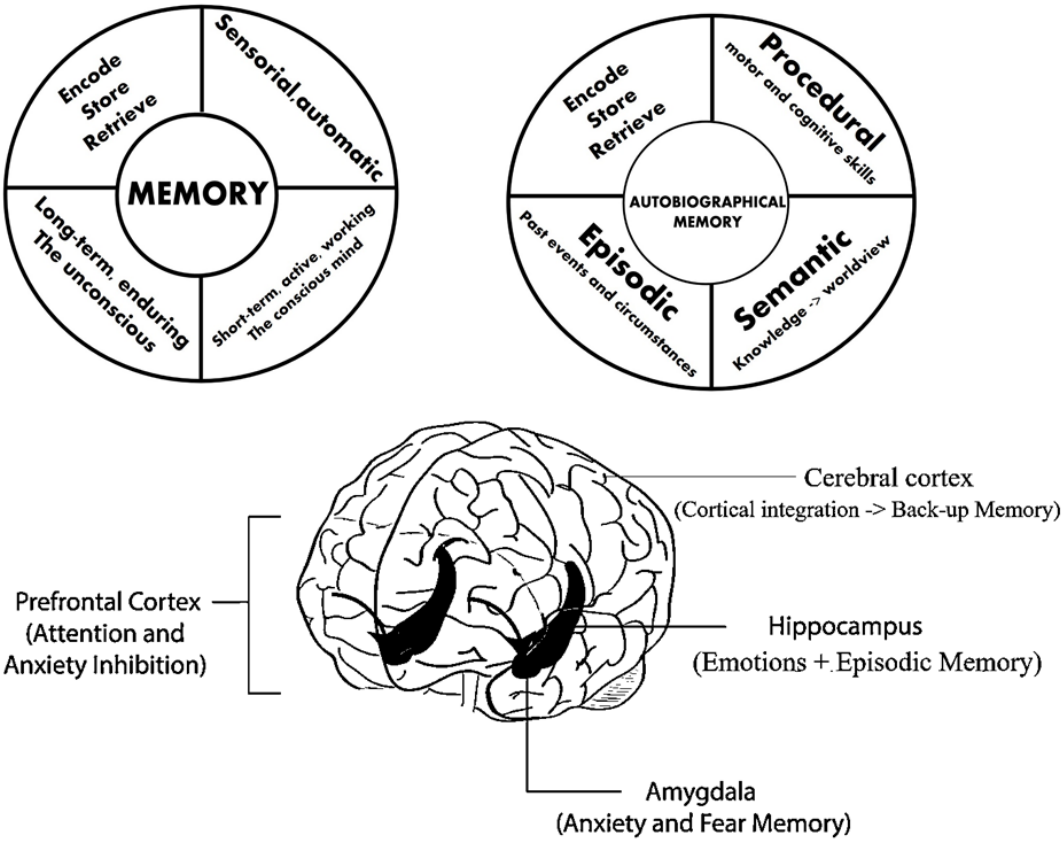

Figure 2. Memory storage in the brain

Procedural memory consists in acquiring motor or cognitive skills. Semantic memory comprises a person's knowledge that creates their worldview (Schacter, Wagner, & Bucker, 2000). As to episodic memory, it records the events and circumstances of the past (Bower, 2000). The storing capacity of lasting memories seems to have no limits in the two areas of the brain: the prefrontal cortex and the hippocampus. The latter is mainly responsible for a person's emotional behaviour, so there is an anatomically strong connection between emotions and episodic, also called autobiographical, memories. However, through cortical integration, long-lasting memories are also stored in the human part of the brain, the cerebral cortex, as a back-up process. While the two hippocampi are essential in learning and remembering, as well as forming and storing memories, amygdala is directly involved in the response and memory of emotions, especially fear. Since both the hippocampus and amygdala are parts of the limbic system, their location indicates the importance of emotions in the remembering and decision-making processes (Ressler, 2010).

The damage of the two hippocampi leads to full amnesia, as the case of patient HM testifies. In order to reduce his epileptic seizures, doctor Scoville surgically removed HM's hippocampi in 1953, unaware that the hippocampus was directly involved in the process of forming memories (Squire, 2009). Thus, as of the age of 27, patient HM's conscious processes of new memorisation became practically inexistent, besides the loss of most of his already-formed memories. Nothing new could thus be stored in the young man's brain while everything was immediately forgotten, after direct interaction. However, the automatic memorising process could function properly for most of his motor skills, not least because implicit memories were stored in the subconscious mind and,

anatomically, in the basal ganglia and cerebellum. When memories are taken away for various reasons, time perception also suffers different forms of distortion. In other words, humans are as old as far back they can go in their minds, since memories can be regarded as non-chronological clocks that majorly partake in their identities (Kelley, Evans, & Kelley, 2018). Seeing or experiencing things as if for the first time over and over again may seem romantic, as it takes away the boredom inherent in repetitive activities, yet it cannot represent a feasible way of living. Meanwhile, consciously keeping one's gusto throughout daily habits also seems like wishful thinking.

According to research, old and new, Alzheimer's is directly linked to cognitive impairment, concentration difficulties, serious behaviour problems as well as memory loss, hence its recognition as the most feared type of presenile dementia (Weller & Budson, 2018). Thus, because it damages the hippocampus, Alzheimer's disease consists in the gradual loss of all memories as well as the inability of making new ones, culminating with completely erasing the non-verbal memories (Weller & Budson, 2018). Since the disease still poses serious problems for specialists, from symptom identification and lack of cure to the disturbing dichotomy between the early- and later-onset forms, a fast-growing number of old people believe themselves doomed to the disease (Mirra, Hart, & Terry, 1993; Mendez, 2019).

Due to the large amount of information to encode and store on a daily basis, memories go deeper down into the subconscious warehouse until one deliberately decides to retrieve them. There are also cases when information cannot be totally retrieved due to stress, lack of sleep or other disruptors such as rapid aging or poor encoding. This is called the tip-of-the-tongue phenomenon or lethologica, and proves the importance of memories and language in expressing one's ideas (Baddeley & Hitch, 1974). The semantic network model indicates how long-term memories are organised in the mind based on their interaction with other memories (Lehmann, 1992). It is a process similar to Proust's involuntary memory. In *Swann's Way*, the first volume of Proust's vast novel, *In Search of Lost Time*, the narrator tastes a madeleine dipped in tea, which triggers a childhood episode. In line with the unconscious retrieval of related memories, through the sight of the madeleine (Proust, 2018), the semantic network model creates a whole mental narrative around one particular thought of something in the past.

Memories keep track of time but they can also be lost because of time, especially when information is not stored properly or practised enough. Consciously forgetting certain aspects of the past consumes energy in the same way Maxwell's demon does when he tries to violate the second law of thermodynamics. Therefore, both expanding one's knowledge and forgetting information are forms of entropy, which is the universal law of continuous expansion. Maxwell's theory of heat is a thought experiment in physics done in 1872 and meant to prove that the second law of thermodynamics can actually be violated if a finite being could control the transfer of heat between two sets of gas bubbles. According to the law, the different temperatures of two isolated objects will be regulated by their contact with each other, which proves that entropy keeps increasing, the consummation of energy leading to the expansion of systems. However, the experiment has been counteracted by the argument that the demon's endeavour to manoeuvre the gas bubbles, along with his mental work in the process, are also a form of entropy within an isolated system disorder (Daub, 1970).

The distinction between habit and conscious memory may be the most appropriate to single out human identity, wherein the former contains the "skills, responses or modes of behaviour that are learned by human beings, non-human animals and even machines" while the latter entails "recalling or recollecting past experience" (Warnock, as cited in Rossington & Whitehead, 2007, p. 3), which leads "to the survival of personal memories in the unconscious" (Warnock, as cited in Rossington

& Whitehead, 2007, p. 93). The above dichotomy also emphasises the importance of memories for establishing and maintaining social ties, since personal recollections, as forms "of social skill" (Gergen, 1994, p. 101), also contain elements from others' lives. Although emotional memories seem to remain vividly accurate regardless of the passage of time, most studies attest to the malleability or "the reconstructive nature of memory" (Brown, Kouri, & Hirst, 2012). Time seems to dilate when intense emotions are felt due to special events from personal or social life (Kensinger, 2009). Moreover, according to the peak-end rule, people are more prone to retain the apex of an event alongside its ending (Hargreaves & Stych, 2013). Yet, the more detailed highly intense or flashbulb memories are, the more deceiving they usually become (Hirst & Phelps, 2016). The misperception of momentous events may have many causes, one of them being the very act of retrieving the batch of strong emotions adjacent to the subject memorised (Loftus, 2013). In other cases, people often choose not to remember their violent pasts, or not to focus their attention on what their past deeds may mean for their present and future. Information avoidance or conscious inattention thus comes from the fear of confronting the emotional baggage of such past events, or from the unconscious desire to detach from ancestors' mistakes. In other circumstances, human beings resort to confabulation to fill in the gaps in their memories with imagined accounts for reasons within or beyond conscious control (Bernecker, 2017). A delicate case of pseudo-recollecting is the false memory syndrome, determined by vivid memories unconsciously recreated in the adult period as an emotional replacement of a past trauma (Kitzinger & Reilly, 1997).

Neuroscientist Karim Nader believes that he has found another reason for memory inaccuracy, which may come in line with the process of entropy: Memories are altered by the remembrance act itself, especially when repeated several times and in different contexts (Nader, Schafe, & Doux, 2000). Personal history may thus be more subjective than previously assumed, although neuroscientist Eric Kandel firmly believes in the consolidation process, according to which memories change insignificantly with time, regardless of the retrieval number. If the activation of old memories requires the same kind of protein addition to the synapses as the forming of new memories, then the process of reconsolidation may indeed interfere with the original content of memories, proving their proneness to conscious and unconscious distortion (Kandel, 2010). In short, the process of recollection very much depends on the present environment of the person that remembers, along with their current emotional state and social interaction.

Imagery represents yet another form of remembering that can add to the alteration of reiterated memories. Recollecting in pictures while using linguistic tools and vice versa may render the storytelling experience as engaging as is inaccurate: "The past cannot be changed for it has indeed occurred: the individuals view of the past, however, can be manipulated; it is flexible within a certain framework…When a memory is evoked it is not merely being replayed in our mind's eye, it is in fact being reinterpreted and reconstructed" (Home, 2002, p. 69). As an explanation for traumatic distortion, the term tunnel memory, used in cognitive psychology, indicates that the main details of negative recollections are always clearer than the peripheral ones (Shaffer, 1998). In four experimental environments, participants subjected to a traumatically presented piece of information were able to give a more spatially centralised account of what they had witnessed than when they were presented the same information in a neutral state. When they were not negatively triggered by the scene, subjects could extend its spatial setting by placing it into a larger context. Tunnel memory can thus prove that people tend to develop an accurate rememorizing of traumatic or negative events based on the close relationship between memory and emotion.

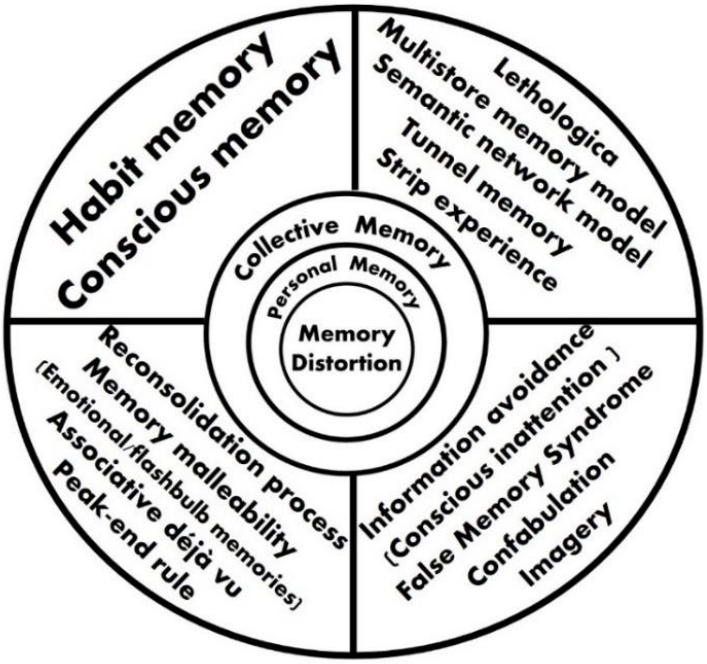

Figure 3. Personal and collective memory

Whether or not proved scientifically, real-life circumstances can thus indicate that long-standing memory reactivation will lead to disruption of memory contents, due to the faculty's "stratagems, its selectivity, its obsessional quality, its refinements, its expedience and use" (Shaffer, 1998, p. 595). Although it has not yet been decided whether all of such memories suffer transformation during their recollection, personal accounts "can rarely be depended upon to faithfully recall past events, especially those in which the subject directly participated" (Menninger, 1994, p. 97).

All in all, memory distortion, whatever its causes, can lead to different degrees of unreliability and misperception. According to neurosurgeon Wilder Penfield, the electrode stimulation of the temporal lobe can induce oneiric, hallucinatory, out-of-body or déjà vu experiences that can engage all the senses, along with certain fear-based emotions (Kumar & Yeragani, 2011). Yet, when genuine memories are so retrieved, there are frequent cases when the recollecting act is accompanied by the feelings adjacent to the original experience. Penfield (1952) called this type of induced perception strip experience. In other words, when the temporal area of the brain is electrically stimulated, it can trigger a whole range of emotional memories in conscious people. What Penfield (1952) has thus discovered is that human beings can do two acts at the moment they start recollecting: (1) they can relive the recalled events at their original emotional scale while (2) they can consciously analyse the past events from all perspectives. This proves that the storage of information is not a dry process of linking recollections together. On the contrary, each instance can be paired with the initial set of emotions, relived or reinforced through the act of recollection. Although Penfield's (1952) studies are scientifically sound, they cannot prove that the brain can internalise all experiences down to the last detail without the person's conscious control (Horowtiz & Adams, 1970). Yet it can still be stated that some people can vividly recall certain past events in their original

emotional and factual form. Interestingly enough, as a method of memory distortion, the experience of déjà vu creates an inverted type of recollection, as if the present were only a memory of the past. According to research, the impression of reliving certain conjunctures may be due to a faulty, mixed-up storage of long-term and short-term memories, which leads to a false sense of familiarity with a present situation. The sensation of fake recognition underlies both associative déjà vu, typical of mentally healthy people, and biological déjà vu, which is a side effect of epilepsy (Bancaud, Brunet-Bourgin, Chauvel, & Halgren, 1994).

A HUMANISTIC VIEW

Since the processes of recollection relate the past and present in variegated ways, more or less distorted, the faculty of memory becomes a major tool in establishing human identity. The manner in which one's past is remembered will always influence the mental unfolding of one's future as well as one's choices, decisions and actions. Besides anatomy, psychology and neuroscience, the study of memory pervades all fields of humanistic research, from literary and cultural criticism to sociology and philosophy; however, the core information remains quite the same, regardless of the linguistic shell or terminology used: "The genealogy of discourse on memory reveals, however, that philosophy, historiography and literature have more in common with neuropsychology than one may be inclined to think" (Nunning, Gymnich, & Sommer, 2006, p. 1).

Emotional baggage is as much an inherent part of recalling as is of the decision-making process and daily behavioural patterns. The metanarrative of memories, digressive, indirect and self-justifying as it usually is, stems from a mixture of nostalgia and worry about its impact on the present experience. According to King (2000), "all narrative accounts of life stories, whether they be the ongoing stories which we tell ourselves and each other as part of the construction of identity, or the more shaped and literary narratives of autobiography or first-person fictions, are made possible by memory. They also reconstruct memory according to uncertain assumptions about the way it functions and the kind of access it gives to the past" (p. 2). Critics and thinkers' visions of memory can only prove that humanistic ideas are usually in line with scientific research. Memories offer the *rememberer* the occasion to edit and re-experience the event recollected at an emotional and informational level. They are thus "infused with the idiosyncratic perspectives, emotions and thoughts of the person doing the act of remembering. It necessarily involves the feeling that the present recollection constitutes a re-experience of something that has happened before" (Wheeler, 2000, p. 597). Memories are often accounts aiming in the directions imposed by the present environment: "We organise our experience and our memory of human happenings mainly in the form of narrative – stories, excuses, myths, reasons for doing and not doing and so on" (Bruner, 2003, p. 44). "Extensively rehearsed and elaborated memories come to form the core of our life stories – narratives of self that help us define and understand our identity and our place in the world" (Schacter et al., 2000, p. 299). The same memories may have many faces since "memory, by its very nature, is uncertain, quivering, subject to erasures and displacement" (Lewis 101). According to Feigenbaum (1995), the shell of autobiographical memories mainly depends on the purpose of evoking them. Human memories will always be distorted by the environmental perceptions in the present: "Remembering is never a quiet act of introspection or retrospection. It is a painful remembering, a putting together of the dismembered past to make sense of the trauma of the present" (Bhabha, 2000, p. 63). Memories underlie the identity of the past, whatever its nature (Middleton & Woods, 2000), but there is not so much a present distortion of memories as is a past interference into present experiences (Connerton, 1989). Due to the strong relation between memories and imagination (Hume, 2007), lasting memory

can only be the product of an open heart: "Memory is the scribe of the soul. Remember that time slurs over everything, let all deeds fade, blurs all writings and kills all memories. Exempt are only those which dig into the hearts of men by love" (Aristotle, 1971, p. 72). Given that the only way in which past and present can be repeatedly together is through recollection (Middleton & Woods, 2000), memories represent so shifty a part of an uncontrollable existence, yet the process of denotative remembrance becomes more accurate when mental images are attached to real things (Yates, 2014). Only through present perception can the memory of a past event come back to life; the quest for identity therefore leads to regular walks down memory lane given that only by comparing the past to the present can both individuals and societies secure their sense of self (Nietzsche, 2007).

In Hinduism, memory is divided into eight units that comprise all aspects of human individuality: "elemental, atomic, evolutionary, genetic, karmic, sensory, inarticulate and articulate" (Vasudev, & Subramaniam, 2017, p. 107). Although all human beings are universally endowed with the freedom to decide and choose by conscious endeavor, ancestral and transgenerational conditioning deprives them of their authenticity through the many channels of memory, which are thus as much badges of identity as they are elements of confinement. Human knowledge will always prove limited, being mainly the creation of the intellect. Only by embracing their faulty nature can humans allow the sparkle of consciousness in them to break free of purpose again, since life as such is only a process with no utility whatsoever (Sadhguru, 2014). By accepting the shifty nature of memory, humans can go beyond their physicality, with real chances of accessing the bank of ancestral memory, deep within their subconscious mind. And, by so doing, they can have access to the pure, memory-free intelligence of the Universe, which is the basis of all creation. Once humans have stopped looking for clear-cut answers, they will give a new purpose to their faulty memory processes and will thus start living authentic lives within the confines of their unique physicality.

ISHIGURIAN MEMORY

Memory-based identity forms itself in time. People recall past events based on their beliefs and habits, which consolidate their worldviews or lead to epiphanic life changes, beyond their nationalistic identities and nearer to their cosmic nature. Either way "is only possible in and through the fabric of narrative itself" (Freeman, 1993, p. 21). Only human beings seem to have the ability of travelling back and forth in time while deriving thoughtful and emotional understanding from their temporal projection. The phenomenon of autonoetic consciousness thus proves the interrelation between time, memory, imagination, emotion, intelligence and consciousness, all of which help create the concepts of identity and self-awareness (Klein, 2016).

According to the Lockean theory of personal identity, there cannot be a sense of self without the capacity of recording and remembering the experiences and sensations of the past (Locke, 1975). The empiricist's belief may sound quite intuitive yet it certifies the psychological importance placed on memory when the most important question has not yet been answered: What exactly makes recollections so vulnerable? If human identity very much depends on the natural unreliability of remembering personal histories, then the very act of building self-awareness mainly depends on memory manipulation. Humans' sense of self is therefore only an illusion and herein lies the limitless beauty of its true identity. Nowhere else has this truth been better pictured than in literature: "Numerous texts portray how individuals and groups remember their past and how they construct identities on the basis of the recollected memories. They are concerned with the mnemonic presence of the past in the present, and they illuminate the manifold functions that memories fulfil for the constitution of identity" (Neumann, 2008, p. 333). Most first-person narrators, however, leave the reader outside the interpretative mode, "making the operation of their minds

the true subject matter of the story" (Goldknopf, 1972, p. 41). That is not the case with the English writer of Japanese origins Kazuo Ishiguro, whose characters place upon the reader the great responsibility of finding the truth "through the words of narrators who themselves largely fail to see it" (Wong, 2005, p. 127).

According to Hutton's (2016, p. 6) extensive study on memory, Ishiguro decidedly explores the third line "of inquiry into the puzzles of memory's relationship to history [that] came to the fore during […] the 1980s the crucial decade […] throughout Europe and North America: […] the disabling effects of trauma on historical understanding with particular emphasis upon […] World War II". By focusing on memory, Ishiguro thus proves the universality of the human condition: Like any closed system, every human being is yet another case of entropy (Martell, 1946). The only state of harmony is at birth. From that moment on, each person moves one step further to their entropic closure. In other words, humans are prone to disorder and therefore programmed to do harm to themselves, in accordance with the second law of thermodynamics. By intuition, Ishiguro has embraced this universal truth and wants to help others to do the same. Accepting that human condition is faulty by nature may prove liberating and herein lies true healing. Through "psychological mystery-voyages into the protagonist's problematic or compromised past" (Shaffer, 1998, p. 595), Ishiguro teaches his readers to liberate themselves not by changing the realities that hurt, but by fully embracing them. His awareness of the healing power of memory is therefore acknowledged in most of his interviews: "I'm interested in memory because it's a filter through which we see our lives, and because it's foggy and obscure, the opportunities for self-deception are there. In the end, as a writer, I'm more interested in what people tell themselves happened rather than what actually happened" (Dunn, 2000). "I like memory, at various levels. At a purely technical level, I like it as a method of telling a story – it gives me plenty of freedom … And I just like the texture of memory as well" (Liquori, 2005). "I've never written anything that didn't, in some important way, concern childhood and memory. […] I've always been interested in memory, because it's the filter through which we read our past" (Book Browse). Although not particularly attracted to Proust's fiction, Ishiguro admits that he cannot help being influenced by the French author's fascination with memory. Using his own autonoetic consciousness, Ishiguro thus manages to glorify "the maze of human memory – the ways in which we accommodate and alter it, deceive and deliver ourselves with it" (Shaffer & Wong, 2008, p. 193).

Another biographical reason for fictional recollection is to give life to a personal Japan. Early displacement may have caused strong effects in the six-year-old Japanese boy brought to England, whose subconscious naturally urged towards rooting (Shaffer & Wong, 2008). The fear of returning to his homeland, after thirty years, was based on Ishiguro's realization that his grand memory of Japan would clash with the harsh reality (Shaffer & Wong). Memory mainly depends on the unfolding of time in sequences worth remembering yet the order of recollection is most often open to present manipulation. This non-chronological approach is one of Ishiguro's favourites (Liquori, 2005). In his interviews, the author usually acknowledges the many forms of temporal freedom that memory can offer a writer (Shaffer & Wong, 2008). Along with using a language that "suppresses meaning and tries to hide away meaning" (Vorda & Herzinger, 1991, p. 70), this may be the most therapeutic way to make credible the turmoil of his characters, who "have suffered a deep psychological rupture in their lives" and are then forced to fight "a long-standing battle to relate their past to a present with which it does not seem to fit" (Sutcliffe, 2000, p. 49). In the cathartic process of discerning their true identities, Ishigurian characters have to drag themselves through the miry lands of past and present feelings so as to reduce the ambivalence of their emotional

state to an equation to deal with more easily (Wong, 2005). In other interviews, Ishiguro speaks about the consequences of adjusting humans' small worlds to the big worlds they belong to, and in his novels this concentricity goes even further down: The small world of any memory is inadvertently adjusted to the bigger world of the present, hence the narrators' unreliability.

One example of fallible recollection is the way Etsuko connects, in *A Pale View of Hills*, a series of child killings to her sense of foreboding, through the disturbing image of a girl hanging from the tree trunk (Ishiguro, 1990). The reason why the female protagonist starts recalling her past life is that her eldest daughter, Keiko, who lived in a rented flat in Manchester, has recently strangled herself. Her hanging from the ceiling keeps haunting the bereaved mother, although Etsuko pretends that "such things are long in the past now and I have no wish to ponder them yet again. My motives for leaving Japan were justifiable, and I know I always kept Keiko's interests very much at heart. There is nothing to be gained in going over such matters again" (Ishiguro, 1990, p. 91). The visit of Etsuko's younger daughter Niki is the perfect setting for a cathartic return in time, so the protagonist proceeds to recall essential moments of her life in a suburb of Nagasaki in the early 1950s. The Proustian madeleine is represented in the novel by the little girl Etsuko and Niki notice playing while staying in a café: The image triggers involuntary memories from Etsuko's time in Japan.

Memories cannot be recalled accurately even when the human mind proves able to do so. Studies on attribute framing show the importance of how events and situations are presented (Krishnamurthy, Carter, & Blair 2001). In the same vein, there are basically two ways of recounting a memory: focusing on its ups or downs. Narrators will choose either perspective based on their present circumstances, which have brought forth that particular recollection in the first place. If circumstances are good, memories will be positively framed; if the inner and outer environment contains momentous, dramatic or tragic events, then memories will be tailored accordingly. Either way, Ishiguro's characters have the strength to acknowledge their recollecting weaknesses, otherwise inherent in human nature: "Memory, I realise, can be an unreliable thing; often it is heavily coloured by the circumstances in which one remembers, and no doubt this applies to certain of the recollections I have gathered here" (Ishiguro, 1990, p. 31). "I don't remember if it was before or after the class, or how full the room was" (Ishiguro, 2010, p. 53). "[…] I cannot be sure today how much of my memory of that morning derives from what I actually witnessed from the landing, and to what extent it has merged over time with my mother's accounts of the episode" (Ishiguro, 2001, p. 69).

Distortion of memories within memories appears in connection with the poor district of Nishizuru, in Ishiguro's second novel, *An Artist of the Floating World*: "Viewed from the bridge, a stranger may well have assumed that community to be some derelict site half-way to demolition were it not for many small figures, visible on closer inspection, moving busily around the houses like ant swarming around stones" (Ishiguro, 1989, p.14). The artistic promotion of militarism in Ono's propaganda poster *Complacency* presents the three boys that the painter has accidentally met in the poor district while they were torturing a poor animal with their sticks. However, the social-nationalistic ideology plagues the human spirit, depriving it of its freedom of expression: Ono is so indoctrinated that he paints the three young tormenters with "manly scowls of samurai warriors" holding their sticks "in classic kendo stances". Their raggedly heroic image, which indicates that they are "ready to fight for their dignity", contrasts with the "three fat, well-dressed men, sitting in a comfortable bar laughing together" (p. 168).

Ishiguro's personal goal is to come to terms with his Japanese-English identity, which translates, artistically, into Stevens' desperate need to forge a close bond between his past and present, in Ishiguro's third novel,

The Remains of the Day (Connor, 1995). While his new employer returns to America for a while, the old butler makes a well-deserved trip through West Country in order to answer in person the letter he has received from Miss Kenton, the former housekeeper of Darlington Hall. While admiring the English countryside, Stevens has nothing else to do but rethink his life at Darlington Hall in the years between the two world wars, when he had a professional connection with Miss Kenton as they were both serving Lord Darlington. Thus, while road tripping, Stevens keeps wondering why his employer has chosen to sympathise with the Nazis, despite his true Englishness, and whether he might have actually pushed Miss Kenton into a marriage she did not want. Ironically or not, the housekeeper takes the decision to leave Darlington Hall on the evening of the momentous meeting between the English diplomats and the German ambassador, which Lord Darlington has organised so laboriously by virtue of his impeccable butler. The recollecting time is directly connected to the English countryside Stevens travels through.

In Ishiguro's fourth work, *The Unconsoled*, memory's dependence on one's worldview transpires in the different responses the Sternberg Garden elicits from Miss Collins and her lost love, Mr Brodsky: "[…] Miss Collins, looking around at the flowers and ferns, clapped her hands in delight. Brodsky […] looked at the garden without enthusiasm, but seemed to take satisfaction from the fact that […] they had complete privacy." (Ishiguro, 2013, p.432). *The Unconsoled* has anything but a logical narrative thread due to the authorial will to disrupt the chronological display of present events. Ishiguro may love the human mind for its eccentric and meandering nature, but his fourth novel takes the recollecting process to the next level. Those who cannot let themselves deprived of the reason-based fathoming have the right to regard this book as a bad peculiarity, since it can indeed trigger all sorts of sensations, similar to intermittent light stimuli for epileptic people. However, the novel can also have the opposite effect, by creating a state of helpless serenity, born out of the truth that nothing can ever be fully controlled.

In *When We Were Orphans*, Christopher Banks undergoes a recollective dichotomy of Shanghai, his childhood image jarring painfully with the narration of his adult search for his parents. Like Japan or England in Ishigurian novels, the Chinese city is a recreation of reality through the lenses of personal memories fuelled by the biography of Ishiguro's own father (Book Browse). Transgenerational memories are thus immortalised while Ishiguro acknowledges the transcendence of recollection in time across generations. Moreover, in accordance with the scientific research on differences between male and female characteristics (Whitesel, 1984), some of Christopher Banks' memories also divide based on gender (Shang 5), the recollection of his mother always being gentle and heart-warming (Ishiguro, 2001, p. 74). Ishiguro admits that nostalgia is strongly connected to recollection, both in positive and negative ways, hence his deep interest in its intricate psychology (Book Browse).

In Ishiguro's sixth novel, *Never Let Me Go*, Kathy's almost-dry memory of Hailsham students' clone identity further deepens the crevices of her resigned soul, although she pretends to be Ruth and Tommy's rock until the very end: "I suppose it was because even at that age – we were nine or ten – we knew just enough to make us wary of that whole territory. It's hard now to remember just how much we knew by then. We certainly knew – though not in any deep sense – that we were different from our guardians, and also from the normal people outside; we perhaps even knew that a long way down the line there were donations waiting for us" (Ishiguro, 2010, p. 63). The idea of clones meeting their *possibles* is suffused not so much with the pitiful hope in a future that will not exist as with clones' childish curiosity to see their human essence. Ruth, who is an ardent dreamer at heart, suffers so much when the woman she seeks turns out not to be her model that she considers all humans trash to be cloned

(Ishiguro, 2010, p. 127). It is the guardian Miss Lucy, though, who shatters clone students' hopes of distant futures, with mundane lives that wear on in bizarrely pleasant ways, much like those of their models: "None of you will go to America, none of you will be film stars. And none of you will be working in supermarkets as I heard some of you planning the other day. Your lives are set out for you. You'll become adults, then before you're old, before you're even middle-aged, you'll start to donate your vital organs. That's what each of you was created to do" (Ishiguro, 2010, p. 81).

The magical effects of the dragon's misty breath in *The Buried Giant,* are very much similar to patient HM's amnesia. "There's a whole society where people are suffering some sort of collective, and strangely selective, amnesia. […] There's a couple who fears that without their shared memory, their love will vanish. […] the nation around them is in some kind of strange tense peace" (Chang, 2015). Although the yearning for the truth prompts people and nations to awaken the buried giants of safely secreted memories, as soon as personal and collective memories are restored, Britons and Saxons return to war while Axl separates from Beatrice. This proves that no hurtful feeling left undealt with can ever heal by itself or be replaced by newly found love, no matter how much time goes by.

Klara and the Sun, Ishiguro's eighth novel, and the first after his winning the Nobel Prize in literature in 2017, is narrated by a robot that tries to understand human nature, humanity and their inherent traumas. Ishiguro thus conveys a dystopic future of mankind, with aggravated inequalities, genetic favours and obvious advantages of the elite, like artificial friends as companions and home-school assistants. The non-human Klara very much depends on the Sun to exist just as the whole human world does, although the faultiness of both individual and collective memory indicates that the gratitude for simply being seems to have been forgotten along the way. In the last chapter, Klara's otherwise faultless memory suffers some technical imbalances, as its "segments begin to slideshow from one to another […] just like a well-edited movie scene" (Yang, 2021): "Over the last few days, some of my memories have started to overlap in curious ways. […] know this isn't disorientation, because if I wish to, I can always distinguish one memory from another, and place each one back in its true context. Besides, even when such composite memories come into my mind, I remain conscious of their rough borders […] Even so, such composite memories have sometimes filled my mind so vividly, I've forgotten for long moments that I am, in reality, sitting here in the Yard, on this hard ground" (Ishiguro, 2021, p. 180). The cause for Klara's memory overlapping seems to be emotion, which renders artificial recollections more akin to the fragility of their human counterparts. Ironically, the solar-powered humanoid can muster true love, the kind of which humans like fragile Josie, her mother and her friend Rick can only idealise and yearn for.

Ishiguro's characters ruminate and talk about their past while trying to preserve, heal or re-establish their identities through recollection, a psychoanalytical endeavour that seems to come naturally in both humans and robots thanks to their linguistic abilities. Moreover, by tapping into the fragile realm of autobiographical memory, Ishiguro's protagonists not only seek to figure out and make peace with their past identities, but they also acknowledge and seal their social transactions, past and present. Ishiguro's all-encompassing message is a blend of Buddhism, Taoism, Confucianism and Hinduism, which all share the principles of living in harmony with the Universe insofar as the human condition allows. Buddha, Confucius and Lao-tzu, the founder of Taoism, are all sages and luminaries that have taught the ways of enlightenment by silencing one's intellect and identifying oneself with the universal consciousness (Ho, 2007). Ishigurian novels' open ending is thus an overt invitation to personal interpretation and recollection so that readers can reconfigure their own identities by interpreting Ishiguro's messages in their own ways.

CONCLUSION

Regardless of specialisation, all fields of memory research influence each other while interacting continuously. Special aptitudes, either natural or acquired, may be necessary to divide and analyse the logical affinities of memory concepts and theories, yet only an integrated interpretation of all areas of scientific and humanistic research, for a comprehensive understanding of how the human mind functions, will suffice.

As a case study, Ishiguro's avid interest in the workings of the memory far exceeds the confines of literature, anatomy and neuroscience, reaching the more intuitive realms of spirituality as yet another proof of integration in the study of memory distortion. Ishigurian characters remember with both intellectual and emotional sophistication in order to recreate or recuperate their identities. In the end, the sole purpose for recollection in Ishiguro's novels is reaching closure with the past in order to heal the present, or "trying to wring some happiness out of life before the lights go out". Only thus can the protagonists regain and preserve their universal identities and reach inner peace, and along with them so will readers.

All in all, personal and collective identity very much depends on the accuracy of recollection while an integrative study of memory can only stem from professional collaboration of all fields of memory research.

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