

Picturing the Autobiographical Imagination: Emotion, Memory and Metacognition in *Inside Out*

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Abstract:

Inside Out (Pete Docter & Ronnie Del Carmen, 2015) develops novel cinematic means for representing memory, emotion and imagination, their interior relationships and their social expression. Its unique animated language both playfully represents pre-teenage metacognition, and is itself a manner of metacognitive interrogation. *Inside Out* motivates this language to ask two questions: an explicit question regarding the social function of sadness, and a more implicit question regarding how one can identify agency, and thereby a sense of developing selfhood, between one's memories, emotions, facets of personality, and future-thinking imagination. Both the complexity of the language *Inside Out* develops to ask these questions, and the complicated answers the film provides, ultimately serve as a manner of recognition of the effortfulness of finding one's place in the world. This article talks sequentially through the complex representative systems *Inside Out* advances in order to pay homage to the ways in which metacognitive cinema – as well as discussions and hermeneutic readings around that cinema – can make viewers feel recognised for invisible, internal labour that is existentially difficult to share due to its very interiority; an interiority that is reconstructed in imaginative processes such as autobiographical reminiscence, and filmic animation.

Keywords: Cinema; Emotion; Youth; Pixar; autobiographical memory; metacognition; hermeneutics.

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When cinema visualises memory, it introduces a key problem in the effect its depictions can have on public understanding of the reliability of recollection. Science fiction films, for example, often position memories as discrete and bounded audio-visual instances that can be isolated and extracted from the brain, from *Men in Black* (Barry Sonnenfeld, 1997) to *Eternal Sunshine of the Spotless Mind* (Michel Gondry, 2004), or in some cases implanted, as in *Total Recall* (Paul Verhoeven, 1990) or *Open Your Eyes* (*Abre Los Ojos*, Alejandro Amenábar, 1997). These narrative tropes may be explicitly presented as fantasies, but they are still impactful, as many tend to think of memory in isolation to the most salient properties that make it so dynamic: the way memory changes depending on the emotional state of the reminiscer (Nordgren et al., 2006), or the ways in which memories are socially constructed in concert with others rather than sitting dormant, waiting in the mind to be “activated” (Sutton et al., 2010).

Such problematics have obvious implications for jurisprudence: it would not matter so much for us to have an inaccurate notion of memory if we were not in positions where we judged and held people accountable for their ability to objectively retrieve stable details from the past. Even outside of the courtroom, we make these judgments based on others’ recollections every day. So, the representation of memory in popular media does matter, and all of these concerns seem well founded. Yet at the same time, on encountering *Inside Out*’s (Pete Docter & Ronnie Del Carmen, 2015) imaginatively animated depictions of memory and emotion, it might seem overly credulous to receive those depictions as fact more than fantasy. One might ask: is the film really suggesting that memories are small colourful spheres connected to larger, islandic nodes of personality such as “Family Island,” rolling around inside our heads connected through systems of tubes and cogs? The film does not seriously ask its audience to accommodate this proposition any more than they are asked to believe that their heads contain five characters representing Paul Ekman’s basic emotions – sans surprise, which introduces its own representational challenges given that surprise is so entrenched in the narrative experience. *Inside Out*’s much-cited variant “homuncular fallacy” (Maxwell, 2016; Johnson, 2020; Peacocke & Kernion, 2015) is, in fact, just one of the representational tools that the film deploys to make a number of propositions about youth and development. It is not a credible proposition in itself that we have people with their own brains inside our brains.

Claire Katz (2017, p. 69) has noted that the many discussions inspired by the film on its release “focussed on the science of emotions rather than the existential moment of what it means to be human, and what it means

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to experience and express – or not express – these feelings”. For Katz, the key question is not how one might scientifically verify aspects of emotional life but how we might existentially ascribe meaning to that emotional life – and this is what films, stories and art can do, as can longform humanistic explorations of these things, such as hermeneutics. In this sense, articles on the scientific credibility of what is ultimately a fantasy picture (see Keltner & Ekman, 2015; Peacocke & Kernion, 2015; Talarico, 2015) should be balanced against those making claims on behalf of its social uses in providing an intergenerational language through which difficult life changes might be broached (Tenzek & Nickels, 2019; Benarous & Munch, 2016), its pedagogic (Kralicek et al., 2018) and therapeutic uses (Cabaniss, 2015), and uses in further remedial practice (Bryant, 2016). But the film does more than this, too: it shows us how the development of such a self-reflexive language in cinema, rather than somehow *replicating* the complexity of an impossible interior executive and motivational agency, can simply make effortful introspection feel shared. Recognition of emotions is a step removed from merely feeling them: as James O. Young (2001, pp. 23–64) points out, the arts are an “illustrative representation,” so that in talking about sadness, for instance, the artist may offer an experience *akin* to the sadness represented in order to comment upon it. That commentary may, of course, offer insight on our emotions and how they work, and it can offer a gratifying sense that others know and understand an experience that feels so personal to the viewer, such that we are in a sense “in it together.” But moreover, art can recognise just how *difficult* all of this is, how living through complex emotions can feel like hard work. In this sense, I use recognition to refer to a more active bond that occurs across attempts at empathy – hearing and receiving another’s empathic efforts, and reciprocally feeling them in turn.

Given these philosophic musings the film is clearly capable of provoking, one might then consider how utterly complex the symbols of *Inside Out* are for a family picture. To make sense of the film, audiences must agree to some peculiar lines of interrogation, asking, for instance: “if Anger performs action *x*, and Disgust has reaction *y*, causing Fear to do *z* to Joy, what does this mean the film is trying to tell me about emotions?” *Inside Out* produces a satisfying kind of metacognition, and in fact, I would make the case that it is impossible to watch and understand the film without engaging at this metacognitive level. In this article, the intention is not merely to document *Inside Out*’s representations of cognition; instead, I argue for the work those representations do in prompting further effortful metacognition in the viewer. I reveal how those metacognitive reflections shared across cinema can make the effort

of youth development in turn feel shared and recognised, and demonstrate how receptive hermeneutics can extend that generous recognition in kind.

Ultimately, I find that the elaborative metacognition *Inside Out* requests of all its audiences, old and young, rests on a continual interruption of attempts to locate a singular site of agency: the notion that it is the emotions that drive us, or our memories, the social expression of these things or their self-identifying stabilisation in features of personality, and so on. Benarous and Munch (2016, p. 522) write “the notion that Riley’s emotions are the essential causal agents of her changing behaviours is in line with prior works on the motivational functions of emotions,” and their referencing of emotional-causal primacy (Dirven 1997) recalls the “flow-of-emotion scenario” (Radden, 1998, pp. 273–275), an essentialising presumption destabilised by work in the anthropology of emotions (c.f. Heider, 1991). Yet through much of *Inside Out*, the emotions are seen to be struggling with their lack of autonomy as other cognitions, respondent to both internal developments and events in the world, disrupt their attributed motivations. In fact, despite the contentiously materialist notion of biologically fixed “basic emotions,” it is significant too that the film could equally be used in support of theories of constructed emotion (Barrett, 2017): the emotions are seen to be mutable in tandem with social experience and expression, and are not situated at the beginning of a system of neural response but wedged in a place of categorising interpretation, respondent to other processes in the brain that are themselves respondent to circumstances invisibly beyond an executive control. Agency and motivation lie somewhere between emotions, past experiences (memory), future projections (imagination), and the circumstance Riley finds herself in (developmentally). As these are all elements in an interactive system, the key to understanding why we feel, think and behave the way we do – and crucially, how we assign meaning to features of the self, like emotions, by designating them discernible agency – is elusive, and the film’s existential contribution is that it effectively asks us to keep searching, accommodating increasingly complicated chains of distributed internal and external causality. The discovery of mixed emotion that concludes the film suggests that we gather complexity as we gather experiences and their attendant losses, and agency is increasingly divided in more complex interactions between inner motivations and the world those motivations respond to.

As young people appear to experience more anxieties about the future and consequent mental health complications than ever before (Hall et al., 2019), insights into a developing “directive function” of autobiography (Bluck et al., 2005, p. 93) – that is, updating the emotional meaning one

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attaches to past experiences in order to imagine future selves and project future actions – is no trivial matter. It is important not only to question the difficulties all young people go through in determining their place in the world, using shifts in one's place within a family system as a springboard, but to develop a language that recognises the hard work of this inner turmoil, that makes that turmoil feel shared through narrative recognition, and thereby manageable. Brian Sutton-Smith (1997, p. 116) calls children “the nonpowerful segment of the population” of audiences who “play” through narratives. The playfully animated cinematic language *Inside Out* develops to prompt metacognitive pondering is not to be run against benchmarks for neural “accuracy,” but against its capacity for helping children and adults understand and think more generously toward one another, and the trials they face together.

This reading takes *Inside Out* up on its offer for deeper interrogation of “the phenomenological differences between emotions” and their relation to other facets of the self “that we take to be psychologically distinct” (Barrett, 2007, p. 379), speculating on what its animated narrative can do that scientific description cannot, and what hermeneutics can reveal about such narratives in turn. It breaks *Inside Out* down into a sequential set of questions about youth and psychology that are raised, complicated, and then answered within the film. This is, perforce, a “sequential hermeneutics,” a variant of “surface” (Best & Marcus, 2009) or “flat” (Love, 2010) reading that, in the tradition of Rita Felski's post-critique (2015), attempts receptivity not just to the manner in which a film develops an argument or vision of the world, or to the experience of thinking and feeling through a film, but aims to reveal what that experience might bring to our lives. I chart how *Inside Out's* unique filmic language, questions and propositions are developed; the exploration culminates in a commentary on modes of receptivity to and recognition of others' experiences that audio-visual imaginings of interior lives, and readings of narrative cinema, can fruitfully facilitate.

Inside Out represents the effortfulness of self-reflexively interrogating inner processes, and through its idiosyncratic cinematic imagination, makes that effortfulness an affectively shared space between filmmaker and filmgoer, adult and child. Our world contains many kinds of reaching out that are incomplete but can operate as recognition that others' experiences and perspectives matter: intersubjectivity and empathy, narration and hermeneutics, or a post-viewing debate over dinner as a continuation of that narrative's salient points. Each is a discussion never quite concluded but that intends to bring multiple perspectives together, locating a point where the perspectives of the narrators and different audience members may converge. *Inside Out* motivates the inherent

intersubjectivity of cinema – these attempts to understand its own imaginatively complex system of cognitive representation – to recognise a comparable effortfulness that happens internally, invisibly, in a developing metacognition as we age.

Animating Systems, Animating Questions

Inside Out begins introducing its empathic mode of metacognitive interrogation by allowing the audience to discover its mechanisms along with protagonist Joy (Amy Poehler). The film opens with a sentimental musical motif over production logos prior to any narrative information, suggesting the kinds of emotions spectators might expect to derive from the film, and also the manner of receptivity to those emotions the film is requesting of its audience. That requested sentimental receptivity to depicted emotive experiences bridges to the film's opening lines, framing the system of representation to be introduced: "do you ever look at someone and wonder: what is going *on* inside their head?" Over a black screen, these lines cue together the filmmakers' animated imaginings of the inside of a person's head, and the viewer's empathic work in imagining themselves into other minds in kind: in both its score and its opening lines, *Inside Out* commences by introducing itself as a work of "empathic imagination" (Stadler, 2017). This foundational empathic work is represented, too, in overlapping screens that converge perspectives. Joy sees what Riley sees through a screen, and so two correlated screens are set up. The filmgoer looks in on emotions in Riley's head through a screen just as those emotions-as-characters will see what Riley sees through a second screen. Lilian Munk Rösing (2015, p. 18) points out that this is a recurrently self-referential Pixar trope, of characters' desires and wonder ignited by watching a screen. She also makes the point that animation can be well-suited to examining what "animates" us internally, which even in these early sequences is clearly set up as one of *Inside Out's* primary concerns.

In *Inside Out*, expressing emotions creates a memory, an orb colour coded for affect (in Joy's case, yellow for happiness), setting up an omnidirectional co-influence between memory, emotions, and their expression. Joy expresses some wonder at this memory before the sphere is passed on through a representation of developing "cognition" as a series of "cogs," shorthand for the developing complexity of Riley's psychology. At this, the viewer's wonder at the colourful animation is intended to be correlated with the wonder Joy expresses in a vast network of cognition. The viewer is already focalised with Joy through her privileged position in the narrational voiceover, however this moment also has the function of correlating the viewer's emotions with those of

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Joy. We might note that Joy, although named for a specific emotion, is also seen to experience other emotions such as wonder – and we will soon see her express confusion and disappointment. Pixar theorists including Eric Herhuth (2017) and Alan Ackerman (2011) note that animated aesthetics in their explicitly ground-up world-creating artifice provide their own means to represent interior aspects of the self that we must similarly imagine, feel and picture, that are not visually concretised and so require imaginative modes of sensing and seeing. Viewers might wonder at the differences between what we feel as an audience, and depictions of what Joy feels, what Riley feels with a mix of emotions inside her head, how those feelings are outwardly expressed, and how other characters are contagiously affected by that expression (c.f. Hatfield et al., 1993). Such is the complexity of the system of representations that *Inside Out* inaugurates, and will promote interrogation of.

As soon as Joy and the audience are familiarised with these fundamentals, Sadness (Phyllis Smith) enters the frame, confounding Joy as they both struggle over the “controls” of Riley’s expression and behaviour in what they comically label Riley’s “headquarters.” This struggle will form the dramatic tension that underscores the rest of the film. As well as introducing the other basic emotions Fear (Bill Hader), Disgust (Mindy Kaling) and Anger (Lewis Black) and their relations to each other as they barter for control over the affective colouring of specific circumstances, the remainder of these foundational scenes set up the film’s basic question, as articulated by Joy: what is Sadness for? What use does she have? Yet this explicit, guiding question posed to the film’s audience is also bound within another, more implicit question of autonomy. The film’s representational system prompts audiences to continually ask where they can pinpoint a sense of executive control between emotions, memories, imagination, and the functioning self with all of its social signals and expressions.

Finally, aspects of personality are represented as islands that are distant from the emotional control room, connected by memories that power those islands, like Hockey Island, Goofball Island, Friendship Island and Honesty Island, making up parts of Riley’s selfhood: things that she enjoys doing, cares about, social tendencies, and intuitive responses to familiar circumstances. In *Inside Out*, personality is comprised of many different attributes, huge rooms and islands that together make up a sense of self – memories, coloured by emotions, inform personality through a system of funnels that make some of those memories long-term, yet at this stage those connections are concealed, not discrete or clear.

This is a complex series of foundational theoretical connections to make in the first seven minutes of a family film. It is clear viewers will be

modelling and making sense of cognition along with the film and its protagonists, although we will see that this sense-making act is never afforded a finality that closes the interrogation or allows us to resolve mysteries of the mind through a unitary metaphor. To attribute interiority is to render and think through another's feelings, and thus "humanise" them in our own eyes by agreeing to attempt to confront, despite the limitations of our representative means, the complexity of their experience and their being (Katz, 2017, p. 79; Moss-Wellington, 2019, p. 17). This is how the film promotes a thinking through animation that both pictorially models thought and is itself a model for metacognitively thinking through that thought (c.f. Bálint & Rooney, 2018), a metacognition that always points to further complexities complicating the limits of its particular audio-visual systematisation of interiority, and the arguments it makes possible.

Inside Out's Audio-visual Metacognition: Music, Gender and Co-Dependencies

At this point, I would like to provide two examples of the manner of commentary on emotion, memory and development that is made possible by the film's auditory and visual language. I have already mentioned the sentimental piano theme. Musical motifs and their repetition are intrinsically another kind of affectively loaded, meaning-giving memory system. Motifs rely on the loading of memory, and shifting emotional connotations given that accumulative memory. They make a coherence by connecting relevant parts of a narrative, and prompt a fusing of those connotations into a new, more emotionally complex, more mixed experience; they require a reflection on the ways the spectator's perspective has changed through a story. Daniel Goldmark (2013, p. 220) observes that Pixar's nostalgic soundtracks typically "address different senses of loss or longing" through revisited musical themes – and this is true too of the score for Docter's prior meditation on cross-generational senses of loss, *Up* (2009). These themes conceptually connect the aural tapestry of each film to its moments of animated melancholy. *Inside Out* makes its case for mixed emotion, or the bittersweetness of social comforts when we are sad, by making its audience sad and then comforting them, and thereafter prompting the viewer to search for meaning within their memory of the conflicts of that experience.

Inside Out's unique visual representational system also affords a number of insights on the relation between the mind and a gendered selfhood in development. For instance, consider an early scene that zooms into the heads of protagonist Riley's mother (Diane Lane) and father (Kyle MacLachlan). Early comic scenes craft humour from what the

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film appears to suggest are essential heteronormative gender characteristics: the domestically disinterested husband daydreaming of sports, for instance, is seen to be fending off the emotionally targeted moralism of a domestically concerned wife. Not great. But one might note something more subtle going on, too: on closer inspection, the characters representing the emotions inside Riley's head appear both male and female, while the emotions inside her parents' heads are more unified in their observable gender characteristics. Audience members attuned and receptive to the symbolic resonances on offer might discern a comment on the social construction of gender. It is clear that Riley is relatively, at this stage, ungendered (and her primary interests pertain to physical activity and sport), yet as we grow up, we might forget and gradually lose sight of a former identity in which our emotions, our memories, our goals and needs were less attached to gender norms, and begin to "perform" our gender through the emotions that are culturally acceptable. Nicole Markotić (2019, pp. 167–168) observes:

the mother's Anger has a deep voice and wears pants and a tie, and the version of Joy inside the father's mind has Joy's same pixie haircut and wears a shapely white shirt [...] that [Riley's] brain is peopled by five distinct and gender-differentiated personalities advocates for gender diversity within a cognitive schema of multiple subjectivities.

This could be considered a continuation of the development of an explicit gender awareness across Disney and Pixar films (Gillam & Wooden, 2008) – and to some readers, an awareness that often narratively or aesthetically contradicts itself (Lugo-Lugo & Bloodsworth-Lugo, 2009). *Inside Out* is clearly interested in documenting the ways in which identity and personhood accommodate internal contradictions, and its depiction of gender and identity performance is a case in point. The attentive viewer might also note that Sadness appears in a leadership position in Riley's mother's head (for example, commanding Joy to feign casual disinterest while asking about Riley's first day at school), where we have seen Joy taking the leadership role for Riley; these contrasts provide another strong portent of some of the emotional developments to come for both protagonist and filmgoer.

During these early scenes we see Joy, Riley's drive to maintain happiness, proffering imaginative ideas that pull in other emotions to collaborate on games, play, and wonder, affecting not only Riley's mood, but the mood of the family around her. For instance, when a removal van is delayed and the family is left with an empty house, Riley picks up a hockey stick and makes a game with a ball of paper, causing her parents to

stop arguing and join in. The projective importance of imagination in shaping the everyday, its coordination of different emotions into an ultimately positive feeling, and its contagion among others is all clear, but the central framing question of the value of Sadness looms unaddressed, and Riley's mother concludes the sequence by couching all of these exertions in the particular, highly gendered purpose of keeping Riley's father happy, as he is stressed at work: "we can do that for him, right?"

The remark has lasting consequences, as Riley will eventually reveal that her inability to live up to these expectations, in effect "repressing feelings to suit perceived parental needs" (Cabaniss, 2015), propels her decision to leave home. It would be easy at this point to note that the film simply critiques social orders that encourage women to maladaptively suppress painful emotions on behalf of male productivity, but the film is surveying at the same time a complex developmental awakening into the ethics of intersubjectivity: we have seen that Riley's exertions have helped maintain a positive family mood with genuine benefits for all three, and this desire to put in effort to co-construct a space in which all can thrive is reasonable. At the same time, the expectations for maintenance of that mood by upholding a singular emotional state are unreasonable, and those expectations fall largely on the shoulders of women. This is important too as it points to how youths are expected to assume, from early in their lives, the emotional labour resultant from neoliberal working conditions that erode boundaries between home and work life (Landers, 2017). As reviewer A.O. Scott (2015) writes, "*Inside Out* turns a critical eye on the way the duty to be cheerful is imposed on children, by well-intentioned adults and by the psychological mechanisms those grown-up authorities help to install." In this way, *Inside Out* demonstrates how young people can, through systems of domestic co-dependency in social identity and emotional labour, come to shoulder much of the stress and anxiety visited by the context collapse of contemporary labour conditions, and its consequences.

What is Sadness For?

Much of the mid-narrative mounts an incremental argument for a purposive role that sadness performs in cognitively adapting to one's developing circumstances. Sadness and Joy's ensuing adventure offers further shorthand for complex internal cognition with Riley's former imaginary friend Bing Bong (Richard Kind), a fantastical amalgam of animals and cotton candy, serving as a tour guide. Together they pass through a series of animator's dreams representing what are perhaps *Inside Out's* most metacinematic moments – comic renderings of abstract thought and imagination that lean more to a commentary on the

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processes of creative arts labour than cognitive theories of reasoning and abstraction, such as the “train of thought,” which Ian Maxwell (2016, p. 82) describes as “a triumph of associative wordplay as much as an attempt to render the insights of contemporary psychology.” Nonetheless, one might glean more of the film’s critical commentary on its own metaphoric language here, including its foundational visualisation of a “body as container for emotions” (Kövecses, 2003, p. 155), with the emotions themselves as containers for other emotions: for instance, the hydraulic model of Anger “letting off steam,” which itself recalls more archaic languages of “passions” and “nervous energies” in need of release through bodily action. *Inside Out* plays with the “dimensionality” of these metaphors, as the emotions undergo a series of representational changes, suddenly finding themselves two-dimensional, or morphing into abstract art. Practically, the relatively nonserious presentation of these aspects of cognition lends an entertaining counterpoint to what might otherwise be an overly maudlin cinematic experience; as Riley has done, they similarly sequester painful emotions for a time to make sense of them, and contribute to the film’s eventual claim to representing mixed emotion.

Throughout this section of the narrative, profound internal changes in a formerly secure sense of being in the world are represented as the progressive collapse of Riley’s personality islands, those cherished aspects of a stable and centred young identity. For instance, Riley’s father tries to cheer his daughter by goofing around, but she is no longer capable of this manner of interaction. Goofball Island collapses into a yawning pit, “the memory dump.” Access to the part of selfhood that can freely understand and enjoy this manner of unselfconscious play cannot come with Riley as she grows and adapts to more demanding social circumstances. Bing Bong knows he is bound for the same destination as those other parts of Riley’s childhood self that are crumbling into the abyss. Upset at being forgotten, he is comforted by Sadness, and here we receive the first indication of a social function sadness might perform. Sadness empathises with Bing Bong, and in sharing their knowledge of unhappy experiences together, they collectively shift their mood. Thus far, Sadness has been expressed as an impulse, unsure of her actions, while Joy has clear motivation: Joy’s drive to be happier and attach to ideas that will improve Riley’s circumstances affects the other emotions, Riley’s behaviour, and those Riley comes into contact with. Katz (2017, p. 72) notes too how Sadness becomes more buoyant throughout the film as she discovers her own purpose, contravening Joy’s initial impression that Sadness is a mere drag, so the character and expression of one’s own negative feelings can change throughout a lifetime. While the function of

Sadness here might seem self-fulfilling – the purpose of sadness is to get past sadness – we also see that the empathic sharing of sad memories and experiences prompts others to revise situations and see their circumstances anew. That is, sad reflection affords future-motivated insight, and the same could be said of sad cinema.

Riley prepares to run away from home, hurling Joy into the pit along with Family Island. It is here that she discovers her first mixed memory: Riley is blue because she missed a shot in a hockey game, but then her family and friends come to comfort and celebrate her, and the latter half of the memory is coloured yellow. The message here is simple, and elaborates on the role we saw Sadness take on earlier in comforting Bing Bong: expressions of unhappiness operate as a social signal that calls to others for assistance in changing our mood. So, we now have sadness as both a social signal, and as an empathic response to the social signals of others, that aids us in collectively changing our perception of adverse circumstances, and forges new possibilities for behaviour. Sadness has the ability to imagine the feeling of a future self without family, drawing memories from the past to project a sadness in the future, ultimately informing a notion of what Riley ought to do, the “directive” function of autobiographical memory (Bluck et al., 2005, p. 93). In fact, it is acting like Sadness and empathically embodying her movements that enables Joy to locate a trail of blue memory spheres and reunite with her. The key that returns Sadness and Joy to headquarters in time to stop Riley from leaving home, however, is an imaginative projection into a more exciting future: a tower of fantasy boyfriends, who Joy uses as leverage to propel herself and Sadness back to the control room.

Mixed Emotions and Conflicted Memories in Development

As Riley returns home to her parents, the control panel turns blue; Riley is overcome with a singular emotion, she cries, and struggles through an explanation of her sadness. She cannot be the happy person she believes her parents need her to be. They respond in kind with their own sadness, their own sense of loss, the things they miss from their former home, and the three of them embrace. The profound melancholy of unrecoverable parts of childhood identity and a shared family identity are blended with “forms of touch and emotional sounds called ‘vocal bursts’ [...] that convey the profound delights of reunion” (Keltner & Ekman, 2015). A beautiful animation of Riley sighing, smiling ever so slightly in her parents’ arms, cues Joy and Sadness to collectively make a new memory with a new emotion: bittersweetness. This bittersweetness is matched by Michael Giacchino’s bittersweet piano score once more coming to the fore, twisting its connotations again to load further shifting and

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blended affects onto another type of mutable memory – not episodic, not visual, a more implicit musical memory.

Inside Out prompts feelings of sentimentality and nostalgia and suggests that these particular intersections of emotion and memory can often coalesce with more melancholy and painful affects, and an equally conflicted sense of meaning, purpose, and identity that can be derived from such feelings:

The film subverts that nostalgia in part by depicting a characteristically 'happy' child undergoing melancholy and even despair. Joy may sequester Sadness throughout the film, but Sadness still manages to 'touch' Riley's memories and nuance her emotions as not starkly happy or miserable [...]. *Inside Out* thereby provides a marked contrast to feel-good movies that serve as cultural pedagogy. (Markotić 2019, p. 165)

Keltner and Ekman (2015) find that “the experience of positive emotions begins to drop precipitously in frequency and intensity” around age 11. Here, Riley confronts the sadness of our separateness: in Markotić's (2019, p. 166) view, the film demonstrates how “growing up sometimes means experiencing loss and feeling sorrow about such loss.” Katz (2017, p. 82) similarly argues that the age of the middle school “tween” marks the onset of an existentially felt reflective loss, and that *Inside Out* acknowledges those painful awakenings in between the child and teen years that other films overlook. The awakening feelings of separateness and individuation during this time are so intrinsic and deeply internal that although they can be signalled through expressions of sadness, they cannot ever be wholly shared, and so we must truly confront for the first time an independent personhood we shoulder alone, as well as the existential limits of intersubjective connections and shared experience. Although film cannot surmount our separateness, it can gratifyingly acknowledge the feeling of that separateness. In offering emotions associated with other-oriented elevation or “self-transcendence” (Oliver et al., 2018), *Inside Out* finds yet another interior conflict we live with: that in acknowledging our respective separateness, we can curiously feel closer together.

It is revealed, at this point, that the film's parallel narrative and emotive arc has been leading all along to the discovery of mixed emotion. But it is not simply that we do not have any mixed emotions earlier in our lives – the struggle over how each memory is coloured represents some overlapping of affective states. It is that as we gather memories made of painful and pleasurable experiences, and update those memories to make them relevant to new emotive circumstances, an accumulation of vastly

different and contrastive memories renders all internal processes ever more blended, unique and convoluted. This is true too at times when Sadness touches and “colours” a memory during recall, rather than just in the moment that memory is made: touchstone memories change in different emotive time periods, and narrative identity is accordingly transformed over time (McAdams & McLean, 2013). Our language for and awareness of incongruous feelings, and the building of mixed emotions into life narratives, emerge as we accrue painful experiences to be integrated into our notions of selfhood. Development even through events that are fairly mundane on the outside – moving interstate – have effortful self-redefinition behind them that characterise the spark of adult autonomy, and this self-redefinition is simply hard work to navigate. It is only through the discovery of more bittersweet and conflicted memories that a new, increasingly autonomous social selfhood in the family is forged – a new Family Island. As Hilde Lindemann (2009, pp. 417–418) succinctly puts it, “As the child grows out of infancy she becomes who she is through the mutual process of accommodating herself to her family and being accommodated by it [...] [I]dentity maintenance also involves weeding out the stories that no longer fit and constructing new ones that do” (see also Minuchin, 1974, pp. 47–48). Those self-reflexive components of one’s identity increasingly draw on a backlog of painful experiences to become, as Markotić (2019, p. 165) has it, *multiple*: “the child becomes better equipped to shoulder not only difficult emotional moments but also her own multiplicity.”

Memories of family can be particularly painful as they remind us of the closest connections that will never be recovered as they were, can never be the same. With growing developmental complexity in our memories and personalities comes a more entrenched sadness, and it can seem that memories contain within them a roadmap of selves we have lost as we make choices and autonomy grows – but this is not the whole story. Loss would be permanent, but *Inside Out* presents a relieving acceptance of memories as changeable rather than accessible or lost, singularly good or bad. In accepting mixed emotions rather than either-or “splitting” (c.f. Gould et al., 1996), we allow for conflicted reminiscence, and those conflicts are important as their very inconsistency is where we might locate the impetus for updating an autobiographical sense of self. Memory and identity (in concert, autobiography) are imaginative processes and so never fixed, and in this way *Inside Out* reconfigures what at first appears to be permanent “loss” (an abyssal memory dump, or a child’s fantasy of abandoning the family) as imaginatively agentive “change” (symbolised in new, richer personality islands at the film’s close). Accepting those inner, affective contrasts and the way they signal

personal change is the closest we might come to locating agency within the film: therein lies a developing autonomy, through a gathering hybridity of emotional experiences and memories that call out for further reflection, further interrogation and further identity redefinition. A denouement reiterates this accumulative internal complexity, and its challenge to identifiable agency, by playfully highlighting a conspicuous “puberty” button in the headquarters: how might hormones figure within a system that is already so convoluted? Again, the film prompts us to keep looking rather than settling on the agents of change. Determining selfhood involves an impossible task: locating personal autonomy among interrelated, multiple and sometimes conflicting aspects of our interior lives to maintain a sense of control, and in the case of youths like Riley, all while the individual is experiencing vast neural changes.

On Effortful Recognition

Inside Out presents a unique celebration of seemingly ordinary, everyday effortfulness in the face of an inherently sad and loss-filled world. Watching a sad movie performs the same function: it registers the hard, imaginative work that is part of life. The film depicts a sensitive and caring girl thinking inward through herself in order to think outward to her effects on others. Scholars often speak of cinema as a vehicle for philosophic thought, and at the very least, this reading demonstrates how a receptivity to those thoughts can reveal ways of thinking that belong not to cinema alone, and not to animated cinema either, or to a specific genre or mode of filmmaking, but to this individual instance of cinema that develops a particular line of metacognitive interrogation using the visual possibilities of animation, the tropes of family dramedy genres, recognisable visual metaphors (such as cogs as cognition) and shifting modal differences between spectatorial and depicted emotions. All of this comes together – via the collaborative imagination of many filmmakers, animators, sound recordists and editors – to prompt another interrogative imagination in viewers, and in this case, some viewers still developing an early capacity to read “inside” other minds. As Benarous and Munch (2016, p. 522) point out, “developing an age-specific mechanism for talking about emotions (i.e., emotion awareness and emotion labelling) has been recognized as an important issue in emotion centered interventions” (see also Markotić, 2019, p. 168). Adults may feel too that earlier efforts so profound in shaping their current selves have been recognised; family films can remind older viewers, in recollecting the exertions and effort of development in world-modelling, emotional regulation, personality and so forth, that we never stop building such a capacity.

The cinematic imagination, and the animations of this particular film, offer relief in recognising the hard work of those interior processes in children whose lives are ostensibly pre-work, pre-labour, using creative methods for bringing those “inside” feelings out to the surface. Burdick (2016, p. 55) worries that “recasting affect as industry overtly links production and emotion,” but the depiction of emotions labouring in a workplace could simply register, for an audience awakening into a world of adult responsibilities, how much hard internal work is already performed at a time that is seemingly prior to adult labour. It is possible that the presentation of pre-teen emotions working hard in their “headquarters” instead offers recognition and acknowledgement of just how difficult these invisible processes are (making meaning from one’s sadness, or the self-interrogation of asking why we act the way we do), and that intergenerational recognition of others’ underacknowledged effort matters. Narrative arts like filmmaking offer unique means for fostering recognition of the depth and complexity and affective vicissitudes of struggles less acknowledged, especially when they are interior and so must be imaginatively evoked (Rösing, 2015, p. 18), or occur within people who have less of a public platform, such as young audiences. Political discourse on recognition is often couched in the Maslowian terms of human need, as when Charles Taylor (1997, p. 99) writes “Due recognition is not just a courtesy we owe people. It is a vital human need.” As people fundamentally need to believe that their exertions matter, so the need for shared recognition traverses all manner of labour (Tonkens et al., 2013). At its heart, recognition is to see and call attention to something invisible that matters to another (Honneth & Margalit, 2001), and stories and cinema can be a way to exhibit this kindness to others (Moss-Wellington, 2019), thereby providing for interlocuters a sense of relief that those invisible feelings and exertions matter more collectively, beyond themselves, and will be accounted for when we imagine others’ lifeworlds. Yet some of our exertions are more private than public, and are therefore more invisible. As young people increasingly struggle to develop a sense of autonomy in hostile market conditions (Landers, 2017) and with consistent reminders of the world’s turmoil in digital media (Hoge et al., 2017), the internal, invisible work of nurturing self-worth through identifiable agency will become ever more important for storytellers to acknowledge.

In the case of film, this recognition occurs through pictures, through sounds. *Inside Out* demonstrates that sad cinema provides more than simply gratifying “excitations” with a positively valenced payoff (Zillmann, 1971), or appreciation of the artist’s skill in providing a vantage on tragedies (after Hume 1757). Recognition of painful internal

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experiences is a more sensitive undertaking that performs multiple kinds of functions. Among the modes of recognition that stories can extend are: recognition that something one cares about (including sad or ugly feelings, political or private topics) is worthy of a deeply felt, shared narrative that commands attention for a time; recognition that someone else struggles with the same problems the viewer does, leaving one feeling potentially less alone as cinema and storytelling constitute a manner of joint thought; recognition of the parts of one's everyday life that can be difficult to navigate, when we have not ourselves admitted to or accounted for such a difficulty; recognition of the painful compromises and insufficiencies of any moral or *ought* position that might result *because* of that inherent difficulty; recognition of ineffable or otherwise unfathomably complex feelings that are so internally powerful but always out of intelligible reach; ultimately a recognition, through otherwise invisible specifics, of the effortfulness of that which is seldom recognised as effortful. But these acts of recognition do not necessarily just happen by the mere fact of telling a story, they require the skill and insight of teams of storytellers and artists to hone down those illimitable feelings and experiences to words, sounds and pictures that will accurately represent invisible struggles that go unrecognised, and so call for narrative illustration.

Finally, I would point out too that hermeneutic modes of reading similarly comprise these things: imagination, modelling, translation, and their own kind of recognition of invisible processes of effortful understanding. More so than other critical modes less focussed on receptive listening to artists and creators, hermeneutics ask us to see what happens when we take up a story's communicative offer to imagine our way into the storytellers' minds, through the minds they have themselves imaginatively created (fiction is its own homuncular conceit, in that we read authorial minds and motivations through invented minds and motivations). This can be hard work. In order to perform this feat, receptive audiences need to build sense-making models of authors and what they intend to communicate, how they communicate, intervening factors that fudge intention, and what ended up being conveyed as a result. There are so many thoughts, emotions, insights and ideas translated from creator into pictures and sounds, and then into audience feelings, and then into the audience's own value-ascribing recollection of those feelings, that all represent the imaginative spaces between us. Like the exchanges between emotions and embodiment and personality and memory and development that *Inside Out* queries, the substance of stories as communication exists in these invisible strings of translation that textual readings can be receptive toward, can recognise. The pathways

between these translations together, somewhat miraculously and always imaginatively, make a particular coherence – but only for a time. Any coherence gleaned will be updated again in the next instance, the next scene, with the next cumulative recollection, and with the next emotive story.

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