

Why imagination is hot but pretense is cool

Abstract: Pretense is often characterized as a form of imagination, more specifically as a sort of enactive imagination. But for the most part, pretending and imagining interact with one’s evaluative / affective systems differently. One tends to respond to imagined content with emotions similar to (albeit more attenuated than) those one would feel if that content was real. When pretending, however, one’s affective responses are often much more generalized, and insensitive to the content of the pretense. We suggest that this is because one’s attentional focus in pretense is on the actions themselves, and their correspondence with the scripts or roles being used to generate the pretense. Moreover, because pretense is intrinsically motivated, pretending is generally fun, irrespective of what, in particular, is being pretended.

Key words: Affect, emotion, fun, imagination, imitation, pretense.

1. Introduction

On the face of it, imagination and pretense share a good deal in common. Both require that we represent counterfactual scenarios while remaining cognizant of how the world actually is; and both are universal human capacities that emerge spontaneously in early childhood development.¹ But, as natural as it is to think of imagining and pretending as closely related, they appear to engage us emotionally in very different ways. In most exercises of imagistic, sensory-based imagination—in contrast with mere propositional supposing—the content of what one imagines is evaluated by one’s affective systems, typically producing a valenced emotional response. In contrast, the content of pretending often leaves one emotionally unmoved. Why should this be so? Why is it that the content of imagining is so often “hot” while the content of pretending is “cool?” We begin by illustrating each of these points in turn.

Imagistic imagining occurs across a variety of contexts and is utilized in a number of different cognitive processes. Take, for instance, deliberative prospection. When one engages in prospection with the aim of decision-making, one will imagine or visually “simulate” a range of future possibilities, responding affectively to each (Gilbert & Wilson, 2007). Arguably, it is the option that *feels best* or

¹ Pretense emerges reliably in the second year of life, cross-culturally (Lillard, 2017), and by preschool, children have the capacity to make clear distinctions between thinking and imagining, perceiving and imagining, and desiring and imagining (Harris, 2000).

seems best that is generally chosen. Likewise, when one engages in mind-wandering—first imagining one scenario and then altering it, then activating an episodic memory of a past event, and so on—one will respond affectively to each of the contents imagined as if they were real. And similarly, when one follows along imaginatively with a novel or a movie, one will respond affectively to the imagined contents that are presented. Thus, the demise of Anna Karenina makes us weep with sadness and the approach of the green slime monster makes us cringe with fear. Roughly speaking, in all of these cases of imagining, contents that are appraised by one’s own value-systems as good are responded to with positive emotion, and those that are appraised as bad are responded to with negative forms of emotion.²

This is not the case with pretense. In the context of pretending one *can* respond to good-seeming scenarios with positive feeling, of course. A child might especially enjoy pretending to be batman, for example, because he admires batman and thinks he is good. As such, the child who pretends to foil dastardly plots and save the day may feel particularly pleased when he gets to play the role of the hero.³ But pretense does not have to be like this, and frequently is not. After all, the same justice-loving child might derive just as much pleasure from pretending to be the villain—one who is determined to thwart the superhero and win at all costs. It is also true that one *can* respond to bad-seeming scenarios with negative feelings. A child pretending to be a dog rolling around in its own excrement, for instance, *might* feel disgusted as she rolls around on the floor in fictional filth. But, the same hygiene-conscious child might also find this performance to be plainly hilarious. In short, one often feels good while pretending things that would otherwise evoke strong negative emotions.⁴

In what follows, we will explore the idea that these differences are best explained in terms of differences in attentional focus. In pretense, the focus of one’s attention is on the actions themselves, together with the scripts and models one is copying and enacting. In imagination, by contrast, the focus of attention is usually on the sensorimotor and conceptual contents that one imagines. As we will show, these differences in focus have a significant impact on the ways in which one’s affective systems are

² In Section 2 we briefly address the long-standing question of whether or not these affective responses qualify as genuine emotions. We think that they do.

³ Note, however, that it can be hard to tell whether the enjoyment here results from the supposed content, *I am batman*, or rather from successful enactment of batman-like actions. We return to this distinction in Section 3.

⁴ The observation that we are capable of feeling pleasure when engaging with bad-seeming representations underlies the so-called “paradox of tragedy.” In the next two sections, we will explore the ways in which such “countervailing” appraisals are triggered differently in imagination and pretense, respectively.

engaged.

To motivate our account, in Section 2 we elaborate on the point that in most uses of imagination our affective systems respond emotionally to the contents imagined. Then in Section 3 we contrast this with the case of pretense and show that, in general, one's affective response to pretend episodes is enjoyment, irrespective of the content of the episode. This will give rise to questions about the nature of pretense, and what pretense is *for*. We will suggest that it is easy to be misled, in discussions of pretense, by the way in which it most frequently manifests in WEIRD cultures (WEIRD stands for Western, Educated, Industrialized, Rich, and Democratic; see Henrich et al., 2010.) Hence, in Section 4, we look at what is known about pretend play cross-culturally. This will set up our argument in Section 5 that the core nature of pretense has to do with performance and imitation of culturally-valued activities, with successful performances being emotionally rewarding in their own right.

2. Affect in imagination

As many theorists have noted, imagination is difficult to define. Loosely, it is often characterized as the ability to mentally represent something *as if* it were the case—all while being aware of how things actually are or at least seem to be. But, of course, this conception of imagination is broad, and encompasses many distinct and overlapping mental phenomena. In the hopes of disambiguating the term, theorists have proposed several different taxonomies of imagination. Some of these are merely descriptive, distinguishing between effortful versus spontaneous imagining, for example (Walton, 1990), while others are differentiated by the apparent roles that imagination can play, such as first-personal perspective-taking versus the creation of novel ideas (Currie & Ravenscroft, 2002).

Here, our focus is primarily on “imagistic” or sensory-based imagination. We focus on this sort of imagination for a few reasons. First, imagistic imagining is most often associated with *imaginative play*, making it an intuitive comparative case for *pretend play*. Second, imagistic imagining can be, and frequently is, recruited in virtually every so-called “kind” of imaginative activity. As such, demystifying the relationship between the affective system and imagistic imagining should provide us with valuable insight into a wide array of imaginative contexts. And third, as we will now endeavor to show, the contents of sensory-based imagining seem to *necessarily* be appraised by one's affective systems (though to varying degrees), while other kinds of imagining are not.

As the designation implies, *imagistic imagining* is typified by the recruitment of mental imagery and other consciously accessible sensory representations. To imagine that the floor is made of lava in this manner is to have a perception-like representation of, for instance, the lava's red-hot glow as it

flows between items of furniture. These representations are often visual, but need not be. One might also sensorially imagine, for instance, the sound of the lava as it crackles and hisses below, or the feeling of hot air as it wafts up from the molten rock. These representations can be generated in the absence of any sensory stimuli (as when one envisions the room covered in lava with one's eyes closed), but can also occur in tandem with live perceptual representations (as when one looks down at the actual floor and imaginatively "overlays" a visual representation of lava where the carpet is). Because of its phenomenological character and apparent reliance on offline perceptual systems, it is generally agreed that mental imagery and perception have similar representational contents (see, e.g., Noordhof, 2002; Nanay, 2016).

In light of contemporary models of affect, it seems increasingly likely that the affective system engages with imagined contents via the same evaluative processes that are employed to emotionally engage with the world around us. To see the strength of this claim, briefly consider a typical case of real-world emotional processing. According to Appraisal Theory, emotional states fundamentally involve evaluations or "appraisals" of an event, object, or situation's significance (Scherer et al., 2001).⁵ On this view, when a novice hiker encounters a coiled rattlesnake in her path, her affective system will generate both automatic and reflective appraisals of her predicament. In this case, the hiker might reasonably appraise the snake's significance as *dangerous*. This appraisal would bring about changes in physiology (e.g. increased heart-rate), prime action tendencies (e.g. readiness to flee), and give rise to negatively-marked hedonic phenomenology (negative valence). This appraisal process is highly dependent on context and experience. If our hiker were a veteran herpetologist, the rattlesnake encounter might instead line up with her goals and be appraised as *an opportunity*; this, in turn, would produce a more positively-valenced emotional response. In both instances, the hikers' appraisal systems are taking perceptual (sensory) and conceptual representations of the world as input, evaluating them in light of existing goals, desires, beliefs, and intentions, and producing valenced emotional responses such as fear and happiness, respectively.

There is good reason to think that the affective system responds to imagistic imagining in much

⁵ Exactly how this significance is determined is a topic of some debate. Many appraisal theorists have posited that the affective system is innately attuned to signals of goal-relevance, goal-congruence and incongruence, moral relevance, social hierarchy, etc. (see e.g., Arnold, 1960; Lazarus, 1991). Regardless of how one individuates these dimensions and whether they are innate or learned, it is clear that affect is produced in light of *some* standing considerations, including but not limited to things like safety, pleasure, social status, and so on.

the same way. Take, for instance, cases of sensorially-based imaginative prospecting. When we prospect, we generate representations of possible futures—a process that has been shown to underlie basic, non-discursive, decision making (Gilbert & Wilson, 2007). When deliberating between hiking two well-known trails, for instance, one might sensorially represent the sights and sounds to be found on each path, the bodily sensation of exertion one might feel as one navigates different terrains, and so on. Although these imagistic contents are not represented as real, they appear to be evaluated as if they were. If the content of one's imagination contains signals of danger (upturned roots, loose boulders, coiled snakes) that content will likely be appraised as dangerous and produce negative valence. Conversely, if the content imagined contains signals of goal-congruence (seeing an impressive vista, crossing a difficult trail off of one's to-do list) it will produce positive valence.

Importantly, it has been shown that these imaginatively generated valence-signals predict the decisions that we actually make (Levy & Glimcher, 2012). Simulated possibilities that produce more positive valence (or less negative valence) are consistently the options that we pursue in real life. Thus the prospected path that feels most good-seeming is the one we will choose to hike.⁶ Because valence is motivating in this way, it is crucial that the affective system engage with imagined content *as if it were real* to produce reliable predictors of potential goodness and badness. To accomplish this effectively, the affective appraisal system must function as it does with live perceptual content: it takes (imagined) sensory and conceptual representations as input, evaluates them in light of one's goals, desires, beliefs, and intentions, and produces motivating emotional responses.⁷

The imagery involved in spontaneous mind-wandering also activates the affective system in similar ways (Buckner et al., 2008). When allowing our minds to wander from the task in front of us, we frequently engage imaginatively with the past, ruminating on what should have happened in past

⁶ This should not be confused with an endorsement of motivational hedonism. Insofar as we take valence to involve representations of seeming-goodness and seeming-badness, a physically unpleasant scenario (e.g. undergoing a necessary medical procedure) may well produce more positive valence in prospecting than a physically pleasurable one.

⁷ This process is admittedly imperfect. Human beings are often quite bad at predicting how future actions will make them feel (see e.g. Hoerger et al., 2010). These flawed predictions do not arise, however, because the affective system appraises imagined content differently than it does content marked as real. Rather, imagining is rarely as fleshed out as our live perceptual and conceptual representations. Instead, it is abbreviated, pared down to seemingly "essential" elements, constructed from biased selection among memories, and so on (Gilbert & Wilson, 2007).

episodes, what would be happening had things been different, and so on. As in cases of prospection, this mind-wandering often has a sensorimotor format and produces affective appraisals of significance and corresponding valence. For instance, when one remembers (that is, episodically imagines from the past), a negative encounter with a friend (their irate tone, the look of anger in their eyes), that scenario will likely be appraised as bad-seeming. When one imaginatively amends that unpleasant exchange, however (substituting in a quick apology, a look of concern instead of anger) it is appraised as good-seeming. Again, it is adaptively advantageous that the affective system responds in this way. For it has been repeatedly found that heightened emotions facilitate learning, and play an important role in the formation of long-term memories (Cahill & McGaugh, 1995; Um et al., 2012; D’Mello et al., 2014). It is precisely because we appraise these hypothetical scenarios as if they were real that we learn valuable lessons from them—lessons that can later be remembered and implemented when the stakes are high.

Finally, when one follows along imaginatively with fictional artworks, one directly appraises the imagined contents that those artworks inspire. When we picture Anna Karenina as she hurtles herself towards her doom, we appraise the imagined scenario as tragic and weep with sadness. When we see a green slime monster stalking its victim on the movie screen, we appraise the imagined content as terrifying, and gasp in horror. Admittedly, we know that these representations (whether generated actively by us or more passively through perception of the artworks themselves) do not correspond with reality (we know that no one is in any real danger, for example), and yet the imagery moves us emotionally to varying extents.

There is a long and complex tradition in aesthetics of problematizing this point in treatments of the “paradox of fiction.” Some have argued, for instance, that such responses do not qualify as genuine instances of emotion (Walton, 1978; 1990). Much of this criticism is inspired by the strong cognitivist claim that affective appraisals require existence-beliefs to issue in real emotions (Solomon, 1988; Neu, 2000; Nussbaum, 2001). For many, this criterion fits with the idea that motivation to act is an essential component of emotion. We think, however, that this characterization does not line up with the empirical evidence. For sure, beliefs do *impact* emotions and *mediate* our emotionally-motivated action tendencies, but beliefs are not *required* for successful appraisal as such. As we have just seen, neither prospection or nor mind-wandering demand that one believe in the imagined contents in order to produce empirically measurable valence and other agreed-upon markers of genuine emotion. It seems that merely representing a scenario in imagination is enough to engage processes that are structurally very similar to those that are involved in appraisals of real-world events (in terms of content, evaluation

tendencies, and output).⁸

At this point one might object that we plainly do not always respond to fictional scenarios with the same kinds of emotion that would be evoked by the corresponding real events. As highlighted in discussions of the “paradox of horror,” human beings seem quite capable of enjoying and seeking out fictional scenarios that would otherwise be appraised as bad-seeming and aversive. For instance, audiences often feel pleasure/exhilaration when watching depictions of perilous fighting and gore—images that would usually turn their stomachs in real-life. And those who watch horror movies generally enjoy the experience, albeit while still experiencing fear.

The framework we have proposed here can make good sense of this disparity, however. For the emotions one experiences depend not just on the imagistic (and conceptual) input presented for appraisal, but also on the way those appraisals are modulated by background knowledge. One sort of top-down modulation of one’s affective response to something is to down-regulate it. Knowing that one is safe in a cinema means that one’s fear-response to the contents unfolding on the screen can be reduced to something more like anxious excitement. This can happen in non-fictional contexts too, of course. Think of the difference in emotional responding as one jumps from an airplane with or without the knowledge that one is wearing a parachute! So one can find the movie exciting and occasionally fear-inducing while admiring the film-maker’s skill, resulting in overall enjoyment of the experience.

There is a second way in which background knowledge can modulate one’s emotional responses to fiction, however. This is because which aspects of the raw sensory input are received for full appraisal by one’s affective systems is partly a function of how one’s attention is directed. And the latter can be guided in a top-down manner, often in ways facilitated by the artist. When one sees fountains of blood and gore in a horror film, for instance, the content of one’s imagination (vicious murders resulting in blood and guts) can sometimes be appraised as disgusting and bad-seeming, giving rise to feelings of nausea as it would in real life. But—and this is in part the beauty of fictional engagement, especially when guided by a skilled movie-maker—one might instead attend to just the dance-like patterns of movement made by the protagonists as they fight, and the interesting shapes created by the resulting fountains of red liquid. Attending to the purely visual/aesthetic properties of the sensory stimuli results

⁸ Which of these markers are necessary and/or sufficient for emotion is a question we will leave open. For now, it is enough to note that imagistic imagining often produces all of the phenomenological, motivational, physiological, and evaluative elements that have been proposed in the debate over emotion’s metaphysical status. For a more detailed elaboration of this argument, see (Author redacted).

in an appraisal of beauty and positive valence rather than one of disgust and horror. In either case, however, what is being affectively responded to is the content that one imagines.

Finally, our view can make sense of the “puzzle of imaginative resistance.” This revolves around the fact that while people are quite flexible in the contents they can imagine (worlds with sentient robots, dragons that defy gravity, etc.), it is surprisingly difficult to imagine a content as morally good when one does not genuinely feel it to be so. Most of us are “resistant” to imagining that Hannibal Lecter is morally praiseworthy for killing people and eating them, for instance. Clearly, we can imagine that *everyone else* admires Dr. Lecter, and we can reason propositionally about the praise he would receive were his actions morally upstanding. But, to find him praiseworthy ourselves *because he is a cannibal* proves challenging.

Like Moran (1994), we believe that this is not an instance of imaginative *resistance* or unwillingness,⁹ but an *inability* of the affective system to produce affective appraisals by fiat. That is to say, if one mentally represents a violent and hungry cannibal, that representation will engage the affective system in line with one’s actual underlying values. With that representational content fixed, one’s appraisal of moral disgust will not change. One can, however, change the content of one’s imaginings to trigger more positive feelings. For example, one might imagine that Dr. Lecter is a cannibal because he is deeply committed to ending world hunger. But some additional content is *necessary* if we are to respond with the feelings of moral acceptance we are being asked to invoke through our imagination. Presumably, this is true for other affectively-based judgments as well, such as those underlying ascriptions of beauty. If asked to imagine that something is the most beautiful object in the world, but accompanied by a physical description that strikes one as decidedly un-beautiful, one may find oneself unable to accept it.

3. Affect in pretense

We have seen how imagined contents generally issue in “hot” emotional responses similar to those that would be evoked were those contents to be real. Before discussing the role of affect and emotion in pretense, however, we need to say something more about what pretend play itself *is*. For there are many different forms of childhood play, of which pretending is only one. Gosso et al. (2007) suggest, for example, that in addition to pretend play, one can characterize forms of exercise play (tree-climbing, chasing, jumping rope), construction play (building a tower of bricks, making a dam across a stream),

⁹ See Gendler (2000), however, for a defense of the “unwillingness” position.

social-contingency play (peek-a-boo, hand-clapping, tickling), rough-and-tumble play (wrestling), and games with rules (soccer, board games). Note that all of these are intrinsically motivated, or done for fun—hence their designation as “play.” Note, too, that most are social in nature, or at least generally take place in a social context of some sort.

As for what distinguishes pretense from other forms of play, it is often said that to pretend something (e.g. that a banana is a telephone) is to *act as if* that thing was true without believing that it is. This isn’t quite right, however. Two children who are rough-and-tumble wrestling on the grass are arguably *acting as if* they are fighting, but that does not necessarily mean they are *pretending* to fight. This is because pretending requires more than some sort of resemblance between the actions the children perform and the activity being pretended. It also requires a particular sort of mental representation on the part of those doing the pretending. To pretend something, one at least has to be thinking about that thing.¹⁰ After reviewing a number of proposals, Picciuto & Carruthers (2016) argue more specifically that to pretend something is to act as if that thing was so *while imagining that it is*. So to pretend that the banana is a telephone is to act as if it was a telephone while imagining that the banana *is* a telephone. And to pretend that one is batman is to act as if one was batman while imagining that one is.

On one reading (the one apparently intended by the authors) we think this description is right, or close to being right; but on another it is not. Using a broad notion of “imagining”, one can imagine something by merely *supposing* it in thought or entertaining it propositionally. And we agree: in order to pretend something one has to be representing that thing in some kind of “suppositional mode.” We do not, however, think that *imagistic* imagining is required for pretense. A child pretending that the banana is a telephone may-or-may-not be visually-imagining telephone-like properties while handling the banana, but she must at least be accessing knowledge of what happens when real telephones are used, mapping and adapting that knowledge into her own subsequent motor plans. And while the banana is incorporated into those motor plans as if it were a telephone, the child does not have to be visually imagining the banana to be a telephone, nor seeing it as such.¹¹

¹⁰ Of course, the wrestling children *might* be thinking about fighting and thus be pretending, as when the episode begins with one of them saying, “Let’s be gladiators fighting to the death!” But that would be a special case.

¹¹ Another frequently proffered account of what distinguishes pretense from other forms of play is that it has a symbolic nature (Lillard, 2017). On this view, the child uses the banana to *symbolize* or *represent* a real telephone, and the child’s actions while pretending to be talking on the telephone then *represent* the action of talking on a telephone. But this doesn’t seem quite right either. Granted, one can say that the banana *stands in for* a telephone

So, why is pretense intrinsically rewarding, while the pleasantness of imagining seems to vary based on the content of what one imagines? Does it have something to do with the fact that pretense is generally overt, happening in the real world, involving real action, whereas prospection and artistic uses of imagination are not? Perhaps. But the relationships here are messy. For one thing, although pretense is generally overt, it doesn't have to be. One can pretend to be the Queen of England without doing anything much overtly. Rather, one might sit immobile while looking around at the everyday items in one's home thinking to oneself in a plummy English accent, "How shoddy!", "How do people live like this?" and so on. And although prospection generally involves *mental* rehearsal of actions, it can also be done overtly. Think of a sculptor making a marble bust, who might physically rehearse different chiseling motions in order to evaluate their likely consequences. ("I could strike it *here* like *this*, or I could hit it *there* like *that*.") Moreover, prospection, mind-wandering, and fictions, too, can concern items in the real world. Fictional lava, for instance, can imaginatively flow between real pieces of furniture. And if one mentally rehearses the acts of eating *that* apple or *that* banana, one's prospective imagination is concerned with real, worldly items, just as much as pretense is.

Instead, we suggest that what makes pretend play affectively unique is that it generally involves appraisal of the pretended actions themselves—specifically, appraisal of how well one's pretended actions map to the actions or scripts being imagined and approximated. This tendency is especially salient in cases of pretense that are explicitly *performative* in a way that neither prospection, mind-wandering, nor artistic forms of imagining are. A great deal of pretense, for instance, is undertaken jointly with others, and much of the positive enjoyment derives from just that: successful joint action. As we noted at the start, a child playing the bad guy in a game of "cops and robbers" can take pleasure in successfully enacting his role, even when the imagined contents of that role are unsettling, involving theft, violence, murder, and so on. While the representational content of these events is usually appraised as negative, they do not seem to engage one's value systems because one is focused, rather, on engaging in a *successful* pretense, i.e. playing one's part well. When one acts the part of a robber shooting the store-owner, one isn't focused on the criminal nature of the event, nor does one imagine the suffering of the victim or her family. Rather, one focuses on playing one's role by doing the deed with panache, escaping at speed in the pretend getaway car, and so on.

in the child's play, and in that sense represents it. But the child's actions otherwise have none of the usual properties of a representation. They don't have a communicative function, and neither do they have the cognitive functions of representing that something is the case in thought.

Admittedly, pretense can also be solitary, especially in the small nuclear families now characteristic of much of the developed world. It is still generally true, however, that in solitary pretense one's focus is on successfully executing a script or action-sequence ("the teddy-bears are having a tea party"), rather than on the value-related contents of the sequence itself. So in that sense the pretense is still "performative", even though there is no one for whom the child performs. Even when a child alone is pretending something negative, the primary focus will be on the actions themselves. Thus, a child alone pretending to be a notorious gun-slinger shooting down the town sheriff is focused on the swiftness of the draw, rather than the consequences for the sheriff. And something similar can then be true of the child pretending that her doll is attacked and eaten by a bear—she is focused on enacting a dramatic script.

Consider now a case of solitary pretense that might seem tailor-made for the view that affective responding when pretending *can* be (and can *centrally* be) to the contents pretended: playing with imaginary friends. Many children (especially those who lack siblings) go through a phase of having, and regularly play-interacting with, an imaginary friend. When a child is enacting—and enjoying—a conversation with his imaginary friend, it is natural to think that the enjoyment arises from the imagined content, *I am chatting with my friend*. That is to say, the emotional response here might seem to be generated in the same way as would happen if the child were really chatting with a real friend in the manner pretended. But even this case is not completely obvious. There is a subtly different interpretation: what is being enjoyed is a sequence of actions successfully generated from the child's chatting-with-a-friend script or template. What is enjoyed can be the fun that intrinsically attaches to actions that copy and modify a culturally-valued template. So the object of positive affective appraisal here can be the property of copying actions that are valuable—in this case, copying the actions involved in a chat with a friend—rather than the scenario pretended, *chatting with a friend*.

In many real cases, of course, one might expect to find overlapping mixtures of the two accounts just outlined. That is, the child might *both* be having fun selecting his own actions by mapping from the chat-with-a-friend template *and* receiving direct comfort when the imaginary friend is imagined to respond sympathetically on being told about the bullies at school, for example. In the latter respect the child will be responding affectively much as if a real friend were offering emotional support. As a result, we certainly don't wish to claim that one *never* responds emotionally to the pretended content of a pretense (let alone that one *can't* do so). Our point is rather that this need not happen, and frequently doesn't.

4. Pretending across cultures

We explained in Section 2 how imagined contents are automatically appraised by one's valuational systems, issuing in forms of positive or negative affect. And we have argued in Section 3 that pretense is different. The content of the pretense—what is pretended—doesn't generally give rise to an affective response. We have also introduced an account of the nature of pretense that can potentially make sense of this difference. On this view, to pretend something is to use knowledge of that thing as a model or template for the pretend-actions one undertakes. And in pretending, one's focus is on the modeling relation itself and one's subsequent actions, not on what those actions would mean if they were real.

This account would be both stronger and better supported if it meshed successfully with the best theory of what pretense is *for*, or what its *function* is.¹² Many proposals have been made in the literature. Some have suggested that pretend play serves to develop capacities for reasoning and counterfactual thinking (Harris, 2000; Weisberg, 2015), others that it is for developing a theory of mind, or “mindreading” abilities (Leslie, 1987; Harris, 2005), others that it is to strengthen executive functions (Bergen, 2002; Carlson et al., 2014), and yet others that it is to develop adult creativity (Russ et al., 1999; Picciuto & Carruthers, 2012). Lillard et al. (2013) offer an extensive review of these and other proposals, showing that the evidence alleged to support them is shaky at best.¹³

It is possible that pretend play has a role in the development of all these capacities—with the exception, perhaps, of theory of mind, given the evidence of precocious mindreading abilities in infants as young as six months of age, well before pretend play begins (Southgate & Vernetti, 2014; Scott & Baillargeon, 2017; Hyde et al., 2018). But what is striking is that theories of pretense have generally been put forward to explain the kinds of pretending that dominate in the contemporary cultures where psychologists mostly do their work and pursue their developmental studies. Here fantasy forms of pretend play are heavily represented. But all of these cultures are WEIRD ones (Western, Educated, Industrialized, Rich, and Democratic), quite different in many respects from those that have been historically dominant, and that are still widely represented across the world today.

What is true, and what everyone acknowledges, is that pretend play itself is a cultural universal. It is exhibited by almost all children in every culture that has ever been studied, even in those where it is

¹² Note that *function* here can be construed in adaptive—evolutionary—terms, on the one hand, or else in terms of *current* functions—what is reliably *done* or *achieved*—on the other (Wright, 1973; Cummins, 1975).

¹³ However, more recent and better-conducted studies may provide some support for an executive-function-enhancing account (Thibodeau et al., 2016; Lillard, 2017; Lerner & Goldstein, 2018).

actively discouraged by adults. Moreover, it appears and disappears on a fixed developmental timetable—first manifesting in the second year of life, peaking in frequency between the ages of three and five, and generally ceasing altogether by around the age of ten or eleven (Lillard, 2017). This suggests that the core motivation to pretend is innate or innately channeled—though whether that motivation is *sui generis*, or is rather a subspecies of innately channeled motivations to imitate others (Shea, 2009) or to engage in suppositional-imagination generally (Picciuto, 2009), can be left open.

While pretense itself is universal, the forms that it takes (the sorts of things that children pretend to be or do) vary widely by culture. This is, no doubt, why most theories of pretense have focused on functions that are domain-general, such as counter-factual reasoning or executive function. But such variation is equally consistent with the theory of pretense proposed by Bogdan (2005), namely that pretense is for cultural learning. For if children mostly pretend things that are valued and important in their culture, then pretense can have a domain-general function while differing widely in its contents across cultures. For cultures themselves vary widely in their contents, of course.

Notably, toward the conclusion of their skeptical review and critique of the various proposed theories of the function of pretense, gleaned mostly from studies conducted in the developed West, Lillard et al. (2013) say the following: “But just as watching television generally does not help development even though watching particular content can, the evidence reviewed here suggests that pretend play might not generally help development on its own but that playing with particular content can.” We think that a view of this sort fits well with the ethnographic evidence, too, as we now discuss.

The background framing for our discussion is provided by the work of Henrich (2016) and others, who use a wide range of psychological, ethnographic, evolutionary, and formal-modelling data to demonstrate that culture and cultural learning provide the key distinguishing characteristic of human beings as a species. It is cultural evolution and cultural learning (combined with some individual inventiveness) that explains how humans have been able to successfully colonize every sort of environment on the planet, from rain forests, to deserts, to open plains, to high altitudes, and even to the frozen arctic itself. All of this is made possible by culture. An individual or group naïve to the local culture, no matter how smart and well-educated in Western science, would not survive more than a few weeks in many of these environments. (Henrich details a number of historical incidents that illustrate precisely this point.) The most basic developmental task for a human child, then, is to become a fully-competent member of the local culture. This means acquiring the local language, obviously, as well as internalizing the culture’s norms and religious practices; but it also means acquiring the knowledge and skills that are needed to become a successful and productive adult member of the culture.

Turning now to the nature and role of pretense across traditional communities, Lancy (2015) provides a review of pretend-play activities across a wide range of hunter-gatherer and subsistence-farming cultures. There are a number of striking findings. One is that across many cultures, children have acquired most of the skills necessary for successful adult work by about the age of ten (when pretend play normally ceases). And although pretend play is ubiquitous among children across cultures, much of that play is a sort of work-play, closely mirroring the subsistence-skills needed by the community. Indeed, in many of these communities even toddlers are permitted to handle adult tools, including sharp knives and axes (Lancy, 2016). And across almost all traditional societies adults take the view that children will learn things by themselves. Attempts at teaching are rare, and adults rarely engage in pretend-play with children. In addition to work-play, children's role-play, too, is mostly focused on imitating cultural roles and practices that they observe every day.

Lancy (2015) summarizes the findings of his review of studies of play across these traditional communities thus: "Our current [Western] understanding of play as the antithesis of work is atypical. Play and work are integrated not only thematically—as in make-believe—but practically, as child minders [generally older children] are most effective when they keep their charges engaged in play. Furthermore, it is very clear that critical skills are being acquired and applied through playful work."

In similar spirit, Edwards (2000) conducts a re-analysis of data from a set of ethnographic studies collected in the 1950s, looking at play among children in small towns or villages across six cultures: in Kenya, Mexico, Japan, the Philippines, India, and a rural town in the United States. At the time, most of these communities were relatively isolated from WEIRD influences (with the exception of the town in the United States, of course). Edwards discusses the forms and prevalence of creative-constructive play and games with rules, in addition to fantasy play and role play.

Creative-constructive play was found to be frequent in all six communities, leading the author to postulate that children have a developmental need to make and combine things. Games with rules, in contrast, were only common in the three more-developed communities, and were most frequently seen in school playgrounds where children could interact with same-age peers. Fantasy play was found in all six communities, but much less in societies where children weren't exposed to much novelty, and had less freedom to roam and play with partners of their choice without adult supervision. Role play was quite common in all communities (and was generally heavily gendered, reflecting the nature of the communities themselves). In some communities (especially subsistence ones) role play often took the form of the kind of work-play discussed by Lancy (2015), where children imitated the working activities of same-gender cultural models, gradually transitioning into making genuine contributions to the

household.

Edwards (2000) summarizes and illustrates the role-play findings thus: “They [children] used mud, sticks, stones, and other natural materials to imitate adult roles of cooking, grinding, and plowing, and tied rocks and rags to their backs as pretend babies. They also used knives, pangas [a bladed African tool like a machete], and axes to imitate adult work and food preparation, as early as ages 2 and 3. Smoking and telephoning seemed to be two adult pleasures that children avidly imitated. Small children also liked to play school in imitation of their older brothers and sisters.”

Finally, Gosso et al. (2007) studied the pretend play of children in five Brazilian communities: a hunter-gather Indian village, but one that now has significant contact with a nearby town; a low-SES area of a seashore town in a highly forested region; a low-SES urban shanty-town; a high-SES gated community in a city; and a mixed-SES sample from a school attached to a public university in the same city. The contents of pretend play were heavily gendered across all five communities, with play among girls revolving more around care-giving roles, daily activities, and female-specific work, and among boys involving a variety of more male-oriented themes including transport and play fighting, together with entertainment-related fantasy themes such as dancing as a vulture in a local carnival.¹⁴

What emerges strongly from the anthropological literature, in fact, is that children across cultures mostly enact culture-specific themes and activities that reflect the values and life-ways of their communities (Haight et al., 1999). It is reasonable to postulate, then, that the function of pretend play is cultural learning and culture-specific skill acquisition.¹⁵ Where the ambient culture is of a subsistence sort and contains only a limited range of adult roles and activities, pretend play will appear somewhat limited in its contents, and will often merge smoothly into forms of playful work. But where the culture contains a wider variety of more specialized roles, children’s play will be enriched accordingly. And then in (WEIRD) cultures where pretend play is actively encouraged by care-givers, creativity is valued, and

¹⁴ The authors note that in other publications they have studied additional forms of play in these communities as well, including physical exercise (swimming, climbing); social contingency (tickling, peek-a-boo); rough-and-tumble; construction; and games with rules. Across all five groups the most frequent forms of play were pretense (37%), physical-exercise play (29%), and construction play (17%).

¹⁵ Here we intend “function” in the sense of “current function” (Cummins, 1975) as opposed to “adaptive function” (Wright, 1973). We aren’t in a position to know the precise evolutionary forces that led human children to have an intrinsic drive to engage in pretense. It seems likely, given the ethnographic evidence, that these would have included cultural learning. But they might also have included pressures for the swifter development of executive functions, or perhaps even creativity.

people have leisure to produce and engage with a wider range of cultural products (including books, films, and TV programs), fantasy forms of pretense will become much more common, and much more varied.

Nevertheless, we think that even in WEIRD cultures, pretense is, at its core, about acquiring culture-specific skills and abilities. Interestingly, in a study conducted with children aged three to six in the United States, Taggart et al. (2018) find that when children are presented with a choice between *pretending* to perform some activity (riding a horse, driving a tractor, feeding a baby, cutting vegetables, and so on), on the one hand, or doing the real thing, on the other, they overwhelmingly prefer the real activities. And when they do express a preference for pretending, they justify their choice by citing worries about their own competence or safety (e.g. that they might fall off the horse). This comports nicely with the preparation-for-adulthood account of the function of pretense offered here.

5. Pretense as performance

What we suggest, then, is that the core nature of pretense involves the selection of culturally-salient or culturally-significant behaviors, persons, or scripts that serve as templates for generating pretend activities. In many traditional cultures the selected target is imitated quite closely, but with variations necessitated by the child's own abilities and the available materials. In cultures where pretend play is actively encouraged, however, even more variations can be introduced, leading to creative divergences between the selected target and the child's own activity (often for the further amusement of oneself or one's playmates). This loosening of the relationship between template and behavior can be a result of normal affective learning (when children are socially rewarded for deviating off-script). Alternatively, it can itself result from imitation of adult playmates who serve as exemplars, and who see themselves as required to encourage the child to be creative (reflecting our particular cultural *zeitgeist* regarding the importance of pretend play; see Lillard & Taggart, 2017).

Nevertheless, in all cases the child's focus is on creating a mapping from the chosen target to her own actions (with or without variations). And pretense is appraised by the child as successful (and hence fun) to the extent that such mappings are present. In consequence, children generally will not (and certainly need not) represent and emotionally appraise what would be happening if their pretend actions were real. Hence even forms of pretense that would be horrifyingly bad, frightening, or disgusting if they were real can fail to evoke regret, fear, or disgust. Moreover, pretending of these sorts is still fun.

While many have emphasized the fact that imagination helps us pretend, our view accounts for

why their different modes of affective engagement can at times be at odds with one another. Imagistic imagining often plays a role in setting the target for pretense, enriching our ability to imitate actions and enact scripts. A child pretending to be Godzilla attacking a building, for example, may call up remembered images from a movie of how Godzilla behaves, setting a more detailed template for her own behavior. But notice that in order for pretense to be successful, one must sometimes affectively disengage from those imaginary contents by selectively changing or suppressing them. This is because when the imagined content that accompanies acts of pretense is too affectively salient or too attention-grabbing, it can ruin one's efforts at pretense. For instance, were the child pretending to be Godzilla to call to mind remembered images of screaming people leaping to their deaths from the building's windows, she might be unable to continue her role-play with the required ferocity, leading the pretense to be appraised as a failure.

It is a further advantage of our account, we think, that it smoothly explains the commonalities between pretend play, on the one hand, and pretense undertaken as a form of deceit, on the other. The difference between the two is motivational: pretend play is intrinsically motivated, whereas one's motivations for deceit are generally extrinsic. If one pretends to be angry with someone as a form of punishment, to alter their behavior, one is accessing one's knowledge of how angry people behave (their facial expressions, their tone of voice) and modeling one's own behavior on that. Here too (as in much pretend play in traditional societies), one's focus is on getting the correspondence as accurate as possible; and yet one doesn't generally induce real anger in oneself. Likewise, if one pretends to be grateful for a gift that was actually unwelcome, one is focused on convincingly behaving in the way that pleased people behave (or at least convincingly enough to be polite), while one actually feels annoyance or disappointment.

Finally, some additional confirmation for our view can be gleaned from a common form of adult pretense, namely acting in the theatre or cinema. Here, just as in childhood pretend play, the actors are following a script and playing a role; and their focus is on getting the role *right*. And as a result of that focus, actors rarely undergo spontaneous emotions that are appropriate for the role they are playing. On the contrary, in order to make their sadness seem more authentic, an actor while performing might be imagining some wholly separate sad-making event from the actor's own life, so as to induce real sadness. This would not be necessary if pretending with a given content naturally induced affective states appropriate for that content, as actually happens in prospective imagining, mind-wandering, and when consuming (rather than producing) imagined contents in theatre or film.

6. Conclusion

We first set out to explain and substantiate what might be called the “puzzle of pretense.” Despite the naturalness of thinking of pretense as a sort of enactive imagination, why is it that imagined contents generally give rise to content-appropriate emotional reactions whereas pretended contents do not? Our proposed solution is that one’s focus, in pretense, is on the mapping from the pretended events or activities to one’s own actions, not on the affective significance of those pretended events themselves. In support of this proposal, we have argued that the core function of pretense is to facilitate the acquisition of culturally-important abilities and skills.

References

- Arnold, M. B. (1960). *Emotion and Personality*. New York: Columbia University Press.
- Author (redacted).
- Bergen, D. (2002). The role of pretend play in children’s cognitive development. *Early Childhood: Research and Practice*, 4, 1-13.
- Bogdan, R. (2005). Pretending as imaginative rehearsal for cultural conformity. *Journal of Cognition and Culture*, 5, 191-213.
- Buckner, R., Andrews-Hanna, J., & Schacter, D. (2008), The brain's default network. *Annals of the New York Academy of Sciences*, 1124: 1-38.
- Cahill, L., & McGaugh, J. (1995). A novel demonstration of enhanced memory associated with emotional arousal. *Consciousness and Cognition*, 4, 410–421.
- Carlson, S., White, R., & Davis-Unger, A. (2014). Evidence for a relation between executive function and pretense representation in preschool children. *Cognitive Development*, 29, 1-16.
- Cummins, R. (1975). Functional Analysis. *Journal of Philosophy*, 72, 741-765.
- Currie, G. & Ravenscroft, I. (2002), *Recreative Minds: Imagination in Philosophy and Psychology*. New York: Oxford University Press.
- D’Mello, S., Lehman, B., Pekrun, R., & Graesser, A. (2014). Confusion can be beneficial for learning. *Learning and Instruction*, 29, 153–170.
- Edwards, C. (2000). Children’s play in cross-cultural perspective: A new look at the *six cultures* study. *Cross-Cultural Research*, 34, 318-338.
- Gendler, T. (2000). The puzzle of imaginative resistance. *The Journal of Philosophy*, 97, 55–81.
- Gilbert, D. & Wilson, T. (2007). Propection: Experiencing the future. *Science*, 317, 1351-1354.
- Goldstein, T. & Lerner, M. (2018). Dramatic pretend play games uniquely improve emotional control in

- young children. *Developmental Science*, 21, e12603.
- Gosso, Y., Morais, M., & Otta, E. (2007). Pretend play of Brazilian children: A window into different cultural worlds. *Journal of Cross-Cultural Psychology*, 38, 539-558.
- Haight, W., Wang, X-L., Fung, H., Williams, K., & Mintz, J. (1999). Universal, developmental, and variable aspects of children's play: A cross-cultural comparison of pretending at home. *Child Development*, 70, 1277-1488.
- Harris, P. (2000). *The Work of the Imagination*. Oxford: Blackwell.
- Harris, P. (2005). Conversation, pretense, and theory of mind. In J. Astington & J. Baird (eds.), *Why Language Matters for Theory of Mind*, New York: Oxford University Press.
- Henrich, J. (2016). *The Secret of our Success: How culture is driving human evolution, domesticating our species, and making us smarter*. Princeton, NJ: Princeton University Press.
- Henrich, J., Heine, S., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences*, 33, 1-23.
- Hoerger, M., Quirk, S., Lucas, R., & Carr, T. (2010). Cognitive determinants of affective forecasting errors. *Judgment and Decision Making*, 5, 365–373.
- Hyde, D., Simon, C., Ting, F., & Nikolaeva, J. (2018). Functional organization of the temporal-parietal junction for theory of mind in preverbal infants: A near-infrared spectroscopy study. *Journal of Neuroscience*, 38, 4264-4274.
- Lancy, D. (2015). Children as a reserve labor force. *Current Anthropology*, 56, 545-554.
- Lancy, D. (2016). Playing with knives: The socialization of self-initiated learners. *Child Development*, 87, 654-665.
- Lazarus, R. (1991). *Emotion and Adaptation*. New York: Oxford University Press.
- Leslie, A. (1987). Pretense and representation: The origins of "theory of mind". *Psychological Review*, 94, 412-426.
- Levy, D. & Glimcher, P. (2012). The root of all value: a neural common currency for choice. *Current Opinion in Neurobiology*, 22, 1027–1038.
- Lillard, A. (2017). Why do children play? *Trends in Cognitive Sciences*, 21, 826-834.
- Lillard, A. & Taggart, J. (2017). Pretend play and fantasy: What if Montessori was right? *Child Development Perspectives*, 13, 85-90.
- Lillard, A., Lerner, M., Hopkins, E., Dore, R., Smith, E.D., & Palmquist, C. (2013). The impact of pretend play on children's development: A review of the evidence. *Psychological Bulletin*, 139, 1-34.
- Moran, R. (1994). The expression of feeling in imagination. *The Philosophical Review*, 103, 75-106.

- Nanay, B. (2016). Imagination and perception, in A. Kind & P. Kung (eds.), *Knowledge Through Imagination*, New York: Oxford, 124–134.
- Neu, J. (2000). *A Tear is an Intellectual Thing: The meaning of emotions*. Oxford: Oxford University Press.
- Noordhof, P. (2002). Imagining objects and imagining experiences. *Mind and Language*, 17, 426-455.
- Nussbaum, M C., (2001). *Upheavals of Thought: The intelligence of emotions*. Cambridge: Cambridge University Press.
- Picciuto, E. (2009). The pleasures of supposition. *Philosophical Psychology*, 22, 487-503.
- Picciuto, E. & Carruthers, P. (2012). The origins of creativity. In E. Paul & S. Kaufman (eds.), *The Philosophy of Creativity*, New York: Oxford University Press, 199-223.
- Picciuto, E. & Carruthers, P. (2016). Imagination and pretense. In A. Kind (ed.), *The Routledge Handbook of Philosophy of Imagination*, New York: Routledge, 314-325.
- Russ, S., Robins, A., & Christiano, B. (1999). Pretend play: longitudinal prediction of creativity and affect in fantasy in children. *Creativity Research Journal*, 12, 129-139.
- Scherer, K., Shorr, A., & Johnstone, T. (eds.). (2001). *Appraisal Processes in Emotion: Theory, methods, research*. New York: Oxford University Press.
- Scott, R. & Baillargeon, R. (2017). Early false-belief understanding. *Trends in Cognitive Sciences*, 21, 237-249.
- Shea, N. (2009). Imitation as an inheritance system. *Philosophical Transactions of the Royal Society B*, 364, 2429-2443.
- Solomon, R. (1988). On emotions as judgments. *American Philosophical Quarterly*, 25, 183-191.
- Southgate, V. & Vernetti, A. (2014). Belief-based action prediction in preverbal infants. *Cognition*, 130, 1-10.
- Taggart, J., Heise, M., & Lillard, A. (2018). The real thing: Preschoolers prefer actual activities to pretend ones. *Developmental Science*, 21, e12582.
- Thibodeau, R., Gilpin, A., Brown, M.M., & Meyer, B. (2016). The effects of fantastical pretend-play on the development of executive functions: An intervention study. *Journal of Experimental Child Psychology*, 145, 120-138.
- Um, E., Plass, J., Hayward, E., & Homer, B. (2012). Emotional design in multimedia learning. *Journal of Educational Psychology*, 104, 485–498.
- Walton, K. (1978). Fearing fictions. *Journal of Philosophy*, 75, 5-27.
- Walton, K. (1990). *Mimesis as Make-Believe*. Cambridge, MA: Harvard University Press.
- Weisberg, D. (2015). Pretend play. *WIREs Cognitive Science*, 6, 249-261.

Wright, L. (1973). Functions. *Philosophical Review*, 82, 139-168.