Seeking Attention

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Carolin Duttlinger, *Attention and Distraction in Modern German Literature, Thought, and Culture* (Oxford: Oxford University Press, 2022), 437 pp.

Enrico Campo, *Attention and its Crisis in Digital Society*, translated by Ian Richard (London: Routledge, 2022), 221 pp.

Carolyn Jennings, *The Attending Mind* (Cambridge: Cambridge University Press, 2020), 252 pp.

‘It is the nature of true attentiveness that, in the moment, it transforms nothing into everything.’[1] In Johann Wolfgang von Goethe’s *Wilhelm Meister’s Journeyman Years* (1821/29), the rules of the hero’s journeying dictate that he must always move forward. Wilhelm may not stay longer than three days in any one place; he must wander at least one mile further each day. The novel, a series of loosely connected episodes and interpolated novellas, demands attentive reading to notice the symbolic patterns across the narrative. At the same time, it involves a constant stream of distractions and digressions – unexpected new characters, opaque rules, maxims that lead to extended reflection. Attentiveness, for Goethe, was a way to poeticize and make sense of the distractions and deviations of wandering. Just as the novel’s plot imposes both onward movement and necessitates a lingering upon description, readers of its five hundred-odd pages undergo the mental experience of paying attention and being distracted. ‘Ist fortzusetzen’ are the apt last words of the text – ‘to be continued’, as though the author himself became distracted and would return to his task later.

The concept of attention is laden with paradox and difficulty. ‘Every one knows what attention is,’ William James claimed in his foundational text *Principles of Psychology* (1890), but everyone also struggles to define it.[2] One problem is that the researcher of attention must employ the same concentration of cognitive abilities that they are trying to investigate, such that any separation of the subject and object of analysis becomes artificial and awkward to maintain. Another difficulty is that attention is something (a mental state, a capacity, or an experience?) that shifts according to social, economic and technological conditions. The landscape of attention and distraction explored by Immanuel Kant in 1798, William James in 1890, and by the contemporary cultural theorist N. Katherine Hayles today appears very different across time. Nonetheless, there are important continuities which emerge across the comparative historical perspective, some of them in evidence since at least the classical era. Each of three recent books reviewed here, *Attention and Distraction in Modern German Literature, Thought, and Culture* by Carolin Duttlinger, *Attention and its Crisis in Digital Society* by Enrico Campo and *The Attending Mind* by Carolyn Jennings, brings a historical perspective to bear upon this modern problem. How and why can the human mind enter a state of quasi-magical attentiveness, only to snap out of it in distraction, then to return again in a changed state? Attention is an achievement of the mind, yet eludes complete intellectual control; it is an experience in itself and also, as Goethe’s line suggests, transforms the rest of experience.

The earliest writings on attention take it as prerequisite to, or function of, spiritual belief. In her elegant, wide-ranging survey of the historical uses and conceptions of attention at the beginning of *The Attending Mind*, Jennings gives an example of the line ‘Only he who attends, believes’ from the Chandogya Upanishad

(c. 7-6 BCE).[3] In English, the first use of the word is found in Chaucer's translation of Boethius's *Consolations of Philosophy*, in which 'ententif' (related to French *entendre*) and 'attencioun' appear in a passage on how the attentive activity of philosophy comforts the author in prison.[4] The Latin verb 'attendo' denoted a kind of intent observation via listening, as suggested by the common Old Testament hendiadys *audi et attende* (listen and pay heed).[5]

The English verb 'to attend (to)' has a second important connotation: that of *presence* (a common usage in Shakespeare, as in ladies and gentlemen waiting upon their lords) and, relatedly, of waiting or expectation. Thus, attention entails both material and immaterial labour and has a dual temporality, at once rooted in the present and oriented towards an awaited future. The implication of presence in attention also produces a notion of *self*-presence. Even in the early formulations of attention, there is a striking impulse to instruct one's own mind, thereby positing it as a separate entity from the body or self. This tendency is associated with Descartes, who in *Les Passions de l'âme*, his 1649 treatise that argued that bodily passions are to be regulated and morally governed by the mind, described attention as an introspective activity directed by the brain. A similar impulse can be found in modern self-help and productivity manuals that purport to aid focus and to return attention (as they claim) to the control of the subject.[6] When contemporary figures take attention to be in crisis or out of control, they assume that it existed in a better state in an earlier, simpler time, that is: before modernity, the media age and the digital.

However, the perception of an overload of distracting stimuli is nothing new, nor is the desire to direct and maintain selective focus. Aristotle, in *De anima* (c. 350 BCE), wished to find the cause of 'de mē aei noein', of 'not always thinking'.[7] Centuries after Aristotle, Augustine lamented the fluctuations of what would now be

termed ‘attention’, entreating his mind to avoid the ‘disturbance of [its] affections’ in the *Confessions* (398–400 CE), and contrasting the human struggle to maintain undivided attention with God’s unlimited ability to see and know all things (*City of God*, 426 CE). In the modern era, the experience of distraction goes by many names. As Duttlinger indicates in her historical overview of the German terminology, the word *Zerstreuung*, which emphasizes dispersal or scattering, had by the early twentieth century prevailed over *Ablenkung*, whose morphology suggests diversion from a course (*ab-lenken*).[8] ‘Diversion’ touches upon the function of release that distraction can have, a meaning retained by the French *divertissement* (entertainment). Distraction may be considered a diversion from the course or continuum of attention to both thrilling and frustrating effect.

In recent years, popular interventions on this subject have sought to critique and remedy the social condition of distraction, which has certainly been intensified in the digital era.[9] As helpful as these contributions can be, they are often structured by a simplified binary between attention and inattention, an emphasis on the responsibility of the subject to impose their attention, and a reluctance to place digital technologies and apparatuses within a longer tradition of media technology. Campo’s *Attention and its Crisis in Digital Society* does much to dismantle these assumptions. Tackling at the outset the widely perceived problem of overload and excess of information, he notes that ‘we are generally always in a situation of “excess”, in the sense that there are always a large number of stimuli in our perceptual field to which we can potentially direct our attention, but which in fact we exclude’, and that systems of organising information, whether the eighteenth-century encyclopaedia or the online search engine, were invented to manage an increase in information.[10] To cast (new) media as a threat or aggressor, then – a dominant and understandable

tendency in our ‘age of distraction’, to borrow Paul North’s term, is to misunderstand their role in shaping culture and the mind.[11] North observes that ‘the disintegration of attention has been lamented [for fifteen hundred years], and every new decade and discipline seems to offer a new explanation and remedy for the loss’.[12] Duttlinger, Campo and Jennings each manage to avoid this fallacy of loss, each offering a nuanced, if differently angled, account of the other side of attention: the interruption or lack of attention known as distraction, dispersion, or inattention.

The greatest recent shift in the ability to pay attention results from the spread of information technology. The ascent of personal computing in the 1980s, closely followed by mass connection to the Internet, transformed individual and social experience. Over the last twenty years, computing devices have become increasingly miniaturized and wearable to the extent that they are prosthetic.[13] Yet this shift is by no means unprecedented, since historical and technological developments have always changed the game of attention. From the nineteenth century into the twentieth, a similar rate of acceleration propelled human societies into the period known as ‘modernity’. Industrialisation and urban living, the invention of media that collapsed time and distance, mechanized warfare on a grand scale, new discoveries about the human mind and the emergence of the discipline of psychology came together to form a fragmented and self-reflexive human experience that was qualitatively different to previous eras. The more recent development of digital and computational media therefore has a close historical precursor. Academic studies that attend to this precedent, as Duttlinger, Jennings and Campo do, serve as a corrective to the narrowness of a debate that often oscillates between the technocritical and what I would like to call techno-optimism, an appreciation of the convenience and novelty of new technologies so wholesale that it fails to

acknowledge the driving forces of global capitalism that steer and harness this same enterprise.[14]

In order to illustrate the differences in the emphases of each book, I will formulate three possible approaches to, or meanings of, attention. Attention might describe how a subject trains their mind upon an object of perception or a thought; this is what we commonly mean by ‘paying’ or ‘giving’ attention, as though attention were capital or a material object. One would then wonder how this process works, for instance if it is imposed by the subject or if it emerges when an object enters the sphere of consciousness. But even in this short description, philosophical problems abound: can the mind generate attention itself? How do the subject and object interact when thoughts and perceptions occur? How would attention fit into the wider experience of consciousness or awareness?

To try again: perhaps attention is best understood *ex negativo*, and the absence or wavering of attention known as ‘distraction’ or ‘inattention’ could suggest what is entailed in the positive concept. Take the oft-decried ‘crisis’ of attention, discerned in the constriction of our attention spans by the pervasive form of the fifteen-second TikTok video, or when attention is treated as a scarce resource in an economy that monetizes and degrades it. The deficit of attention has been categorized as a medical condition; diagnoses of ADHD (attention-deficit hyperactivity disorder), defined by the American Psychiatric Association as ‘a neurocognitive disorder marked by symptoms of hyperactivity, impulsivity and inattention’, have shown a marked increase in recent decades.[15] It is uncertain whether the greater prevalence of ADHD reflects more problems with attention in the general population, an increased medicalisation of mental conditions, or innovation in diagnosis and treatment.[16] It may also be seen as part of an emerging broader

picture of neurodivergence. From a sociocultural perspective, however, the negative view risks casting attention as something to be subdued, controlled, and hacked, rather than recognising the value of its irrepressible aspects: the beauty of surprising flights of distraction and day-dreaming, the pleasure of extreme immersion in an activity or artwork, the gift of respect rendered by paying attention and the possibilities of resistance in withdrawing it. Such approaches also tend to fetishise mental processes to the exclusion of embodiment, even though the natural and cognitive sciences continue to reveal the mind and body as connected in ever more complex and unexpected ways.

The less quantifiable aspects of attention and inattention have captured the imagination of writers and artists, from Montaigne's aestheticization of diversion, to Brecht's theatrical techniques that shock the spectator into paying attention, to the attentive 'Deep Listening' of Pauline Oliveros. The topic could thus be approached by a third way: through cultural production. Artists are always engaged in a negotiation of attention with their audience, and so the close study of their processes, techniques and engagement with form, whether it be narrative structures or the aesthetics of photography, has much to tell us about why and how people become absorbed in art – or indeed, why they might look away in boredom or frustration.

If art is the domain of virtual creation, then societies are moving progressively into this 'artistic' space. The struggle for attention plays out today on an imagined virtual platform that now supersedes the 'real'. Baudrillard theorized this space as 'hyperreal', 'a real without origin or reality', free from 'any distinction between the real and the imaginary'.[17] There are distinct formal features of Internet apps, screen and audio media that are streamed, recorded and replayed, but as numerous cultural critics have insisted, these features are continuous with, not separate from, more

classic strategies of representation such as narrative description, lyric poetry, or depictions in painting. The cultural critique and philosophical investigation of how attention is formed and distributed by these means is one of the best ways to approach the question, because it necessitates an interrogation of those objects that attract and repel our attention at the same time as one is absorbed in attentiveness to them. This type of immanent critique, undertaken by the three books under discussion, is an essential tool for investigating a capacity like attention, poised as it is between the individual and the social, within and beyond the mind, and relating to affects, drives and mental phenomena that fluctuate between the biological and the cultural.

Critique and scientific research are the natural preserve of academics, but the arena in which attention has been most hotly discussed is in fact within mainstream public discourse, that zone where specialism meets popular and generalist thinking. Everyone struggles with attention, from the multitasking worker-from-home to those prescribed ADHD medication to regulate their behaviour. In the public forum, the subject of attention has been dominated by ideas that have filtered down from medical and sociological approaches, characterized by a co-existence of cultural pessimism and future-oriented optimism. On the one hand, there is a move to pathologize and moralize, caricaturing a society so distracted by smartphones that people struggle to focus on a single page; on the other lies the promise that if only individuals could master or marshal this unruly cognitive capacity (often with the aid of a product or service), they would be happier, richer, more successful.[18] Critical theory in the Humanities and Social Sciences shies away from the medical-scientific impulse to diagnose and treat, contributing instead to a more holistic, culturally determined understanding of attention and inattention. Scholars such as Kristin Veel

have investigated the ramifications of apparent ‘information overload’ in the digital era, finding that ‘today we often thrive with multiple inputs at a fast pace, whereas less input potentially results in distraction and boredom’ and problematizing the traditional demarcations between attention, distraction, concentration and boredom.[19]

The American philosopher Carolyn Dicey Jennings is ‘a key player in the attention revolution’, having published a number of articles since 2012 that have established attention as a valuable object of study alongside the problems of consciousness, selfhood, agency and moral responsibility.[20] *The Attending Mind* (2020) is a rigorous, book-length articulation of her central thesis that attention should be taken as ‘evidence of an emergent self with its own causal powers’ and ‘the work of a subject’.[21] The subsequent chapters follow the myriad implications, both philosophical and practical, of this idea, ranging from the role of attention – or indeed its lack – in constituting perceptual knowledge, consciousness, moral action and responsibility. Jennings approaches attention from the angle of analytic philosophy informed by psychology, cognitive neuroscience and phenomenology, and so the material covered here is distinct from, although complementary to, the discursive approaches pursued in the two other books.[22]

Enrico Campo’s *Attention and its Crisis in Digital Society* appeared (in the original Italian under the title *La testa altrove*, ‘Head elsewhere’) in 2020, a year whose public health crisis, the COVID-19 pandemic, necessitated an unprecedented reliance upon digital technology. A readable English translation by Ian Richard brought the work to a wider audience in 2022. Campo’s book contests the idea that human capacities for attention have been eroded by digital media by offering a sociological analysis of the cultural and psychological paradigms that have shaped discussions of attention since the end of the nineteenth century. His six chapters

move progressively from a discussion of mental processes (consciousness and cognition, in the early chapters) towards his own specialization in the social and collective, achieving an admirable balance of material: a historical overview of psychological approaches to attention (accessible to those new to the field), a critique of the experimental and disciplinary biases that emerged during this process, a precise analysis of contemporary digital society, and an indication of how societies might better address the ostensible 'crisis' of attention today.

Campo's third chapter, 'Between the Mental and the Social', bridges the two halves of the book by providing a valuable account of how the discipline of psychology took shape in the decades after its first emergence in universities and research institutions at the end of the nineteenth century. It is well-known that the psychological theories of the nineteenth century (most famously of Freud) emerged from medical discourse and practice, yet Freud and those who followed in the psychoanalytic tradition were subsequently relegated to the sphere of culture. Indeed, perhaps literary and cultural studies are the only domain in which Freudianism is still taken seriously today. In modern psychology, Campo remarks, 'it is possible to identify two major ontological, epistemological, and methodological approaches: one that takes the natural sciences as reference point and the other that of the human sciences'.[23] After the Second World War the first branch began to assert itself, leaving little room for the 'second psychology', the culturally oriented kind.[24] As Campo observes, 'The dominant historiography (principally from the United States) has therefore equated the experimental method with scientificity and thus excluded a substantial part of the psychological perspectives that had […] different origins'.[25] It is a salutary reminder that experimental and cognitive psychology have suppressed the importance of history, culture and society in this

debate, although that aspect was originally what distinguished psychology from medicine. Just as the study of attention today is motivated by a desire to understand a part of the mind and experience that remains elusive or mysterious, academic psychology, as it originated in the late nineteenth century, was borne of a need to shift the emphasis away from the aspects of existence increasingly illuminated and demystified by empiricism, coupled with the knowledge that there was more to discover by other means.

Carolin Duttlinger's *Attention and Distraction in Modern German Literature, Thought, and Culture* also emphasizes a forgotten aspect of the discipline of Psychology: the centrality of German culture and scholarship to its origins. 'Psychology […] was, in some sense, a German invention,' she writes.[26] The culture and ideas of Germany and German-speaking Europe dominated the modern study of attention, through both ideas and people. The psychoanalytic tradition, predicated upon attentive listening to the patient, emerged from *fin de siècle* Vienna. Nineteenth-century Germany was where experimental psychology took root, and where the world's first psychological laboratory was set up in 1879 by Wilhelm Wundt at the University of Leipzig. Many influential American psychologists, including William James himself, spent periods studying in Germany. For their part, prominent German scientists also took up positions at US universities, making the laboratory and the university important sites of transnational exchange.

The most influential German psychologist to embark upon a career in the United States was Hugo Münsterberg. Münsterberg had studied under Wundt at Leipzig before coming to Harvard in 1892 at the invitation of William James, whom he succeeded as Chair of Psychology in 1897. His treatise *Principles of Psychotechnics* (*Grundzüge der Psychotechnik*, 1914) pioneered the application of

experimental psychology to professional and social questions. The term ‘psychotechnics’, referring to a method of vocational aptitude testing and behavioural training, had in fact been coined some years previously, by William Stern in 1903.[27] The methods and ambitions of psychotechnics are a current that runs through Duttlinger’s book. She shows how the concept revolutionized artistic process and style, influenced the reception of culture and media, and both bestowed and withdrew the sense of control that people felt over their minds and lives. Psychotechnics is incipient in the chapter that connects the key theme of vigilance and paranoia in Kafka to the world of human error, accident and inattention he inhabited as a long-time employee of the Workers’ Accident Insurance Institute. The psychotechnical is both device and discourse in Chapter 6 on Weimar self-help literature, in which Duttlinger shows that even devices as bizarre as Philipp Müh’s *Konzentrator* can be understood as a symptom of a society under extreme political and economic pressure, keen to use the latest technologies to impose control on disturbance and disorder and return to simpler times of imagined stillness.[28] As Duttlinger suggests, Weimar self-help anticipates some of the most popular approaches to attention today: the hacks, the products that promise to banish distraction by means of individual control, the commercial proliferation of meditative and contemplative techniques (*Neugeist* meditation then, mindfulness now).

Psychotechnics also becomes central to the meticulous attention in Chapter 8 given to Walter Benjamin’s widely known (and often oversimplified) essay *The Work of Art in the Age of Mechanical Reproduction* across its five versions. Duttlinger’s reading of this influential essay is a highlight of the book. In her analysis, Duttlinger not only restores depth to the many cuts and changes made to meet the stringencies of publication, but also draws out the continuities in Benjamin’s thinking through

archival work. Further, she places it within the context of Benjamin's 'persistently dialectical model of attention' which 'can only be grasped in its fluidity' by turning to his journalistic writings and literary essays from the same period.[29] Readers of the essay generally extract Benjamin's 'reception in distraction' (*Rezeption in der Zerstreuung*) as its kernel, i.e. a valorization of perceptual changes brought on by the mass production of artworks and new media, especially film. Yet distraction is only one part of Benjamin's arguments, and the way in which Benjamin transforms its largely negative associations into a 'state which condenses the revolutionary nature of cinematic experience' is a result of a complex philosophical engagement with the collection and dispersion of attention, contemplation, ritual and habit.[30]

It is evident that Benjamin's thinking lies at the heart of Duttlinger's dialectical understanding of attention and distraction in this book.[31] *Attention and Distraction* is an exceptionally well-researched blend of cultural history, literary study and critical theory, each element as lucid and illuminating as the other, a culmination in book form of a theme that has occupied Duttlinger for over fifteen years. Over ten chapters, she follows the topic of attention from Enlightenment education through psychoanalysis, psychotechnics, the aesthetics and reception of new media such as photography and film, listening and composition, and finally to a conclusion that reflects upon the echoes of modernist preoccupations with attention that persist in post-1945 writers.

The concept of attention as something restless and volatile on a continuum with inattention is highly productive. This appreciation of the instability of attention, where the relations of causation, volition and control are anything but straightforward, is also what gives Jennings's *The Attending Mind* its streak of intellectual boldness. It is difficult to apply paradigms of analytic philosophy and

empirical science to this phenomenon, and it is to the author's credit that she does not try to make attention fit into these, instead expanding the reach of these paradigms by incorporating insights from phenomenology, psychology and legal ethics. A fascinating example is provided in the chapter on 'Attention, Consciousness, and Habitual Behaviour' where Jennings provides her account of 'conscious entrainment', a form of consciousness that does not require attention (*contra* the majority of thinkers who take it as necessary for, equivalent to, or part of consciousness). Jennings, who is practised in life drawing, recounts an instance from her own experience when she was drawing from her model, a pregnant woman:

> I chose red paper and set out to capture her image with quick, bold movements. But unlike other sessions, in this one I suddenly "woke" mid-drawing as though from a dream. I had been lost in the moment, but I was now suddenly aware of myself. While I knew that the moment before I had been conscious, the structure of that experience was unlike what I was now experiencing. I had lost my sense of self, which was now present again. I had felt deeply connected with the model and my drawing, which now felt separate from me. I had been drawing with ease, but felt that continuing would require effort. The experience was remarkable enough that I remembered it, years later, when I wondered if any experience could demonstrate consciousness without attention.[32]

What the author describes is a skilled activity, practised to the extent of becoming habitual, thus engendering an absorption so great that attention is no longer required to carry it out. It is telling that this and other examples are taken from the fields of

high-stress performance or creativity, such as professional sport and music. The three essential features of conscious entrainment are, Jennings argues, a relationship of ‘complete absorption’ between subject and task; an effortless focus beyond the subject’s direct control; and the absence of experiential divide between the subject and object.[33] Generally, the best understanding of conscious entrainment is provided by experiencing it, but – significantly – Jennings suggests that ‘it may be possible to recognize these characteristics in [others’] descriptions’.[34] This resonates with recent innovations in cognitive and embodied approaches to literary and cultural studies. One of the foremost critics in this field, Terence Cave, holds that ‘literature does what the human mind (cognition) does best – it specializes in cognitive fluidity, the tangled connectivity and capacity for improvisation that enable it to engage with the world in “decoupled” mode’.[35] In this sense, literary study, cognitive neuroscience, philosophy and psychology are all part of the same endeavour: understanding how the mind processes, represents and reenacts experience.

Jennings’s analytic investigation of skilled habitual activity presents suggestive parallels with the notion of habit (*Gewohnheit*) in Walter Benjamin. In the short text ‘Gewohnheit und Aufmerksamkeit’ (‘Habit and Attention’) from the *Ibizan Sequence* of 1932, Benjamin opens with a version of the quotation from Goethe that I cited at the beginning of this article: ‘Foremost among the human capacities, according to Goethe, is attention’ (Die erste aller Eigenschaften, sagt Goethe, ist die Aufmerksamkeit).[36] He develops the puzzling idea that the stability of habit and the interruption of alert attention are not opposites, but rather two elements that flow into one another. In this argument, the most intense form of attention emerges from a state of habit. Benjamin associates dreams with a special kind of attentiveness (‘a new and unprecedented attentiveness’, [ein neues und unerhörtes Merken]) that is

not surprised at the images and perceptions that loom larger and more brightly in dreams than in reality.[37] He thus creates a link between the particular type of sustained attention that operates in habit and the type of attention at work in dreams, both of them apparently beyond the reach of conscious thought. Similarly, in Jennings's discussion of habitual behaviour, dreaming is among the three further forms of consciousness that are similar to conscious entrainment, forms that 'reveal a diminished capacity to attend to and remember conscious stimuli': dreaming, consciousness in patients with ADHD, and states of hypnosis.[38] Jennings proposes that conscious entrainment allows the subject 'a more direct relationship with sensory input and behavioral response, without the mediation of attention and the information it brings'.[39] Of course, there are major differences between Benjamin and Jennings in methodology and background, but it is striking that their ideas have a common core: that attention is part of our sustained experience and yet rises and falls, with its conscious and voluntary aspects even subsiding at moments of extreme focus.

All three works, *The Attending Mind*, *Attention and its Crisis in Digital Society* and *Attention and Distraction in Modern German Literature, Thought, and Culture* were published in a new moment of cultural crisis during the public health emergency of the COVID-19 pandemic. The threat and experience of life-threatening disease, together with uncertainty over its management, occasioned instant changes in social and labour organisation. One of the most enduring shifts has been to life lived digitally, where remote working and video-conferencing have become a norm and 'being online' is one of the primary modes of socialisation for children and young people especially. These technologies were used before COVID-19, but now that the immediate threat of the disease has waned, it is clear that these forms are here to

stay and that they have, to a certain extent, altered human social life and mental states.[40]

When a demo of the artificial intelligence tool ChatGPT (Generative Pretrained Transformer) was released in November 2022, it went viral, attracting responses of both delight and alarm. How can a machine be so clever, so responsive, so *attentive*? In fact, there really is a specific type of attention at work in the GPT model. GPT relies upon Transformer architecture, which was first outlined in an article published by Google-employed researchers in 2017 paper entitled 'Attention is All You Need'.[41] The authors showed that Transformer models are superior and quicker to train than previous machine learning models, and that this can be achieved by discarding the use of recurrent or convolutional neural network models and instead introducing one based solely upon 'attention mechanisms'. An attention function, they explain, involves 'mapping a query and a set of key-value pairs to an output, where the query, keys, values, and output are all vectors', after which 'the output is computed as a weighted sum of the values'.[42] Evidently, this is a specific computational understanding of attention, but as neural network architecture which mimics the behaviour of the brain, it is not so far from the aspects of human attention discussed so far. In simplified terms, GPT models are adept at learning and generating language because they are good at paying attention – where attention is a mechanism that uses probabilities to process an input, directing attention to assess the importance of certain words in relation to those around them, by which means a new output is created.

Transformer AI poses an immense challenge to modes of critique that rest upon the analysis of human language and creativity. N. Katherine Hayles's work on technogenesis and, more recently, the cognitive nonconscious, has been at the

forefront of criticism that examines the cultural and ethical implications of technical developments and their enmeshment with biological life.[43] She describes attention and distraction as a thread running through *How We Think*, her book investigating cognitive-intellectual processes and creative production in the wake of the digital media revolution. Hayles contrasts her notion of *hyper attention*, 'a cognitive mode that has a low threshold for boredom, alternates flexibly between difference information streams, and prefers a high level of stimulation' with *deep attention*, 'the cognitive mode traditionally associated with the humanities that prefers a single information stream' and that has a 'high tolerance for boredom'.[44] In the context of pedagogy, she also reflects upon how cognitive modes are shifting from the deep attention prized in humanistic critique to the more restless hyper attention of scanning and scrolling which is now the dominant style. The definition of ADHD proposed by Jennings presents a useful challenge to thinking about hyper attentiveness. She holds that 'ADHD is characterized by a diminished ability to exert voluntary control over the prioritization of mental and neural processing […] along with a reduced ability to remember'.[45] But if most us now generally operate on the level of hyper attention, is it suitable to frame the so-called deficit of attention as a disorder? We thus find ourselves in a state of paradox: the majority of people function at a level of attention figured as *in*attentive, distracted, deficient (whether medicalized or self-diagnosed), and much effort spent upon restoring attention to a fictional, mythologized whole. At the same time, 'attention is all you need' – the technical evolving attention that is based upon, mimics and is now shaping the human brain.

Attentiveness persists as a longed-for state of immersion, an ideal articulated with greater urgency now that digitalisation and real-time media have removed the

spatial and temporal bounds that previously facilitated sustained periods of focused attention. The historical view shows that those who study or reflect upon attention have always been frustrated with its way of escaping their attempts to pinpoint and control it. Rather than setting them against each other, attention and inattention should be understood along a continuum, in dialectical interplay and emerging from one another. The word ‘crisis’ comes from the Greek noun *κρίσις* (*krísis*) denoting a crucial turning point, usually in disease, to either recovery or death; it is related to the verb *κρῑ́νω* (*krī́nō*), to separate, decide, judge. A cultural or political crisis is a turning point or revolution after which things change or resolve. If attention is in crisis, perhaps this is because crisis – turning, interrupting, changing – is in fact its natural form. When the contemporary crisis of (in)attention is seen as part of the ordinary turning of the world rather than a threat, the distinct pleasures and potential of the fluctuations of attention will come into view.

[1]NOTES

‘Denn das ist eben die Eigenschaft der wahren Aufmerksamkeit, dass sie im Augenblick das Nichts zu allem macht.’ *Wilhelm Meisters Wanderjahre oder Die Entsagenden*, in *Hamburger Ausgabe in 14 Bänden*, edited by Erich Trunz (Munich: C. H. Beck, 1981), VIII, 24. Translation by Krishna Winston taken from *Goethe, The Collected Works*, X: *Conversations of German Refugees; Wilhelm Meister’s Journeyman Years*, translated by Jan van Heurck and Krishna Winston, edited by Jane K. Brown (Chichester: Princeton University Press, 1995), 109.

[2] William James, *The Principles of Psychology*, I (New York, NY: Dover, 1950), 403.

[3] Jennings, *The Attending Mind*, 10.

[4] ‘After þis she stynte a litel. and after þat she hadde / gadred by atempre stillenesse myn attencio*u*n she /
seide þus. ¶ As who so myȝt[e] seye þus. After þise / þinges she stynt[e] a lytel. *and* whanne she ap*er*ceiued[e] / by atempre stillenesse þat I was ententif to / herkene hire. she bygan to speke in þis wyse’ (Book II, l. 727-732).

[5] See Duttlinger, *Attention and Distraction*, 3.

[6] Campo, *Attention and its Crisis*, 4.

[7] ‘Not-always-thinking’ is the point of departure of Paul North’s excellent study which traces the ‘furtive and destructive force’ of distraction from ancient philosophy to Walter Benjamin: *The Problem of Distraction* (Stanford: Stanford University Press, 2012), 2.

[8] Duttlinger, *Attention and Distraction*, 2-5.

[9] See, for example, Harriet Griffey, ‘The lost art of concentration: being distracted in a digital world’, *The Guardian*, 14 October 2018, and Anna Goldfarb, ‘Stop Letting Modern Distractions Steal Your Attention’, *The New York Times*, 26 March 2019.

[10] Campo, *Attention and its Crisis*, 4.

[11] North, *The Problem of Distraction,* 1.

[12] North, 1.

[13] Two examples of such devices would be the barely-noticeable wireless earpiece or the smart glasses recently released in a collaboration between the sunglasses brand Ray Ban and Meta, the company behind Facebook.

[14] The Silicon Valley companies Google, Apple and Meta are examples of multinational corporations whose products have billions of daily users across the world, in personal, leisure and professional capacities. I use the term 'techno-optimist' to describe the widespread tendency to welcome the conveniences of digital technology and dismiss its more troubling aspects. The software engineer and venture capitalist Marc Andreessen places a more unconstrained, triumphalist form of techno-optimism at the centre of his self-published *Techno-Optimist Manifesto*. For Andreessen, the free market growth of technology is the natural expression of a human 'birthright' to assert control over nature, allowing 'intelligence' to dominate society. See Marc Andreessen, *The Techno-Optimist Manifesto* (16 October 2023), published online at < https://a16z.com/the-techno-optimist-manifesto/> (last accessed 18 June 2025).

[15] Between 2003 and 2011, the prevalence of children in the US ever diagnosed with ADHD increased by 42%, from 7.8% to 11%. Source available at <https://www.nimh.nih.gov/health/statistics/attention-deficit-hyperactivity-disorder-adhd> (last accessed 18 June 2025).

[16] For an overview of the history of this condition, see Lange et al, 'The history of attention deficit hyperactivity disorder', *ADHD Attention Deficit and Hyperactivity Disorders* 2:4 (2010), 241-55. The article includes discussion of attention deficit disorder (ADD) without hyperactivity, a category that was used in the 1980s before the subtype was removed and renamed in 1987 as the combined disorder ADHD. Some neurologists have contested the classification of ADHD as a disorder. See for instance Fred A. Baughman, Jr., 'Rapid

Response: ADHD is Neither a Disease or a Disorder', response to Tim Kendall, Eric Taylor, Alejandra Perez, Clare Taylor, 'Diagnosis and management of attention-deficit/hyperactivity disorder in children, young people, and adults: summary of NICE guidance', *British Medical Journal*, 337 (2008). Published online at < https://www.bmj.com/content/337/bmj.a1239/rapid-responses> [last accessed 18 June 2025].

[17] Jean Baudrillard, *Simulations*, trans. by Paul Foss, Paul Patton and Philip Beitchmann (New York: Semiotext[e], 1983), 2; 4.

[18] Popular TED talks on the subject include Tristan Harris, 'How better tech could protect us from distraction' (2014) and Amishi Jha, 'How to tame your wandering mind' (2017).

[19] Kristin Veel, 'Information Overload and Database Aesthetics', *Comparative Critical Studies*, 8.2–3 (2011), 307–19 (307; 308).

[20] Jesse Prinz, 'The Attending Mind' (review), *The Philosophical Review*, 131:3 (2022), 390–93 (390).

[21] Jennings, *The Attending Mind*, 5; 116.

[22] Those who wish to evaluate Jennings's interventions in ongoing philosophical debates and her claim to loosen several of its knots may consult Jesse Prinz's review of the work (see note 20 above). Prinz summarizes effectively the arguments Jennings presents in each chapter, applying pressure to her claim that attention arises from mental causation by a 'self', and suggesting implications that take Jennings's discussion into the sociopolitical domain. In this review article, I instead put *The Attending Mind* into dialogue with theories of culture.

[23] Campo, *Attention and its Crisis*, 53.

[24] Emily D. Cahan and Sheldon H. White, 'Proposals for a Second Psychology', *American Psychologist* 47:2 (1992), 224-235.

[25] Campo, *Attention and its Crisis*, 53.

[26] Duttlinger, *Attention and Distraction*, v.

[27] Stern was Jewish and was removed from his professorship in Hamburg in 1933 when the Nazis came to power. He was a cousin by marriage of Walter Benjamin.

[28] The *Konzentrator* incorporated a leather belt strapping ‘receptor plates’ to either side of the head, intended to produce a harmonious balance of spiritual energies, and its sale was accompanied by a booklet written by Müh promoting techniques of concentration and autosuggestion.

[29] Duttlinger, *Attention and Distraction*, 266.

[30] Duttlinger, 293.

[31] Duttlinger’s previous publications on this topic include ‘Between Contemplation and Distraction: Configurations of Attention in Walter Benjamin’, *German Studies Review* 30:1 (2007), 33-54 and in the pages of this journal: ‘Benjamin's Literary History of Attention: Between Reception and Production’, *Paragraph* 32:3 (2009), 273-291.

[32] Jennings, *The Attending Mind*, 148.

[33] Jennings, 150-51.

[34] Jennings, 150.

[35] *Thinking with Literature: Towards a Cognitive Criticism* (Oxford: Oxford University Press, 2016), 156.

[36] Walter Benjamin, *Selected Writings*, translated by Rodney Livingstone and others, edited by Michael W. Jennings (Cambridge, MA/London: Harvard University Press, 1999), II, 592; Walter Benjamin, *Gesammelte Schriften*, edited by Rolf Tiedemann and Hermann Schweppenhäuser, with Theodor W. Adorno and Gershom Scholem, IV.1, 407.

[37] Benjamin, *Selected Writings*, III, 592; *Gesammelte Werke*, IV.1, 408.

[38] Jennings, 154.

[39] Jennings, 157.

[40] Emily Baker and Annie Ring have theorized that the humans resulting from these alterations are new cyborgs, furthering Donna Haraway's concept of the cyborg as a 'hybrid of machine and organism'. In their account, Baker and Ring show that the cyborgs of keyworkers in PPE suits, administering medicine and supplying essential services during the pandemic, and the 'cybourgeoisie' of office workers and academics who could work from home, belong to a longer social trend in which machinic life has been woven into everyday professional and personal activities, such that the distinction between the two has been blurred. Rather than being cause for despair, the cyborgisation of contemporary life also brings new possibilities of equitably divided labour, connection, collectivity and pleasure. See: Donna Haraway, 'A cyborg manifesto: Science, technology, and socialist-feminism in the late twentieth century', in *Simians, Cyborgs and Women: The Reinvention of Nature*, 149–81 (New
York: Routledge, 1991), 149; Emily Baker and Annie Ring, 'Now are we Cyborgs? Affinities and Technology in the Covid-19 Lockdowns' in *Lockdown Cultures: The Arts, Humanities and Covid-19*, edited by Stella Bruzzi and Maurice Biriotti (London: UCL Press), 58-67.

[41] Ashish Vaswani, Noam Shazeer, Niki Parmar, Jakob Uszkoreit, Llion Jones, Aidan N. Gomez, Łukasz Kaiser, Illia Polosukhin, 'Attention Is All You Need', *Proceedings of the 31st International Conference on Neural Information Processing Systems* (2017), 1-10. See also N. Katherine Hayles, 'Inside the Mind of an AI: Materiality and the Crisis of Representation', *New Literary History*, 54:1 (2022), 635-666. Hayles provides a clear account of how attention mechanisms work on 639-642.

[42] Vaswani et al, 'Attention Is All You Need', 3-4.

[43] See N. Katherine Hayles, *How We Think: Digital Media and Contemporary Technogenesis* (Chicago: University of Chicago Press, 2012) and 'The Cognitive Nonconscious: Enlarging the Mind of the Humanities', *Critical Inquiry*, 42:4 (2016), 783–808.

[44] Hayles, *How We Think*, 12.

[45] Jennings, 154.