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Off-Peak: An Examination of Ordinary Player Experience

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ABSTRACT

Videogames’ increasing cultural relevance and suffusion into everyday use contexts suggests they can no longer be considered novelties. Broadly speaking, games research at CHI has concerned two forms of peak experience—historically, research aimed to support flow, or maximise enjoyment and positive emotions; more recently, scholarship engages with more varied experiences of intense emotion, such as emotional challenge. In different ways, both approaches emphasise *extra-ordinary* player experience (PX). Conversely, videogame play and PX have become more routine—indeed, more *ordinary*—as the medium’s cultural presence grows. In this paper, we argue that HCI games research is conceptually ill-equipped to investigate these increasingly common and often desirable experiences. We conceptualise “ordinary player experience” – as familiar, emotionally moderate, co-attentive, and abstractly memorable – articulating a phenomenon whose apparent mundanity has seen it elude description to date. We discuss opportunities to productively employ ordinary PX in HCI games research, alongside conceptual implications for PX and player wellbeing.

CCS CONCEPTS

• **Human-centered computing** → **HCI theory, concepts and models**; • **Applied computing** → *Computer games*.

KEYWORDS

player experience, ordinary experience, videogames, peak experience, optimal experience

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1 INTRODUCTION

Games and play research at CHI has increasingly recognised the broad variation in player experience (PX): in recent years, experiences such as meaning [61], appreciation [16], and emotional challenge [17] have gained traction alongside more foundational experiences of enjoyment [94], flow [144], and positive affect [90]. These constructs reflect varying aims and interests that have emerged and developed within the broader domain of HCI games research.

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Each strand of PX scholarship is alike, however, in locating videogames’ academic significance in the *extra-ordinary* experiences they support. This perspective is most overt in scholars’ exhortations of the medium [e.g., “the uniqueness of gaming experience is one important reason for the great success of digital games in general”; 158, p. 244], but is inherent to all research where games are used to improve another activity¹.

Videogames have also attained mainstream success: industry reports estimate that roughly two-thirds of people in Western countries play videogames [19, 20, 44, 83]; in Australia and New Zealand (for which detailed statistics are available), people play for over 80 minutes a day on average [19, 20]. Videogames, and the experiences they evoke, are rarely exceptional or novel for these people: play has become “a healthy part of [the] everyday routine” [19, p. 61]. Seen in this way, the unique, intense, or memorable experiences that structure much of HCI games research are highly *atypical* [112] – indeed, the experiences that videogames reliably and desirably evoke are more often *ordinary*. The ways that experience is conceptualised in HCI games scholarship is yet to account for the appeal of ordinary PX.

In this paper, we argue for the importance of ordinary PX, synthesising developments in HCI, consumer research, and game studies to identify its primary elements. In the following, we conceptualise ordinary PX in terms of its salient properties – as being familiar, emotionally moderate, co-attentive, and abstractly memorable – before outlining its applications to HCI games research. The present work therefore contributes a vocabulary for PX scholars to discuss and study a prevalent yet overlooked phenomenon. In making ordinary PX available for further theoretical and empirical inquiry, we articulate conceptual implications with respect to other topics of interest within HCI games research, such as wellbeing. In complicating the centrality of extra-ordinary experiences in conceptual and practice-led HCI games scholarship, our conceptualisation extends PX theory development and contributes to the ongoing maturation of the field [104]. Moreover, our work demonstrates that established PX constructs and methods are poorly-suited to account for arguably the most common player experiences: players are not exclusively drawn to play videogames to experience maximal interest, curiosity, need satisfaction, or strong emotions – constructs that have to date consumed the bulk of attention in HCI games research. Finally, conceptualising ordinary PX contributes to a more comprehensive view of extra-ordinary player experiences, and a shared vocabulary that helps articulate its fundamental qualities.

¹Carter et al. [23] alternatively interpret this research as devaluing games as objects of study, but we believe it more likely reflects an *optimism* towards the medium’s transformative potential.

2 EXTRA-ORDINARY EXPERIENCE

The study of extra-ordinary experience – its varieties, characteristics, and antecedents – has a long tradition in psychology and other fields concerned with human experience. Maslow, for instance, described *peak experiences* as rare and unexpected “moments of highest happiness and fulfillment” [92, p. 69] that surpass other experiences in richness, intensity, and meaningfulness. Peak experiences are usually associated with religious or mystical epiphanies that transcend the self [120]. *Peak performance*, in contrast, is understood as “an episode of superior functioning” [120, p. 1361] and “behavior which exceeds typical behavior” [120, p. 1362] in efficiency, creativity, or productivity. Finally, while *flow* has much in common with peak experience and performance, it refers specifically to a state of *optimal experience*. Flow states are characterised by the perception of activities as highly challenging, yet manageable [i.e., challenge-skill balance; 33], involving high concentration and enjoyment.

Consumer research has likewise sought to capture and facilitate extra-ordinary experiences [57], initially conceptualised as emotionally intense, positive, and intrinsically enjoyable, with a “sense of newness of perception and process” [9, p. 41]. Duerden et al. have since derived a more granular taxonomy of extra-ordinary experiences [43, 131]. In their framework, *memorable* experiences “hold an individual’s attention and produce ... strong emotions” [43, p. 204], whereas *meaningful* experiences also involve the “discovery of significant and personally relevant insights” [43, p. 206]. Finally, transformational experiences are understood as intensely emotional and memorable experiences that prompt meaningful revelations and enduring change in personal beliefs, self-perception, and behaviour.

In the major tradition of games research, the study of games and play is bound up with extra-ordinary experience from the beginning [e.g., see 107]. An early study of game enjoyment took direction from flow theory, claiming that “satisfaction, enjoyment, fun, and other aspects of ... experience have been widely regarded as the essence of play” [56, p. 729]. A similarly essentialising account has obtained in more recent enjoyment research, whereby videogames are considered to “offer some of the most intense, rich and engaging experiences of all interactive products” [94, p. 927].

This apparently defining quality is taken for granted again, most notably, in GameFlow [144], whose turn to (player) experience was predicated on the limits of videogame research applying isolated concepts from media theory, such as genre and transportation. In taking optimal experience as its foundation, however, GameFlow itself arguably also comes to represent a narrow view of PX. A similar perspective prevails in more recent work, including research investigating peak-end effects (with respect to challenge-skill balance) in videogame play:

“Games provide an interesting platform for examining peak-end effects because the activities involved are designed to be highly engaging and immersive ... games may also generate stronger momentary experiences than other forms of daily interactive tasks, allowing more sensitive experimental examination of peak-end effects” [52, p. 5608].

Similar claims are made in self-determination theory (SDT) literature addressing game overuse [e.g., 132]. In particular, the *need density hypothesis* is predicated on the notion that “few activities ... have the capacity to provide need satisfaction with high degrees of [immediacy, consistency, or density]—let alone all of them—the way that video games do” [125, p. 102]. Indeed, videogame play is said to differ from “many other leisure activities, [as] there are no limits to the imagination and resources that game developers will dedicate to creating [psychologically satisfying] in-game experiences” [132, p. 523], which are apparently comparable to recreational drug use: “just as cocaine directly and immediately gives addicts that [dopamine] rush, so too [does] the immediacy and density of intrinsic need satisfaction in [massively multiplayer online games]” [125, p. 109]. SDT-based HCI games research does not appear to frequently engage with the need density hypothesis [149]; however, it remains likely that SDT’s characterisation of videogames as inherently facilitating extra-ordinary PX has been influential.

Arguing for the merits of studying both positive and negative emotional responses to play, Birk et al. were among the earliest within HCI to critique the focus on enjoyment, flow, and immersion in PX research [14]. Operating on similar terms, the nascent HCI games research on mixed affect [16], serious experience [58, 91], and reflection [77, 95] has aimed to extend PX research beyond fun.

However, much of this literature also works from the basis that games evoke extra-ordinary experiences. Bopp et al. argue that “emotionally moving game experiences ... sometimes even had a deep personal impact on players” [16, p. 3003], and “often ‘linger’ with players for a long time” [16, p. 3005], suggesting both strong emotion and memorability. Finally, emotionally challenging PX is also predicated on videogames’ capacity to elicit “intense negative emotions” [17, p. 8] that “offer more diverse and unique gaming experiences” [113, p. 10], purportedly supporting the extra-ordinary experience of reflection.

Many PX studies are not explicitly based in paradigms of extra-ordinary experience [23]; for example, works that employ self-determination theory [see 149, for a review]. Constructs such as need satisfaction or enjoyment do not themselves connote extra-ordinary PX – however, an implicit *methodological* bias manifests in quantitative work that regards higher scale ratings as inherently constituting a ‘better’ experience.

In a similar way, the HCI games literature does contain more measured claims regarding extra-ordinary PX. Recent work has questioned the focus on “relatively long, highly interactive and even intense [play] sessions” [34, p. 133] in PX research, pointing to the ways that *Neko Atsume* [54] supports habitual play marked by frequent disengagement. Interrogating cultural distinctions between ‘casual’ and ‘hardcore’ games, Kultima foregrounds the rigidity of what is considered desirable PX, observing that “we have already managed to build some pivotal premises for digital game design ... for example, the notions of challenge, immersion, flow and meaningful actions ... Why do games need to be highly challenging? Why do I need to devote my entire attention to the game and become immersed in its world? Why do I need to feel the flow of the game experience? ... What is really a good game?” [85]. Finally, while a study of player emotions posits that “a good game is likely to elicit a strong overall emotional response” [123, p. 346], the authors also

acknowledge that “games are not always played in order to feel strong emotions” [123, p. 346].

Extra-ordinary experiences have played a vital role within HCI games scholarship to date. Despite being somewhat rare experiences, the prominence of extra-ordinary PX remains largely unquestioned. Indeed, similar trends have been identified in consumer research, where Carù and Cova cautioned against the “ideological view [across disciplines of experiential research] that tends to consider every experience as extra-ordinary” [25, p. 268] – perspectives that recall the “search for intense pleasures and high arousal [rather than] the tepid mediocrity of everyday life” [25, p. 278] in Romantic ideals [55] whose relevance to the conditions of contemporary life is increasingly tenuous [134].

3 ORDINARY EXPERIENCE

Human life consists largely of ordinary experiences: going to work (or working from home), shopping for groceries, playing with a pet, and so on. When asked about recent life experiences, ordinary experiences are those described with a perfunctory gloss (e.g., “it’s ok, I guess”; “nothing much happened”; “she’s really getting into the scratching post”) – or omitted from the narrative entirely [3, 133]. Extra-ordinary experiences come to mind more readily – being promoted, winning the lottery, or the death of a pet are unlikely to occur frequently. (If these experiences *did* occur regularly, that in itself would be extra-ordinary.)

Somewhat paradoxically, academic accounts say little about the *experiential* qualities of ordinary experiences, reflecting a prevailing tendency to understate or eschew consideration of ordinary experiences in the wider literature. Ordinary experiences, when mentioned at all, are typically deployed in comparisons that favour the extra-ordinary. Abrahams conceptualises extra-ordinary experiences as “more intense, framed and stylized practices” [3, p. 50], whereas ordinary experiences correspond to everyday life and the routine. Similarly, Arnould and Price [9] describe extraordinary experience in terms of spontaneity, and the absence of rigid expectations; again, ordinary experience is linked to mere routine. Duerden et al. acknowledge the value of studying ordinary experiences, but only through recourse to the extra-ordinary – “so they [ordinary experiences] do not detract from desired extraordinary experiences” [43, p. 201] – characterising ordinary experiences as those that require conscious attention without producing strong emotions.

Some works are less biased, however, and investigate both ordinary and extra-ordinary experiences with equal seriousness. Bhattacharjee et al. conceptualised ordinary experiences as “common, frequent, and within the realm of everyday life ... independent of any inferiority or superiority” [13, p. 2], and over a series of studies observed their increasing benefit to happiness with age. More specifically, their work suggests that the benefits of ordinary experiences increase with age due to a declining need for self-definition through memorable (i.e., extra-ordinary) experiences. Similarly, Irvin argues for the aesthetic appeal of ordinary experiences – defined as simple, everyday experiences, lacking closure, and characterised by fragmented awareness – which “animate our day-to-day existence” [60, p. 40], and represent a source of considerable satisfaction. Schmitt goes further, suggesting that “mundane experiences of medium intensity may in fact be the precondition for happiness. As such,

they have an important role to play in enriching our ordinary, daily lives” [134, p. 251-252].

3.1 Ordinary Experience in HCI

A variety of HCI research has engaged with concepts related to ordinary experience. Some scholars aim to minimise the attentional burdens of interaction: Pohl and Murray-Smith describe a continuum of focused–casual interactions [119] that vary in terms of effort and attention; implicit [135] and peripheral interaction [10] research pertains to interfaces that support unaware (e.g., gaze-based) or unintentional technology engagement (e.g., with public displays); others yet investigate non-intrusive and non-disruptive “subtle” interaction [118] as a desirable quality of technology use. Notably, these accounts remain largely silent on the experience of engaging with such technologies.

In contrast, works on “unremarkable” [109, 148] or “mundane” interactions [e.g., 40] emphasise the routine character of engagement, examining typically commonplace technologies that are no longer novel, having been fully integrated into daily life – they have become ordinary. Crucially, this view conceptualises “ordinariness [as] something that we *do*; rather than simply being a stable feature of the world, it is actively managed and achieved in the course of interaction ... produced and recognised by the parties to an interaction ... [and] relative to particular communities and activities; *it is a feature of forms of competent language use for groups of language users*” [38, p. 24, emphasis added]. In short, ordinariness is collectively produced by literate beings in interaction [also see 133].

User Experience (UX) research has recently started investigating the notion of ordinary experience at work, where users often interact with automated or semi-automated processes. For Meneweger et al. [96], the (extra-)ordinary is best represented on a continuum, where ordinariness obtains in experience “that someone has no specific memory of, attributes no specific value to, *or* requires hardly any of someone’s attention” [96, p. 219; emphasis added]. Ordinary experiences may be recalled as a gloss, but their specific qualities are typically inaccessible. In contrast, extra-ordinary [or “unordinary”, 96] experiences are memorable, valued, or demand attention. From these authors’ perspective, the (extra-)ordinariness of experience is continually (re)determined in the present, and these temporal dynamics are of primary relevance, rather than categories of ordinary or extra-ordinary experience *as such*.

What is meant by “attributing no specific value” to an experience, however, is less clear. Unfortunately, the paper itself [96] is somewhat ambivalent as to the specific meaning of ‘value’. We may, however, speculate that unvalued experiences are particular to contexts where engagement is typically involuntary (e.g., workplaces), which suggests limited relevance to videogame play.

According to Clemmensen and colleagues, ordinary experiences “have no specific value, are hardly memorable, do not attract attention, *and* happen when users interact directly [or] indirectly with a system” [30, p. 6-7; emphasis added]. Nevertheless, they consider such experiences a key characteristic of UX at work, requiring further research. Findings from their two-week study of greenhouse workers’ practices indicate that ordinariness is produced only by literate (or expert) users in interaction, substantiating prior conceptual work [38]. Their study design, which employed an ad-hoc

| Element | Relevant Literature | Description |
|----------------------|---|--|
| Familiar | [3, 6, 22, 30, 38, 41, 63, 72, 79, 137, 151] | Games' salient features become familiar as literacy develops through play |
| Moderate emotion | [22, 43, 50, 112, 137, 141] | Diffuse emotional responses to the developing scene of play |
| Co-attentive | [7, 24, 35, 70, 96, 112, 127, 137, 138, 141, 147] | A capacity for awareness as balanced across the videogame and outside world |
| Abstractly memorable | [84, 96, 100, 147, 148] | A general or abstract recollection of the play situation, game plot, and other structural features may be retained |

Table 1: Elements of ordinary PX.

UX instrument and the AttrakDiff, is worth further notice for operationalising ordinary UX as “middle-of-the-scale” – a temporally stable pattern of moderately positive ratings (or neutral ratings, on the AttrakDiff’s semantic differential). However, none of scales employed by Clemmensen et al. immediately suggest themselves as a suitable measure of ordinary UX – indeed, whereas the authors interpret their qualitative data as further evidence for measuring ordinary experience as “middle-of-the-scale”, some statements [e.g., “Repulsive or pleasing? No. It is a work tool”; 30, p. 18] may instead suggest the limited relevance of AttrakDiff items to the system under study.

Speculating on the subsequent directions of ordinary experience research, Meneweger et al. [96] are optimistic regarding its fruitful adaptation to other HCI research contexts, including leisure. Acknowledging that each approach described in this section has seen success within their specific context, none seem individually capable of characterising ordinary experiences of videogame play. It is for this reason that we now turn to consider the yet-unexamined qualities of ordinary PX.

4 ORDINARY PX

Players derive pleasure from ordinary experiences of videogame play [112, 146] – yet accounting for these engagements proves difficult (e.g., “it’s more about progressing rather than enjoying the game [laughs] which sounds stupid but ...” [146, p. 73]). The vocabularies of videogames and player experience are so steeped in the extra-ordinary that we have no words to describe alternative ways that play can be desirable [also see 5].

Existing accounts of ordinary experience are not readily applicable to player experience: many approaches primarily concern utilitarian contexts [e.g., the workplace; 30, 96], or efficient task navigation [e.g., finding a parking lot near the dentist; 131] – circumstances that arguably bear little resemblance to common notions of play as a voluntary leisure activity [35, 160]. Consequently, these accounts mainly consider ordinary experience only at the site of its rupture into the extra-ordinary [e.g., getting lost on the way to the dentist; 131]. Beyond a common interest in everyday routines, approaches aiming to minimise user attention towards interaction [e.g., 10, 135] also seem misaligned with desirable experiences of play (a point we discuss in further detail below). Similarly, conceptualisations of ordinary experience in consumer research typically consider it only in terms of “common” and “frequent” experience [13, 97] to differentiate it from “uncommon” and “infrequent” extra-ordinary experiences. They say little about the experiential qualities of ordinariness.

In the following, we hence outline an account of ordinary experience as it pertains to player-computer interaction (see Table 1 for a summary). Qualities of ordinary PX were derived from these works on UX, HCI, and consumer research, as well as game studies.

We illustrate these qualities by means of several game examples, based on our personal experiences and those described in games scholarship. Before we articulate the qualities of ordinary PX, however, some preliminary points should be raised. First, ordinary PX is *local to the specific personal context of videogame play*. For example, the extra-ordinary experience of completing a boss fight with limited health remaining is incommensurable with that of winning the lottery; similarly, *Katamari Forever* [47] is likely to produce more ordinary PX for those who have played prior games in the series. Hence, the game examples and personal experiences detailed below may not reflect other players’ views of ordinary PX. Second, we emphasise that ordinary PX does not merely reflect boredom. While the former might be seen as boring to others, the continued existence of game elements likely to evoke ordinary PX (e.g., grinding levels in a role-playing game) demonstrates their desirability. Indeed, boredom can be extra-ordinary, and such experiences are more clearly unpleasant; for example, when a game’s final boss is much easier than expected, or when sitting through spectacular but ultimately lengthy animations [e.g., as in *Final Fantasy VII*; see 27]. Third, our conceptualisation situates the importance of ordinary experiences in their frequency and regularity, which help organise and structure life events into a coherent whole. To elaborate: whereas some authors cast extra-ordinary experiences as “highly emotional, meaningful, unique, and having the power to transform[, representing] an escape from common everyday life” [43, p. 201], we argue that the opposite is also true: the ordinary is itself an escape; a relief from the intense extra-ordinary experiences that wear out, and wear *on*, the self [12]. If extra-ordinary experiences are essential as moments of self-definition, meaning, and intense emotion, ordinary experiences represent the circumstances in which life can continue *at all*.

4.1 Familiar

The *familiarity* of ordinary PX refers to what “goes without saying”, the tacit knowledge, muscle memory, or general competences (i.e., *literacies*) developed through previous experience in similar circumstances [3, 30, 38, 96]. Extra-ordinary PX is characterised by *novelty*, which may result from steadily increasing challenge [i.e., as in flow; 33], plot twists [17], and so on.

Familiarity with videogame play develops primarily through direct interaction – with “hands wrapped around input devices, eyes on screens, and ears directed at speakers” [72, p. 16], players develop embodied literacies through more precise motor control, and greater recognition of visual, aural, and haptic game elements [41, 63, 72, 151]. Familiarity also pertains to the ideas, events, and tropes that games convey through representation [6, 64, 79, 151]; indeed, a game’s intended audience may primarily consist of players who can interpret these representational qualities in ways that correspond to particular cultural literacies [80, 150]. Put another way: through

habit, players incorporate aspects of the play situation into bodily knowledge that can be accessed more readily [i.e., habituation; 75, 122], and these literacies (e.g., WASD controls) can *generalise* to perceptibly similar circumstances.

Some game designs evoke familiarity through the convergence of interaction and representation: in depicting broadly accurate train-adjacent locales, and providing a custom interface resembling actual train controls, the *Densha de Go!* series [e.g., 145] also signifies an intent to represent the actually regulated behaviours imposed on train drivers in the outside world. Other games become familiar through a *serial aesthetic* of design that “folds difference into the repetition [of game elements] and so creates a sense of iterative progression” [143], contributing both structure and variation to play. *Diablo III: Reaper of Souls* [15], for example, deploys a serial aesthetic via recurring enemy abilities, item modifiers, and area tilemaps, which are collectively rearticulated in greater rifts and regular seasonal resets. To be familiar with *Reaper of Souls* is to recognise and respond to these salient features [64] during play – to identify the posthumous danger posed by enemies with the Vortex and Fire Enchanted attributes, feel the changes in crusader play produced by seasonal item variations, or know the procedurally-generated patterns that determine where area exits *could* be located.

Players and game-external circumstances can also influence familiarity by deviating from normative behaviours [22] – holding a controller upside-down, wearing a blindfold, or playing a local multiplayer game in a public library will likely increase the novelty of the play situation. Familiarity, and hence ordinary PX, is *multiply determined* in direct interaction, representation, and the introduction of atypical factors into the play situation.

4.2 Moderate Emotion

Moderate emotion reflects more diffuse or gentle emotional responses to play. In other words, the emotional qualities of ordinary PX are ‘moderate’ only in that they are not excessively strong – neither intensely positive or negative, nor highly arousing or relaxing [43, 121]. Note that this is not an *absence* of experiential qualities [cf. 30] – while these emotions are not strongly felt, their absence would instead suggest anhedonia. Extra-ordinary PX, in contrast, is often marked by a pronounced sense of enjoyment [94, 96], or intense emotional responses [e.g., 16].

Much of *Xenoblade Chronicles 2* [98], for example, provokes moderate emotion: navigating its environments, gathering resources, completing quests, and watching cutscenes is generally pleasant, and somewhat stimulating, but never intense. Unusual monster names such as ‘Implacable Dylan’ might prompt a smile, and melodrama in the game’s narrative is even occasionally affecting – *Xenoblade* is by no means dull, or lacking in personality – however, the moderate emotions elicited by the game contribute to its appeal.

Considering technology use in general, Meneweger et al. argue that experiential qualities such as emotion may become less prominent over time, in that “users may pay initial attention to trust as a component of the experience, whereas after several trustful interactions, it might become less prominent in the users’ experience” [96, p. 226]. This would reflect emotional habituation – and if similar interactions and experiences were found in other games, they might *generalise* to those games as well. Indeed, habituation and generalisation effects have been observed to attenuate emotional arousal

over repeated play sessions with first-person shooter games [50] – rather than seeking more gratuitous stimuli in response, however, long-time players recognise that play “can become a routine activity among other everyday routine activities”, and begin to “find pleasure in more or less monotonous gaming experiences” [112, p. 232]. Game developers’ conceptualisation of ‘cozy’ experiences, which obtain in “low-stress environment[s] ... where players have a lower state of arousal” [137, p. 1], also speaks to the desirability of moderate emotion in PX.

4.3 Co-Attentive

The *co-attentiveness* of ordinary PX refers to a balance of player attention across events in the videogame and the outside world [30, 70, 96]. In this sense, the objects of player attention are unremarkable; “perceptually available yet *practically* invisible in use” [148, p. 402, emphasis added]. However, contrary to notions of peripheral [10], intersecting [109], or implicit interaction [68, 135], co-attentiveness is “not equivalent to not noticing” [148, p. 402] – rather, it emphasises attention that is shared across the game and the outside world. For example, the second author often plays roguelike games on their (muted) laptop or handheld console while friends or family members watch and discuss a movie together nearby. Attending and contributing to these conversations remains possible without interrupting play. Extra-ordinary PX, conversely, involves *distraction* from the outside world: the player’s full attention is consumed by the videogame, limiting awareness of external events (e.g., a burning smell from the oven).

Co-attentive play may be social [7, 141, 147], involve separate media engagements [24, 112, 127], or other events [e.g., waiting for the correct bus stop; 35, 70]. Indeed, these examples illustrate that co-attentive play can be seen as a response to a wider trend towards technology designs and media formations that permeate daily life [106]: similar interaction styles are facilitated by other screen media [e.g., TV, livestreaming; 5, 115, 161] and emerging technologies [e.g., smart devices; 111]. In their work on screen ecologies, Carter et al. trace player accounts of *EVE Online* [26] that produce ‘boring’ styles of play, whose low attentional requirements produce “low registers of engagement” [24, p. 41], similar to the “everyday background activity” [138, p. 503] of idle game play. The co-attentiveness of ordinary PX does not, however, only describe periodic engagement – online games such as *Guild Wars 2* [8], for example, have been observed to facilitate low-intensity experiences of engagement that support casual sociality [137].

Some game designs intentionally make co-attentive play central to the experience. *The Longing* [142], for instance, incorporates idle game mechanics [see also 138] to deliberate effect, as the player-character’s actions are subject to protracted real-time delays that stretch over minutes, and even hours. In the meantime, players may attend to other activities – house chores, other games, or work – while waiting for the ‘pinging’ sound that indicates task completion. Alternatively, the player-character can be instructed to wander randomly through the labyrinthine game environment, potentially discovering an unexplored area. *The Longing* also invites players to simply watch the player-character as they traverse the game world, or hack away at crystals – acts of mindful contemplation that may be experienced as quite extra-ordinary (as the second author of this work observed).

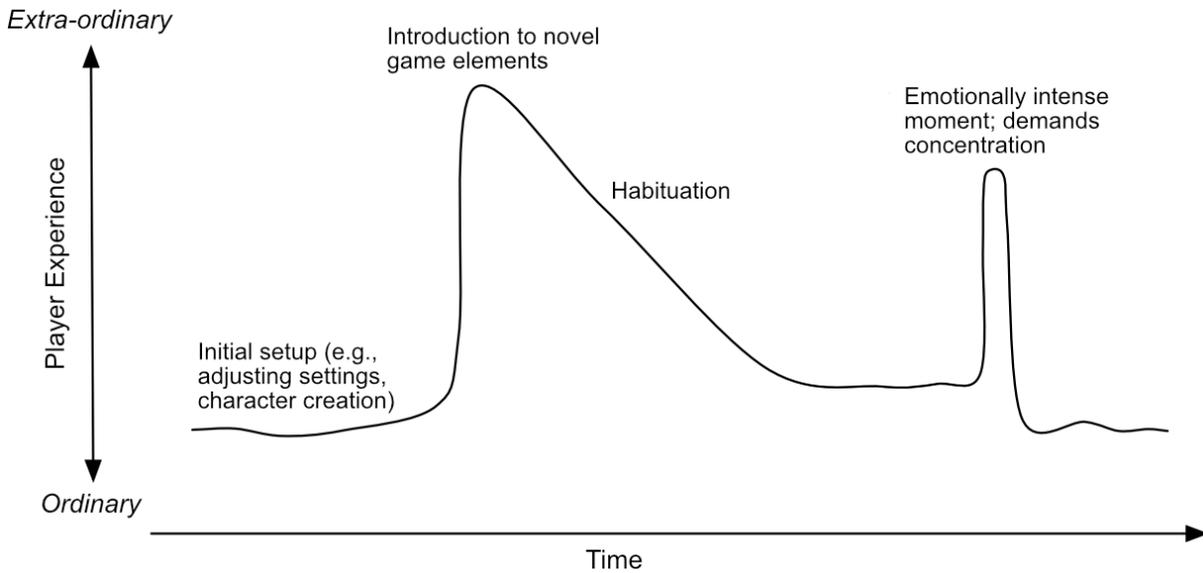


Figure 1: The temporal dynamics of (extra-)ordinary PX, represented as a continuum. Adapted from Meneweger et al. [96].

In emphasising movement, navigation, and environmental appreciation, walking simulators [or ‘walkers’; 103] often invite co-attentive play. In *Proteus* [76], for example, interactions are limited to movement and perception, and while the gameworld is alive and compelling, its navigation makes few demands on players’ cognitive resources. Two exceptions that prove the rule are *WORLD4* [101], which demands focused attention to four near-identical viewports during navigation [102], and *Slave of God* [88], whose pulsating nightclub environment demands attention by overwhelming the senses [73]. The aesthetics of aural and visual excess that both games deploy marks them as unusual within their genre, and emphasises the influence of focused attention for extra-ordinary PX.

4.4 Abstractly Memorable

Ordinary PX is *abstractly memorable* in that recollections are recognisably incomplete. That is, rather than remembering a specific experience *episode*, the abstract memory of ordinary PX is a gloss; a “vague gestalt impression” [100] of activity and emotion across the physical and virtual locales of play. These memories are available for conscious recollection [cf. implicit memory; 49], but details are perceptibly absent. Extra-ordinary PX produces more vivid memories of the play situation; upon their recollection, players may find themselves reliving (to a lesser degree) the emotional and physical responses originally experienced.

Final Fantasy VII’s [140] tower defence mini-game at Fort Condor arguably lends itself to abstract memory; its relevance to the game’s plot, themes, and ensemble cast is somewhat tenuous, premised only on opposing the forces of global capital in their attempts to steal a giant egg. When forming a defence, players can select from a reasonably varied pool of unit types, but combatants on both sides move and fight at an almost comically slow pace. While clear, episodic memories of Fort Condor are possible, their formation is likely more dependent on other aspects of the play situation – explaining the scene to a spectating family member, for example, or deploying only a single unit type. Separately, in eschewing

conventional modes of temporality and narrative form, and embracing the surreal, *Lake of Roaches* [99] comes to resemble a series of impressions – fishing trip, hotel, the lake, a Roach King – whose recollection seems *necessarily* incomplete. Memories of playing *Lake of Roaches* are more likely to reflect players’ overall experience with the game; a summary judgement lacking further detail.

The prevalence of peak experience studies and retrospective self-report data in HCI games literature represent obstacles to finding evidence of PX that is unmemorable, or memorable only in the abstract. Self-report data are of some use, however, in demonstrating a relationship between specific memories and extra-ordinary PX. A study of memorable *Pokémon GO* experiences [84] indicates, through its coding scheme, that memorable PX emerged in part from the game’s novelty – in being a ‘newbie’, doing things in the game for the ‘first time’, the ‘hype’ around the game in the ‘early days’ of its release, and (in what the authors term ‘hysteria’) the sometimes extra-ordinary lengths to which players went to catch rare pokémon. Moreover, memorable PX was also seen to provoke a variety of strong emotional responses, including thrill, frustration, and embarrassment [84]. Ethnographic research provides more direct evidence that ordinary PX is characterised in part by an absence of specific memories. In one study [147], participants who watched a previously recorded play session noted their failure to remember the event in detail. For these participants, the experience of ‘not remembering’ was foregrounded in “a seeming disjuncture between their [participants’] memories of gaming, and the recordings” [147, p. 137], whereby participants reported surprise and discomfort at their distraction from play or the outside world, their apparent passivity, and few visible signs of enjoyment.

4.5 The (Extra-)Ordinary PX Continuum

Ordinary and extra-ordinary PX reflect *complementary* approaches within HCI games research. Their characterisation as opposite ends of a continuum, as suggested by Meneweger et al. [96], is productive in illustrating how they relate (see Figure 1). Movement between

the poles of ordinary and extra-ordinary PX occurs in interaction – as rapidly or slowly as the player’s own response to the play situation over time. PX can quickly become more extra-ordinary, for example, if a player is surprised by an unfamiliar enemy whose defeat demands their full attention. Using the same example, a similarly abrupt shift towards ordinary PX may occur if the player immediately returns to a more peaceful locale afterwards (e.g., to recover health). Slower movements towards the ordinary may reflect habituation to increasingly familiar subject matter [96]; a slow progression into extra-ordinary PX may emerge from the dawning realisation that a well-practiced boss fight might finally be won. Players with more substantially relevant literacies may also intentionally work to make their experiences more extra-ordinary; for example, by playing a horror game with friends in the dark [see 112], or finding new ways to interact with other players [22].

Relations between ordinary PX elements – familiarity, moderate affect, abstract memory, and co-attentiveness – are well-evidenced in cognitive psychology: habituation, the process through which play becomes familiar, catalyses the capacities for co-attentive and emotionally moderate experiences [122]. As players become more literate in a particular game – or with elements that obtain across many game designs [e.g., 78, 110] – play becomes increasingly unlikely to elicit intense emotions [22, 84, 112], or distract players from other everyday activities such as cooking pasta, or watching television [24, 63, 112].

A substantial body of research has found that experiences of strong emotion are more often remembered in detail [e.g., see 69]. Crucially, focused attention towards the salient causes of intense emotion contributes to their memorisation and later retrieval [69], and preliminary work has found support for these relationships in the videogame context [65], albeit only for short-term recall.

Each dimension is to some degree necessary and complementary in producing ordinary PX. To summarise: ordinary PX originates in familiarity towards the videogame, which players enact via literacies. Familiarity attenuates both the cognitive demand of play (facilitating co-attentiveness), and emotional responses to stimuli that are no longer novel. In the absence of strong emotion and focused attention towards play, memory blurs; recollections of the scene are recognisably incomplete.

5 DISCUSSION

Beyond its status as a domain of games research in its own right, understanding player experience is important for a range of HCI games scholarship, including applied games, gamified systems, design, and wellbeing. Almost the entirety of research to date has investigated extra-ordinary experiences; treating games as “dramatic machines” [156] uniquely suited to provide optimal or intensely emotional experiences. Although some scholars have indicated that more ordinary experiences with videogames can be desirable [e.g., 138], ordinary PX is yet to receive serious attention in HCI games research. The present work contributes to PX theory development by articulating a conceptualisation of ordinary PX that accounts for the desirable aspects of day-to-day engagement with videogames. While we draw from works on ordinary UX [and its distinction from extra-ordinary experience; 30, 96], our conceptualisation extends these rather vague notions in specifying the familiar, emotionally

moderate, co-attentive, and abstractly memorable nature of ordinary PX. In approaching ordinary and extra-ordinary PX as poles of a *continuum* between which PX varies over time, the present work contributes an extended perspective on player experience that complements existing knowledge of extra-ordinary PX.

In the following, we discuss our conceptualisation of ordinary PX with respect to its implications for empirical research, understanding what constitutes player experience, and relations between games and wellbeing.

5.1 Implications for PX

“The first issue prohibiting good evaluation of entertainment technologies is the inability to define what makes a system successful” [90].

As we have shown, PX research to date has focused on extra-ordinary experiences, implying that good PX – or PX worth investigating – corresponds to these experiences alone. Understanding how extra-ordinary PX became prominent, and why HCI games research has pursued broadly-applicable frameworks of good or “most important” [104, p. 4] PX elements, helps contextualise the conceptual importance of ordinary PX.

Despite popular appeal, videogames have historically struggled to establish cultural legitimacy [31, 80]. Games research, by association, has undergone a similar struggle [2]: in academia, for example, the CHI Games and Play subcommittee has only existed since 2016, and “might be a bit of an outsider” [117, p. 8]. HCI games research, and PX research in particular, has primarily claimed *legitimacy* as a distinct area of study through associations with UX [e.g., 104] and psychology [149]. Drawing from these areas has imparted PX research with theoretical, conceptual, and methodological substance; foundations that have undoubtedly contributed to the recognition and development of games and play research at CHI. However, these fundamental claims to relevance increasingly resemble a ‘legitimacy trap’ [39] that narrows the field of possibilities for further growth [also see 11]. In presenting ordinary PX, we have in part attempted to illustrate the substantive limits of current PX research.

Alongside work that develops existing PX research concepts in greater detail [e.g., 32, 35, 81, 116], more *varied* ways of theorising player experience [e.g., 139] are increasingly necessary to understand changes in game design. MOBA games, for example, have thwarted existing PX evaluation methods because they “...lack most of the commonly occurring positive components of PX” [66, p. 2270]. Research into other design trends over the past decade – mobile games [84, 93], idle games [34, 138], Twine games [46, 53], and walking simulators [102, 103] – also indicates that a greater breadth of PX concepts is needed. As our examples of familiar, emotionally moderate, co-attentive, and abstractly memorable experiences have shown, ordinary PX can help explain the appeal of many of these games in ways that existing PX concepts may not.

In suggesting that ordinary PX can help explain these games’ appeal, we also highlight the variety of experiences that videogames are increasingly designed to support. We consequently hope to displace notions that *general* frameworks of ‘optimal’ or ‘good’ PX can be defined at all [cf. 86]. It is clear that “games and game development keep changing, [creating] new and specific situations” [42, p. 518] that games scholarship must address – but these changes in game-making practice fundamentally resist attempts to “find a

good combination of measures that can identify a valuable player experience holistically, efficiently, and cheaply” [42, p. 519]. Returning to the (reinterpreted) quote that opened this section [90], the issue at hand is the inability to define success for *all* systems.

Another implication pertains to areas of research aiming to “optimise” PX with respect to flow or novelty [e.g., 129, 130]; for example, to predict churn in mobile games [129]. These approaches overlook the often ordinary experiences that accompany mobile play [particularly with live service games; 4], overestimating the predictive utility of positive extra-ordinary PX in models of player behaviour. Developing models that account for the varied patterns of engagement with live service games may be particularly important, as their designs tend to reward routine engagement across a number of time periods. For example, *Destiny 2* [21] incorporates daily, weekly, and ‘seasonal’ objectives that justify repeated play. For *Destiny 2* and its contemporaries, ordinary PX is embedded in the designed routines intended to structure engagement [148].

5.1.1 Implications for Extra-Ordinary PX. Our conceptualisation also suggests new ways of thinking about extra-ordinary PX – in particular, as a means to describe *trajectories* of PX over time [96]. During crucial early periods of engagement (i.e., onboarding), for example, the (extra-)ordinary PX continuum could help demonstrate changes in the intended experience, alongside other temporally-sensitive approaches [114].

Naturally, there are many in-game events that players would prefer to experience as being extra-ordinary; scenes that designers *intend* to be remarkable rather than mundane. For example, if pentakills (i.e., killing all five members of the opposing team in succession) became a more ordinary experience in *League of Legends* [126] tournaments, it might suggest serious issues with game balance, and result in a less desirable spectator experience. Games that exploit a combination of ordinary and extra-ordinary PX demonstrate their complementary benefits: the plot twists of *Bioshock* [1] and *Braid* [108], for example, depend on familiar experiences; the extra-ordinary PX these games evoked could only occur because following directions and rescuing princesses were considered ordinary.

5.2 Ordinary PX and Wellbeing

Ordinary PX provides another account regarding the ways that games can improve wellbeing. Wellbeing benefits associated with videogame play have been repeatedly claimed in HCI games literature [e.g., 59, 151, 153]. Common explanations for this relationship come from psychology (e.g., self-determination theory, mood management theory), including extra-ordinary experience literature [e.g., flow; 105, 120]. The ways that HCI games research approaches wellbeing, then, is bound up in many of the same ideas regarding peak experience that we have sought to complicate here. As before, we do not suggest that these perspectives are *wrong* – but in ordinary PX we find an explanation independent of videogames’ distraction potential [59] or need-satisfying qualities [151], and an alternative account of play’s social benefits [153]. In presenting an alternative way of thinking about games and wellbeing, we identify another limit of established approaches to PX research.

Videogames’ capacity to distract players from issues in the outside world [i.e., as part of emotion-based coping; 59] has featured

heavily in research linking games and wellbeing [e.g., 67, 152]. Our conceptualisation of ordinary PX, however, has drawn attention to work demonstrating that more literate players often engage co-attentively with games typically theorised as immersive or flow-inducing [e.g., 24, 112, 137]. Collectively, these instances challenge prevalent assumptions about how play can benefit player wellbeing – for example, the capacity to talk through the events of a bad day while playing competitive multiplayer games does not seem to follow from experiencing flow or immersion [154], but rather co-attentiveness. Considering co-attentiveness in this context is not only to observe its prevalence outside mobile and casual game play [24, 74]; rather, it is also to see *other ways* to derive wellbeing benefits from engagement with more conventional videogames.

During play, elements of ordinary PX provide a respite from unpleasant feelings experienced in daily life [124, 155]. Games suited to coping behaviours are often familiar to their players [137], and support *emotional moderation* [or regulation; 51] – the attenuation of negative emotions through their transferral into ‘bodily knowledge’ that is felt less keenly. Over time, ordinary experiences of play structure and reproduce life; they represent habitual behaviour through which a degree of stability can be attained [122]. In this sense, ordinary PX supports wellbeing through the maintenance of routine, contributing to a pleasant sense of self-abeyance [12]: a temporary suspension of, and relief from, being in relation with the world. From this perspective, the *regularity* of wellbeing is more fundamental than its intensity [36]. This shift corresponds to a change in measurement. For example, using self-report scales anchored from ‘not at all’ to ‘extremely’ implies that wellbeing obtains in uncommon, intensely positive experiences. Future scholarship on games and wellbeing may alternatively benefit from measures anchored in terms of frequency [e.g., 37].

It is no revelation that older adults regularly play videogames, and for a variety of reasons [19, 20, 48]. Consumer research has indicated that relations between ordinary experience and wellbeing increase with age [13] due to changes in self-definition practices. More specifically, “as people get older, their focus may shift from discovering who they are through ... unique endeavours like ziplining through the rainforest to living who they are by spending time in their preferred ways” [13, p. 10]. However, it remains unclear whether similar relationships manifest with respect to videogame play: Gamers (particularly men) may self-identify as such at younger ages [80, 82, 136], but this identity is arguably substantiated at least partly through the habitual, unremarkable, and ordinary play experiences that coalesce into the literacies recognised as legitimate within the culture [71, 150]. Investigating the ways that age and identity formation strategies intersect with ordinary PX – and to what extent these relationships differ from those identified in consumer research – would therefore represent an interesting vector for future research.

Another avenue for investigation relates to potential design implications for games and game-adjacent artefacts that promote wellbeing [e.g., 29, 153], as these domains are likely to benefit from more varied approaches to design [28]. Specifically, designing for wellbeing through ordinary PX could emphasise the comfort of repetition and familiarity, and emotionally gentle situations [e.g., as in ‘cozy’ games; 137].

5.3 Limitations and Open Questions

The present work has adapted work from a variety of research domains to propose a detailed conceptualisation of ordinary player experience. However, we emphasise that this paper does not represent the final word on the topic; indeed, we invite scholarship that develops or challenges our approach to ordinary PX. Crucially, beyond the supporting literature presented, our conceptualisation awaits direct empirical validation in the context of videogame play.

Our synthesis of varied theoretical views does complicate the *operationalisation* of familiarity, moderate emotion, co-attentiveness, and abstract memory for use in HCI games research. Indeed, questions of measurement have emerged in prior ordinary experience research: Meneweger et al., for example, highlight that UX research provides “no explicit reflections on how to access [ordinary] experiences” [96, p. 225], and suggest ethnographic and practice-led [87] methods. These approaches are demonstrably effective [e.g., 3, 148]. UX research has suggested quantitative approaches to operationalising ordinary experience as mid-scale ratings [30], yet this risks conflating ordinary with mediocre experience. As such, substantial challenges in measuring the properties of ordinary PX remain. Considering familiarity in terms of direct interaction, representational qualities, and contextual factors reflects a broader issue of defining and measuring expertise [62]. Moderate emotion is more straightforward, given existing self-report measures, but skewed distributions present their own challenges in analysis [159]. Unfortunately, the novelty of biometric measurement may itself facilitate more extra-ordinary PX [but see 50]. Self-report or behavioural measures of task demand [e.g., see 18] may implicitly assess co-attentiveness – alternatively, observational methods are more complex and time-consuming to implement, but may provide a more direct assessment [e.g., 45]. Finally, while the nebulous nature of abstract memory appears to stymie current approaches to measurement, distinguishing between specific memories of play and the broader play session (e.g., in survey prompts) may prove effective.

Although the present work has focused entirely on videogames, boardgame research [128] indicates that similar forms of ordinary PX may obtain in tabletop contexts. More specifically, the ways that players collaboratively distribute and maintain knowledge of the game state, while retaining sociality when circumstances permit [128] speaks to co-attentiveness, particularly among more familiar players. The potential nuances in ordinary boardgame PX, relative to our own conceptualisation, would represent a valuable site of further inquiry.

Gameful and applied games scholarship may also benefit from considering ordinary PX, in light of prior research in non-leisure settings [30, 96]. In these contexts, the utility of ordinary PX seems particularly contingent on design intent: applied game designs, for example, may intend to develop tacit knowledge (i.e., becoming familiar, and ordinary) or confront players with more discordant (i.e., extra-ordinary) scenarios. However, ordinary PX seems more consistently relevant to gamified systems, as these designs often aim to support the initiation and maintenance of *routine* behaviours [28]. Gamifying workplace environments presents practical and ethical issues, however, in that the potential for *voluntary* engagement is inherently foreclosed by their “hierarchical and unbalanced power

relations” [157, p. 174], which would appear to negate any benefits of gameful intervention.

Finally, while our conceptualisation was specifically developed with ordinary *player* experience in mind, it may also facilitate more granular investigations of ordinary user experience with technology. This application is particularly salient, having drawn from the “abstract experiencing” of ordinary interaction described by Meneweger et al. [96] when constructing the co-attentive and abstractly memorable elements of ordinary PX. Whereas prior ordinary UX research has focused on the workplace [30, 96], our conceptualisation may lend itself to investigating ordinary experiences of leisurely technology use (e.g., habitual smartphone interactions [89, 111]; watching and producing video content online [115, 161]; devices intended to afford “subtle” interaction [118]). Having articulated elements of ordinary PX, our conceptualisation represents a response to calls for further engagement with the “different nuances” [30, 96, p. 7; p. 227] of ordinary user experience.

6 CONCLUSION

HCI games research has historically treated videogames as “dramatic machines” [156] uniquely suited to support extra-ordinary experiences of flow, pronounced enjoyment, immersion, or intense emotion. While memorable, such experiences are rare and do not reflect more prevalent, ordinary experiences of play. In this paper, we have argued for the importance of such experiences: synthesising works in HCI, consumer research, and game studies, the present work has presented a conceptualisation of ordinary PX, as distinct from extra-ordinary experience. Ordinary PX is characterised by familiar, emotionally moderate, co-attentive, and abstractly memorable experiences with videogames. We have, moreover, described ordinary and extra-ordinary PX as poles of a *continuum* on which PX varies over time. As such, the present work contributes an extension to player experience theory that both challenges and complements existing work on extra-ordinary PX in HCI games research.

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