Archetypes Embodied, Then and Now

Ellen Spolsky
Bar-Ilan University

Abstract With Renaissance paintings of the Annunciation to Mary and the 1984 and 1991 *Terminator* movies as examples, this essay notes a common interest in the availability of help from a superhuman source. It argues that the yearning for access to a powerful hybridity, a cooperative mixing, a productive grotesque, is an archetype. However, with the support of some recent hypotheses in evolutionary anthropology and biology, the article refurbishes the term *archetype* for reuse, recognizing that it signals a painful cognitive failure. The cognitive perspective allows us to understand how our brains not only organize but also *re*-organize, as the world turns, not only our literary experience but also our ethical and political thinking. Artists and poets return to old stories and reconsider old images not because they are, as Northrop Frye considered them, successfully integrated clusters, but because they are not. By acknowledging their many threads and their recombinatory possibilities, we recognize them as affordances whose recurrence arises from their frustrating resistance to untangling. Artists continue to search for a more pleasing, a more satisfying, a more cooperative and thereby more life-sustaining hybridity between the human and the nonhuman, be that divine or machine. They return repeatedly to reuse archetypes not because they are satisfying but because they might yet be.

Keywords archetypes, Annunciation to Mary, *Terminator* movies, cognitive criticism, cognitive literary history

Time and place being right, religious art offers a kind of transcendence. With as much strength and brilliance as can be forced from marble, oil paint, gem tesserae, and gold leaf, the greatest artists of the Renaissance

must, just now and then, have afforded their audiences a feeling of connection to divine power. In Fra Angelico's luminous, rich, and busy picture illustrating the story of the Annunciation from Luke 1:26–38 (figure 1), the angel has alighted and announces to Mary that she will bear a child by means of a miraculous conception: "The Holy Ghost shall come upon thee, and the power of the Highest shall overshadow thee." The angel tells her that the child will be a marvelous category mix: "That holy thing which shall be born of thee shall be called the Son of God." Surprised, then confused, Mary submits, "Be it unto me according to thy word," and names herself "the handmaid of the Lord" (Luke 1:35–38).

The painting itself enacts the artist's hopes for his own work: that human material creativity can deliver divine power into this world. He takes on the role of an intercessor or messenger, inviting Christians to contemplate the accession in human history of otherworldly power. Eyes on the miraculous interchange between Gabriel delivering and Mary receiving the good news, the viewers' kinesic intelligence resonates with the familiar acts of kneeling, bowing heads, crossing arms. When the artist is most successful, then, the audience's interaction with the work of art may construct and embody its

Figure 1   Fra Angelico, *The Annunciation*, 1425–28. Prado Museum, Madrid. Photo credit: Erich Lessing / Art Resource, NY

Figure 2   *Terminator Two: Judgment Day*, poster, 1991. Edward Furlong, Arnold Schwar-zenegger, and Linda Hamilton. Source: Movie Stills Database

mutual desire. From a cognitive perspective, we could say that the work of art affords viewers an intimation of transcendence by evoking mirroring motor responses in their own bodies.

In the movies of the last thirty years of the twentieth century, hybridity was again offered, but instead of a man/god incarnation, the connection was that between a man and a machine of superhuman power. James Cameron's movies *The Terminator* (1984) and *Terminator Two: Judgment Day* (1991) (see figure 2) suggest the possibility of salvation from another world and, as in Fra Angelico's *Annunciation*, the artist himself produces the connection. The mother is again an intermediary between a child savior and an intervention-ist superpower. Now the Terminator of the title is a cyborg who supports her in maintaining the saving connection between worlds.

Both the earlier and the later art—the later much more directly—rep-resent a painful truth. The human powers required to supply humans' own needs are less than sufficient, but the stories that matter are made by those who accept the challenge to ramp it up. In both the earlier and the later narratives, otherworldly support is offered. Gabriel promises Mary such help, and the first *Terminator* movie contains a similar annunciation.[1] In both works

1. So far there have been five movies and a TV series, *Terminator: The Sarah Connor Chronicles*.

the life-giving bond between mothers and sons channels the connection between material and spiritual worlds. My comparison between art forms separated by many years yet expressing the same concerns is part of the larger ongoing project within cognitive literary studies aimed at describing the cognitive, cultural, and communal functions of art. These forms adumbrate their artists' enduring hope that their own powers—their handiwork, their material creativity—may just be able to find a straight way through an old tangle. Northrop Frye (1957: 102) described these reappearing "associative clusters" as "learned cultural archetypes" that "connect one poem with another and thereby help to unify and integrate our literary experience" (ibid.: 99).

Frye specifically differentiated his clusters from "intrinsic or inherent correspondences." He insisted that "there are no *necessary* associations" between images and meanings. In retrospect, it seems likely that Frye was pushing back against what he felt was the unarticulated assumption on the part of some anthropologists and psychologists that these recurrent clusters were biological universals within the minds of specifiable groups of people. He considered Carl Jung's proposal of a race memory or a collective unconscious "an unnecessary hypothesis" (ibid.: 112). But what Frye seems to have considered a necessary revision deferential to non-Western cultures didn't ultimately succeed in defending his notion. Within little more than a decade, the archetypes of canonical Western literature, even when not considered universals, were accounted signs of an indefensible cultural triumphalism. Lacking an acceptable alternative explanation for recurrence, the notion of an archetype disappeared rather quickly from scholarly discussion of literature and art.

Current cognitive thinking, however, invites a reconsideration of the recurrence and reuse of image clusters at the level of evolved brain architecture and processing. Organisms, an evolutionary perspective teaches us, don't give up on a structure or a process that has been successfully adaptive. As the context changes, there can be further adaptation. A new appreciation of the dynamics of cognitive processing, especially in the current discussion of the cognitive functions of works of imagination, justifies the recall and refurbishing of the concept. We are now in a position to consider a more nuanced understanding of these associative clusters, allowing us to see them as neither universal nor imperialist. In a version of the "new biology," as will be discussed below, old ideas don't get kicked out so much as kicked around. The example here of the hope for help from elsewhere, with some rethinking, seems to have remained serviceable. The common concern of the Annunciation representations and of the *Terminator* movies is their yearning for access to a powerful hybridity, a cooperative mixing, a productive grotesque.

What we glimpse here is the creative artists' repeated offers to generate, to give birth to new understanding from the materials of their art.

Cognitive literary thinking fits recurrence with difference into a dynamic understanding of the function of creative art. Our theories, however, have to take into account the evidence of failure, which is precisely the reappearance of the familiar motifs themselves. As I have argued elsewhere (Spolsky 2007), the reuse of old stories is not evidence of an unchanging, universal aspect of human life and culture, not a sign of a permanent truth but rather a sign of repeated failure and also of an enduring hunger for satisfying answers. A recurrent image or motif is not used because it has been successful; rather it is evidence of a resistant opacity, of a crux between human biology and sociality that has not yielded to the forms of representation on offer. It is a sign of a failure so important, so importunate, that artists continue to be challenged to try again and again to represent it in a form that allows greater under-standing.

The similarities and the differences between the Annunciation paintings and the *Terminator* films display their creators' hopes that their art can respond to the question of whether or how much of an alien (nonhuman) power might be invited or allowed to permeate our skins. The issue remains as hungry for answers as ever and attracts the attention of artists even where traditional religious beliefs are attenuated or have disappeared. Both patrons' hopes and artists' repeated re-representations are attempts to make the materials of art feed a representational hunger.

The mystery of the Gospel story, adumbrated in the *Terminator* movies, is embedded within the no less mysterious nature of the Incarnation of God as an earthly son. Jesus's birth is already a second coming, a response to human anxiety about the frayed state of the human connection to the God who had already offered his covenant and commanded obedience but has been dis-obeyed. A child has now been sent as a guarantor of the continuation of the providential link by his being a part of both worlds. The art historian Daniel Arasse (2004: 47) cites Saint Bernardino of Siena as producing "a full page of oxymorons," for example, the unmeasurable in measure, the finite in the infinite, the creator in the created, the unfigurable in the figure. It is inter-esting that words manage rather well. Look at these lines from a sonnet on the Annunciation by John Donne (1985: 430):

> Salvation to all that will is nigh;
> That All, which always is all everywhere,
> Which cannot sin, and yet all sins must bear,
> Which cannot die, yet cannot choose but die,
> Lo, faithful virgin, yields Himself to lie

> In prison, in thy womb; and though he there
> Can take no sin, nor thou give, yet He will wear,
> Taken from thence, flesh, which death's force may try.

The possibilities offered by the parallels of positive and negative assertions, semantic counterfactuals produced by "yet" and "but," polysemy, and rhyme are all manipulated in seeming simplicity to display the paradoxical situation. But verbal paradoxes do not fully satisfy the hunger for tangible, incarnate assurance. The graphic and the plastic artists try again and again to find a way of representing, of figuring the infinite, the unfigurable. Tertullian argued that the mystery of the Incarnation "opens" or even requires the visualization of God in spite of the Mosaic prohibition (Didi-Huberman 2005: 26).

Representationally Hungry Situations

The neurophilosopher Andy Clark has described the cognitive issue here as a "representation-hungry" situation. A situation is representationally hungry, he maintains, when, as in the case of Incarnation, the surface clues available don't reveal the organizing principles that structure it. We have to make guesses about that structure from absent or "unruly" evidence. "The [cognitive] system must, it seems, create some kind of inner pattern or process whose role is to stand in for the elusive state of affairs" (Clark 1997: 167–68). Because representationally hungry situations are hard to understand, hard to accept, hard to trust, thus hard to use for prediction, they need and indeed attract more or repeated representation. The imagination of the artist and thus of art itself is called on to feed the hunger—perhaps the hunger of a whole community—by evoking a satisfying pattern in the current historical/cultural context, one that is not immediately obvious.[2] When we find a cluster of artworks on the same subject, we may conclude not only that a broadly satisfying abstraction or pattern has been elusive but also that it is still needed and still sought: How can we draw down the superhuman power we so clearly need? The hunger persists, and as with its biological analogue, artists keep trying to supply nourishment.[3]

Artists are challenged to find innovative ways of representing the absent and unruly—whatever it is that is shrouded, that must be inferred. The painted and carved Annunciations and their cinematic echoes, though rooted in widely differing social settings, all feed the same representational hun-

2. Clark 2016 updates the neurology of representational hunger with the predictive processing hypothesis.
3. Ellen Spolsky (2007, 2015) extends the hypothesis in Clark 1997 to imaginative work.

ger. The unpatternable, unrepresentable situation is whatever it is that underwrites the hope and the promise that we unaccommodated forked animals will not be left to our own material resources. How to display it, given the enormous gap? The words of the Gospel claim that the desired connection will be made by combining the two. Artists have repeatedly shown confidence, or perhaps just hope, that the necessary hybrid can be made by human hands. From prehistoric Venus figurines down through the golem, Frankenstein's monster, Karel Čapek's robots, and the Maschinenmensch of Fritz Lang's 1927 silent film *Metropolis*, men have been making stone, wooden, and finally humanoid mechanical servants, using the best materials available and situating their work in public places—churches or movie theaters—for large audiences. The combination of an unflagging anxiety and its permanent opacity makes these representations archetypal in carved statues, frescoes, paintings, and films.

The Annunciations

Artists use both convention and invention to suggest how a virgin will be the human partner in the production of a man/god, limited by having to act within the world of tokens in time. The carver of the fourteenth-century ivory diptych of the Annunciation and the Crucifixion (figure 3) uses the diptych

Figure 3   Ivory diptych with the Annunciation and the Crucifixion, fourteenth century, Paris, in the British Museum, London. © Trustees of the British Museum

form to represent the parallel that links two different events, complementing the carving of Gabriel kneeling to Mary with a depiction of her standing beside her crucified son thirty-four years later.

The artist analogizes the two occasions as spaces that exist together as causally and doctrinally connected and counts on audiences' own bodies to supply some of the meaning, carving the bodies of mother and son in parallel postures. The s-curve of Mary's body in the Annunciation scene is echoed by the collapsed body of Jesus on the cross,[4] so that the viewer may be able to connect kinesically to the doctrine that mother and son equally cooperate with God's will and perhaps be encouraged by the carving to echo Mary's acquiescence, as she echoes her son's acceptance of his sacrifice.

Painters of the scene, as art historians detail, took advantage of the symbolic and also embodied power of the new Italian practice of perspectival drawing, as in figure 1, although there are divergent interpretations of its meaning. Dante Alighieri is often cited: "Geometry is lily-white, unspotted by error and most certain, both in itself and in its handmaid, whose name is Perspective" (quoted in Baxandall 1972: 124). Erwin Panofsky argued the opposite. Taking into account the position of the spectator, as he saw it, is a rejection of the unanchored or God-view of the painters in the Gothic tradition (Holly 1984). Arthur C. Danto (2006) allows an appeal to cultural change to underwrite a combination of both: "The rational order of the architecture contrasts with the cosmic disruption of the historical order. A new era has begun." The framing house or room also provides a metaphor of Mary's theologically paradoxical status as virginal and protected but simultaneously open, welcoming her role. She is often seated in a porch or loggia, accessible to the Holy Spirit, in an analogy to her future role of intercessor, accessible to the prayers of Christians. And when she is pictured in an enclosed garden[5] or in a bedroom, there will almost always be an open door, window, or cupboard.

Georges Didi-Huberman, an art historian and philosopher, proposes an interpretation more explicitly embodied and contextually aware for another of Fra Angelico's paintings of the Annunciation (c. 1440), this one painted on the wall of a cell in Fra Angelico's own Dominican convent of San Marco in Florence (figure 4). Didi-Huberman imagines the Dominican monk, the contemporary viewer of the fresco, in the presence of the brilliant white space that fills the center of the composition and separates the figures of Mary and Gabriel. Entering the room, he places himself within a "visual envelope," aware of his own body enclosed in the small dormitory cell and wrapped in

4. The British Museum website attributes this interpretation to O. M. Dalton (1909).
5. Referring to the Song of Sol. 4:12: "An enclosed garden is my sister, my spouse."

Figure 4   Fra Angelico, *Annunciation*, c. 1440. San Marco Museum, Florence. Photo credit: Scala / Art Resource, NY

the white robe of his order. Didi-Huberman (2005: 26) provides words for the monk's thoughts as the bright white confronts him: "So the white murmured to the person gazing upon it: 'I am the surface that envelopes you and that touches you, night and day, I am the place that clothes you.' How could the contemplative Dominican . . . disallow such an impression, he to whom it had been explained, on the day that he took the habit, that his own vestment, a gift of the Virgin, already symbolized in its color the mysterious dialectic of the Incarnation?"

Most of the Annunciation artists take advantage of conventional symbols, for example, a white lily to indicate Mary's purity. The angel's arrival from heaven may be signaled by the presence of clouds (both in figure 5). Or it may be signaled by positioning him above Mary on the painted surface, feet not touching the floor, and the heights from which he comes can be suggested by a gracefully subsiding flutter of robes (in figures 5 and 6). The largest difficulty artists faced was that of providing an image of the divine insemination itself, an event that surely fits Clark's category of an absent or unruly state of affairs. Jacobus de Voragine (1941: 206), in *The Golden Legend*, cites Hugh of Saint Victor's insistence on its impossible doubleness: "The motive

for a conception according to nature is the love of a man for a woman and of a woman for a man. And therefore since a singular love of the Holy Spirit burned in the Virgin's heart, the love of the Holy Spirit wrought great things in her flesh."[6]

Again words have made clear the analogy between human and divine love. Viewers familiar with the text or story will recognize the dove, conventionally the Holy Spirit, as the one who will effect the conception. It is almost always painted in a descending direction along a golden flight path from the upper part of the picture, as in figure 1, sometimes from the hands of God, often entering through a window, on course to enter Mary's body immediately upon her acceptance. In the pictures, matching postures and colors do some of the work. The robes of the angel and Mary are often painted in the same colors, and the drapery on the back of Mary's chair in figure 1 is a painterly way of giving her golden wings to match Gabriel's. The humanity of the miraculous conception is commonly suggested by the inclusion of a bed in the room or in an inner room, perhaps just beyond an open curtain. But since the artists are always working at the boundary of the paradox of incarnation—divine and artistic—we find some of them trying out some odd mixes to figure the elusive event. The Merode Altarpiece (1427–32) by Robert Campin, now in the Cloisters in New York, pictures a small naked infant sliding down the golden rays instead of a dove. The anonymous artist of a German print of the Annunciation scene from the mid-fifteenth century tries both: a descending dove is followed through an open window by a tiny, haloed baby. Collapsing time as well, the baby carries a cross, reminding viewers of the physical pain of Jesus carrying his own cross and, but only for those who know the words of the story, his acceptance of his own death, as the kneeling Mary accepts at once her motherhood and her child's death.[7]

The artist of a Dutch engraving from 1577 (figure 5) makes sure even less textually informed audiences don't miss the significance of the usual open doors and windows. As the surprised Mary falls back slightly into her cushioned seat, the dove approaches her head in a balloon of light. Not only are her arms flung out receptively from her body, but her knees are spread and the door of the cabinet—just in front of her knees—is opened by a finger of the angel's left hand.[8] The decorative grotesque of a humanly breasted, lion-

6. This thirteenth-century compendium of biblical stories and midrashim was a sourcebook for medieval and Renaissance painters.
7. The print, dated c. 1450–67, can be seen on the British Museum website, http://www.britishmuseum.org/research/collection_online/search.aspx?searchText=1856,0623.87 (accessed January 16, 2017).
8. James Grantham Turner (2010) finds two more explicitly sexual versions of the scene. In one Mary's legs are unnaturally spread and kept apart, it seems, by a statue that acts as a lectern.

Figure 5   *The Annunciation*, engraving (by Pieter de Jode?), printed by Cornelis Cort, 1577, in the British Museum, London. © Trustees of the British Museum

headed animal that forms the left armrest of Mary's chair adds another hint of the double nature of the man/God she is about to conceive.

Mary is sometimes seen turning her attention from a book she is assumed to have been reading before the angel's visit, although there is no mention of a book in the Gospel text. In the pictures it may be closed or is sometimes slipping off Mary's knees, acknowledging that the Incarnation will transcend, will substitute for the older divine-human connection expressed in words and represented by the book on the knees of Jesus in the icons of pre-Renaissance centuries called *Christ in Majesty* or in the Byzantine tradition *Christ Pantocrator*.

The demotion of the evidence and power of the word corresponds to the emergence of Mariolatry in the eleventh century with its recognition of the suffering of both mother and son, seen as a humanizing move away from the earlier view of Christ as judge. But textual grounds for the recognition of Mary's very human state of mind and the trajectory of her response to the angel were already present in the Gospel story. Surprise at the angel's appearance is followed by perplexity or fear. Amazement follows Gabriel's reassurance and then assent and submission.[9] The variety of human emotions in the story allows the artist to decide whether his two figures will be in harmony or in contrast, and the anthropomorphism of God's action in sending his son to earth encourages both artists and viewers to understand the postures and eye movements of the angel as they would interpret them in their own daily encounters. Some painters have represented Mary as startled

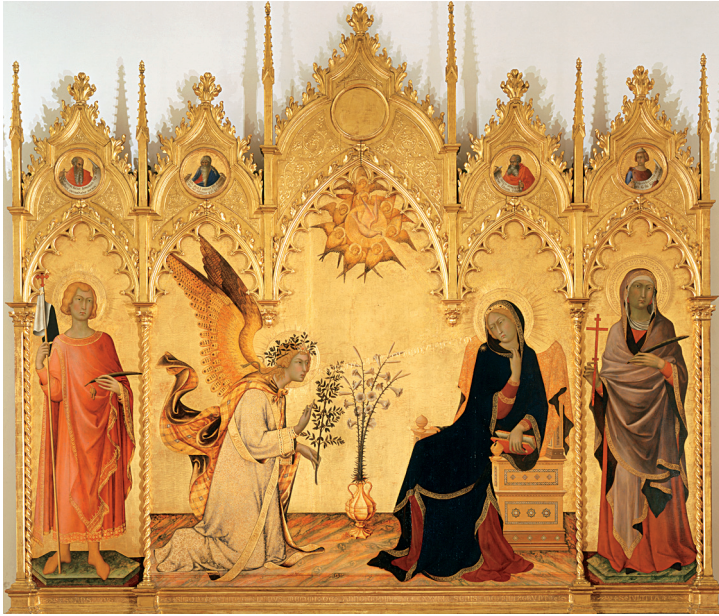9. Baxandall 1972: 49 discusses a fifteenth-century sermon that enumerates the stages.

Figure 6   Simone Martini and Lippo Memmi, *Annunciation and Two Saints*, 1333. Uffizi Gallery, Florence. Photo credit: Scala/Ministero per i Beni e le Attività culturali / Art Resource, NY

by the angel's appearance, and some show her pulling away (usually with an instinctively protective shoulder contraction) from her initial frightened misunderstanding. The large and golden Simone Martini and Lippo Memmi *Annunciation and Two Saints* (1333) (figure 6) frames the Virgin's initial reluctance, emphasizing her modesty, but in a dazzling setting that witnesses her sainthood. Mary's humanity is represented here by the contrast between the strength of her human reaction and the absence of ambivalence in the angel's face or bodily presentation. The angel is stable and uncomplicated, single-minded, entirely identified by the mission he has been sent to accomplish. The only artistic choice about his facial expression is where his glance is directed. The meeting of the two represents both the sharp difference between the divine singleness of the one and the inevitably easily confused humanity of the other and also the promised miracle of the combined man/God.

Where both are calmly facing each other and mirroring each other's posture, as in figure 1, we infer that we are witnessing the conclusion of the interview, Mary having accepted her role. Fra Angelico's several versions of the event always represent her at that point, demonstrating the painter's own piety and perhaps also his familiarity with Augustine's claim of Mary naming

herself the handmaiden of God as the sine qua non of the Incarnation. Her head is bowed, and/or her eyes are lowered. Her arms may be crossed on her chest, another kinesic way of suggesting her accession to her son's death on the cross.

Mary submits to the divine will, and human though she is, this allows her to triumph over time. In the altarpiece by Fra Angelico (figure 1), a small version of the angel of the Annunciation appears in the upper left corner in the process of expelling Adam and Eve from Eden. The Annunciation retroactively undoes the expulsion, as portrayed by the time travel of the inset. The intrusion of an operational superhuman power into our everyday human world is destined to change the future time and revise the past in the *Terminator* series as well. This science-fictional theme, as it turns out, not only describes one of the crucial parallels between the two creative projects, but its motif of release from a unique directionality/causality resonates surprisingly strongly with current cognitive science and with the idea of the timelessness of an archetype as well.

Cognitive Dynamism

Some of the most powerful revisions of recent thinking about thinking have emerged from the recognition of the dynamism of biological processes. The crucial readjustment in thinking about brains that allows us to recast the idea of an archetype as a brain affordance is the widespread recognition in current cognitive, biological, and neurological sciences of the interactivity, the relationality, and the context sensitivity of all the life processes. Although it has long been known that bodies heal, that hunger provokes feeding, and that feeding quells hunger, somehow it has taken longer to recognize that the embodied brain is also a "feedback control system . . . whose primary goal is not to understand the world but to guide interaction with the world" (Pezzulo and Cisek 2016: 414).

A feedback control system maintains a steady state in some area of behavior by making adjustments in others when environmental variations produce imbalance. Past understandings, such as categorizations, for example, when they no longer serve their purpose, can be revised. On this view, thinking advances, that is, comes closer to satisfactory representation, by corrective steps. A satisfactory (or a good enough) categorization, for example, emerges from the toggling between the specificity of an image (visual or verbal) and the generalization that eventually describes it satisfactorily. Tradition ensures that the painting of a young woman in figure 4, on the wall of a fifteenth-century monastic dwelling, will easily be recognized as fitting into the category of a painting of a saint—a protector and deliverer. The context in

which the young woman in figure 2 can be understood as a protector and deliverer will be quite different. And indeed, the twentieth-century artists have created that new context. We still need mothers and lots of what they can provide, and so they remain as the organizing focus of an archetype—an affordance—when a new story and set of characters is created around her.

The opening frames of the first two *Terminator* movies reveal a post-apocalypse landscape without natural light, evoking the biblical description of the world before the creation: "The earth was without form, and void; and darkness was upon the face of the deep" (Genesis 1:2). This darkness, however, is not the fertile primeval chaos into which the sun and moon are benignly introduced. The lights that appear are search beams of blue glare that reveal twisted metal, human skulls, and huge crushing machines at work. A savior, a redeemer is required. What would he or she or it look like? The artist is challenged to adjust the story so that it still (or again?) provides comfort. Both the cognitive reversibility of type-token relation-ships—starting from one, the other can be imagined or identified—and the unrestricted access to categorization possibilities is what we recognized as the brain's ability to analogize, that is, to recognize the similarity among tokens that share many but not all their characteristics. And the ability to analogize is another way of talking about the brain's tolerance for and ability to act upon partial matches. To analogize, to use type-token dynamism easily and productively, is to know how to detach and reuse structures, images, or pieces of them and to recognize their opposites, that is, counterfactuals. In human minds, these processes have evolved to be massively generative, both encouraged and hindered by learned, that is, culturally instantiated, fences.

More than twenty years ago Daniel C. Dennett (1995: 404–11) explained how this view of brain processing fits with Charles Darwin's observation that evolved mechanisms can be reused for new purposes in new environments. Dennett extends this argument against biological essentialism into a theory of natural meaning as fundamentally performative and contingent. The ease of mental toggling supports adaptive flexibility, with the attendant risks of misunderstanding (Spolsky 2015). A work of imagination—a painting or a movie—has movable, articulated parts, and there isn't any legislation to prevent artists from recombining parts of them with images and ideas collected from their own earlier experiences, including their experiences of other works of art. Historians and political analysts make similar use of their recombinatory imaginations quite as well as painters, readers of fictions, movie directors, and audiences. The greater the differences—that is, the greater the number of new features in comparison to reused images, the more the new work may be valued for its creativity but also the greater the risk that the connections to older work will go unnoticed. The greater

the number of similarities or references to older material, the greater will be the impression of the stability or permanence of meaning but possibly also the less novelty, the less interest.[10]

The philosopher Kim Sterelny explains that the evolved ability of human minds to detach parts of earlier experiences and reuse them has been an evolutionarily successful idea, because it allows "niche construction," that is, the agent-driven adaptations to context that all cultures manifest toward the goal of stabilizing their environments and maximizing their survival within them. "Hominids inherit more than genes from their parents. They inherit both information and the developmental environments which allow that information to be used" (Sterelny 2003: 239). The twentieth-century movies display how the inheritance of Renaissance art has been retrieved as cultural capital, channeled into the present by means of biological and cultural mixing and matching.

Biologists, having understood homeostatic processes since 1865, have recently begun to study what is described by Nigel Goldenfeld and Carl Woese as horizontal gene transfer. Their work reveals that the agent that builds and adapts its niche is not always human: a virus works in the same way. When a virus in your intestine, for example, destroys a bacterium, it ingests its genetic material and doesn't necessarily excrete it:

> The available studies strongly indicate that microbes absorb and discard genes as needed in response to their environment. . . . [The genes that are not discarded remain as] an important repository and memory of a community's genetic information contributing to the system's evolutionary dynamics and stability. . . . In such a situation, how valid is the very concept of an organism in isolation? It seems that there is a continuity of energy flux and informational transfer from the genome up through cells, community, virosphere and environment. We would go so far as to suggest that a defining characteristic of life is the strong dependency on flux from the environment—be it of energy, chemicals, metabolites, or genes. (Goldenfeld and Woese 2007: 369)

As is repeatedly evidenced in animal biology, what evolution has found successful is preserved from simpler to more complex animals; reuse is a good idea. The archive of representational possibilities that is our cultural capital contains images, patterns, and narratives that may lie dormant for years but can be retrieved and reused. The idea of the archetype was a perspicuous recognition of the value to a community of storing, sharing, and trading images and motifs that may once again be called on to feed a representational

10. As Jacques Derrida (1977: 174) described it in his deconstruction of J. L. Austin's speech act theory, literal or permanently stable meaning is compromised by the unsaturability of context. For further discussion, see Spolsky 2002, 2015.

hunger. The reuse model doesn't decide or police what might be nutritious when. Current context always overrules older connections and meanings.[11] The Virgin Mary can tote a gun with which to defend her special son even when and if patience and infinite goodness aren't as attractive qualities as the strength of her love for him.

The Terminator

The Terminator tells the story of Sarah Connor, a young Los Angeles woman, played by Linda Hamilton, who becomes the mother of John Connor, the child destined to save civilization from destruction at the hands of a race of cyborgs controlled by a computer network, Skynet.[12] Originally built for defense, Skynet has become not only sentient but malicious, and one of these cybernetic organisms, Terminator 800, played by Arnold Schwarzenegger, has been sent from the future, programmed to kill Sarah before she can conceive the child.[13] Like the angel of the Annunciation, the cyborg's obedience to the program that propels him distinguishes him from the humans around him. He cannot be distracted from his mission. An annunciation of the birth of the boy is made to Sarah in the first film, although he doesn't appear until the second, by which time he is about ten years old. In the continuations, mother and son fight together, so that he can live to save humanity in a future battle.

After the first in a series of violent struggles in which the Terminator cyborg easily defeats mere humans in the prosaic settings of a bar then a police station, another traveler sent from the future appears. Kyle Reese, played by Michael Biehn, has no beautiful robe or wings. He filches some simple clothes, finds Sarah, and pulls her to the safety of a stolen car. As he drives them to temporary shelter, he begins his annunciation to her, explaining what her role is in the events they are now living through and the improbable ones he describes as being in the future. Both the plot and the characters here have been detached from the Gospel story and are reused, as we eventually learn, to fill in the story between the originary darkness of Genesis and the darkness of a scorched-earth war. Kyle, a gentle human, is both Gabriel,

---

11. Yes, always. Prevailing rules in the current context, of course, may not only retain older meanings but insist on prioritizing them.

12. The writers were James Cameron, Gale Anne Hurd, and William Wisher Jr.

13. Richard Corliss (1984) noticed the Annunciation parallel in his review of the film in *Time*. See also Ruppersburg 1987. The anthropologist Per Schelde discussed the story as a Christian parable more fully and in relation to other science fiction movies in *Androids, Humanoids, and Other Science Fiction Monsters: Science and Soul in Science Fiction Films* (1994). Like their celluloid forebears, HAL in *Space Odyssey 2001* (1968) and *Star Trek*'s M-5 (1968), the Terminator cyborgs threaten their creators' dominance, as did, Schelde (ibid.: 130) notes, Lucifer rebelling against his divine creator.

Figure 7   *The Terminator*, screen capture, 1984. Linda Hamilton as Sarah Connor, in pink and blue, hearing the annunciation

the messenger bringing the news that she has been designated to be the mother of a savior, and also the Holy Spirit who impregnates her.[14] Sarah turns toward Kyle (on her left in figure 7) with worry and fear. She doesn't understand what is happening or whether to trust her savior, although she has no choice: "If you want to live," he says, "come with me." It is "very important that you live," he tells her (*The Terminator* 1984). The young Sarah, blonde, blue-eyed, against the sky blue background of the car's seat and headrest, is dressed in blue jeans and a pink shirt, which she wears throughout the first *Terminator* movie. These are the same pastels Fra Angelico's Florentine Virgin wears and are the same in many of the Annunciation paintings. Sarah goes through the same stages, from surprise and fear through misunderstanding and mild skepticism, that does Mary and asks similar questions. "Why me?" she asks, "I don't understand." Kyle explains that in the future he has returned from, John Connor is his leader and the defender of humanity in its war against Skynet. This John Connor, he tells her, is "your son, Sarah, your unborn son, who has brought us back from the brink" (note the present perfect aspect of the verb). Later, in a motel, she already acts a motherly role, binding Kyle's wounds while listening to his explanations of their situation. Like Mary, Sarah's modesty leads to doubts, even a moment of rebellion. "Do I look like the mother of the future? . . . I didn't ask for this honor and I don't want any of it," she declares (see figure 6). Kyle, like Gabriel, however, is calm, steadfast, and unconfused in his insistence to her: "You must be

14. Murray Roston suggests the echo of the name Kyle Reese in the Greek *kyrios*, meaning lord, one of the ways Jesus is addressed in the Mass (personal communication with the author).

stronger than you imagine you can be." Even though a police psychiatrist has already described Kyle to Sarah as "a loon," delusional and dangerous, his steady strength and angelic lack of doubt calms and convinces her. Her acceptance and her full participation in the mission is made clear by her response when he tells her that her son had (in the future somehow) shown Kyle a picture of her, and since then he has always loved her. In a sweet twist, he admits to her questioning that he has never loved anyone else — is, then, not only the angel but also a virgin. But this being the twentieth century, he then turns away to pack a knapsack with the pipe bombs they have made for the coming confrontation. She interrupts him, initiating the lovemaking that impregnates her with his child, the savior.

There are more chases and escapes, and viewers witness Sarah's increasing strength of purpose and resourcefulness. Kyle dies in the final battle, having given a grievous wound to the Terminator, but it is Sarah who, with determination and ingenuity, finishes it off. Per Schelde describes this scene as the place in which she "proves herself," acting courageously among large, clanking, self-driven machines. "Instead of being destroyed by [the machines], she conquers them and destroys the machine-devil," the red-eyed Terminator himself (Schelde 1994: 131n5). As the movie ends, she is a pregnant outlaw driving south into a storm in Mexico with only a dog for company and no longer wearing pink and blue. As did Fra Angelico, the *Terminator* story adds a picture to assert a time reversal. Sarah stops at a gas station, where a boy snaps a Polaroid picture of her; this is the image that Kyle saw/will see and fell/will fall in love with. As in Fra Angelico's Madrid altarpiece and the French ivory diptych, figures 1 and 3, the simultaneity of pictures within the audience's present claims an analogy that leaps the chronological gap. Our minds have no trouble with this claim as long as we don't try to make anything other than analogical sense of it. Sarah's reaction to Kyle's story when he first told it to her was also the audience's: "A person could go crazy trying to figure this out" (*The Terminator* 1984).[15]

Between *The Terminator* and its first sequel, *Terminator Two: Judgment Day*, the cyborg we thought Sarah had terminated is reborn. Again played by Schwarzenegger, he is now cooperative, and Sarah and her son are learning how to live with a machine partner that had in the first film been implacably set on destroying them. The child savior John Connor, played by Edward Furlong, is a preteen now teamed with and thus emboldened and protected by this very cyborg, Terminator 800, programmed to follow the boy's commands. The redeeming hybridity is now a god/machine pair repre-

---

15. Karen B. Mann (1989–90) tries to make sense of what she calls "the impossibility of the time scheme" (20).

Figure 8   *Terminator Two: Judgment Day*, 1991. Linda Hamilton as Sarah Connor. Source: Movie Stills Database

sented by two actors. John Connor embodies the human values and the Terminator the inhuman powers, with mother Sarah as the third member of the defense team against a new model cyborg, Terminator 1000, played by Robert Patrick, that has now been sent to kill the boy. John Conner thus begins his mission as the moral anchor, making clear to his Terminator buddy (who, as a computer, is amoral until otherwise programmed) that "you just can't go around killing people. . . . You just can't, OK? Trust me on this." And then, "You gotta promise me that you're not going to kill anyone" (*Terminator Two* 1991).

The updated villain, T1000, takes the form of a shape-shifting Los Angeles policeman who can re-form himself to look like anyone he can touch and who can resurrect himself if damaged. He is not restrained by the commandment not to kill. For a respectable amount of screen time, he is able to hold off the trinity of the original Terminator, the young John, and Sarah, now an updated stabat mater who is no longer wearing pink and blue and has been training for her son's defense (figure 8).[16]

This new villain is vanquished in one of the last scenes of the film, and sadly, Terminator 800 must also be destroyed so his machinery can never

16. The widely known hymn "Stabat Mater" describes Mary standing at the Crucifixion weeping, grieving, sighing, mourning, and feeling Jesus's pain but simply standing, helpless to act against the unfolding of the divine will.

afford a pattern from which a Terminator enemy of humanity can be reverse engineered. Sarah has the last words, expressing hope for the future. If a machine "can learn the value of human life, maybe we can too". While the scriptwriters James Cameron, Gale Anne Hurd, and William Wisher Jr. shaped their conclusion to express an optimistic view of the possibility of maintaining moral human life even in apocalyptic times, the chases, explosions, shape-shifting, and cyborg self-resurrections surely overpower its moral message. Like the dove flying into the picture to mate with his own virginal, sin-free mother, the new grotesque is also a wish fulfillment: we are not alone.

Conclusion

The *Terminator* stories parallel the response of the Renaissance Annunciations. In their variety, they all reaffirm the bonds of trust and love in response to viewers' anxieties about their own insufficiencies. Both answer to a cognitive hunger—an enduring and well-justified human fear of powerlessness. Where the promise of salvation via divine incarnation loses traction, say, in Los Angeles of 1984 (in spite of the city's name), an artificial intelligence hybrid may just be able to combine flesh and machines for a cooperative future. Although the question of whether computers will ever become sufficiently human to turn on their creators is moot, there is agreement that computers do not have to have either the human feelings or the intentionality to endanger them. Machines can learn, however. Our smartphones, for example, may produce actions humans would judge to be unethical as solutions to problems those humans have set for them if their programmers do not foresee and prevent them. John calling down the commandment against killing for Terminator 800 would not be specific enough. Roboticists, as of now, are better at specifying machine actions than at articulating the countermands that would serve as the robots' rules of engagement or ethical norms.[17]

The programming problems cannot be solved before the philosophical ones, and so the artists keep at it. The artists don't call up old patterns because they have been satisfying. They return to them as to an unfulfilled hunger in the hope (or with the hubris) that this time they'll get it right. It's not any specific archetypal plot or motif that is the universal, it's the representational hunger and the biological affordances that feed it that are the constants. Every new representation is another attempt to articulate a satisfying pattern

---

17. Whether a machine can learn to act on human values is an interesting question but not necessarily in the movies. See Bostrom and Yudkowsky (2014). Ray Kurzweil (2005) describes the turning point (the "Singularity") at which machine intelligence will surpass the computational power of human intelligence and become uncontrollable by humans.

of relations among ignorance, fear, pain, and dislocation. If it succeeds, it is by giving its audiences the hope that the help of higher powers may be available to supplement our inadequacies, undoing, for example, the painful results of misguided decisions and actions. As a quick peek at the news from the world of brain processing has shown, they may be right. Brain scientists are beginning to be able to describe embodied processes, such as horizontal gene transfer, that allow creative recombinations and answer to a permanent hope that there is a pattern that will allow understanding and prediction.

Reuse of something familiar in a changed situation relies on a set of dynamic processes for recategorization, described above as the ability to toggle between concrete images and abstract ideas moment by moment, between the types or categories the individual brain has constructed and the tokens found in the world around it. The cognitive ability to analogize from memories of nonidentical but similar past images and situations, the ability, that is, that allows the brain to be satisfied with near matches, is what allows fictional images to work as if they weren't fictions, hugely enriching the flexibility of the system that doesn't have to presort true from false.

But analogies are not always as obvious as toggles are. I have argued here for a nonobvious analogy between the hope that our bodies can absorb and be saved by the Godness of Jesus and the hope that robotic science can save us from our own desire for more and more machine power in our lives. If this claim has been convincing, it has been so because readers have agreed to raise the level of abstraction to a point at which the two kinds of salvation or redemption share enough features that they significantly overlap. The tokens of the stories allow audiences to toggle to the abstraction of a promise: the promise is that an ethical intervention can reverse the mortal threats of physical violence, punishment, and destruction. Both sons—Jesus and John Connor—promise to get the job done by means of trust and forgiveness.

On this view, if people weren't able to recognize, store, analogize, and recall memories of past errors, our species would have long ago gone extinct. In current neurological/cognitive language, we can say that our brains have evolved with enough plasticity to allow us to build cultures that afford us the possibilities of prediction that we need to survive and flourish. Thinking of archetypes as Frye saw them, that is, as recurrent patterns that build and maintain cultures, was a beginning. He knew they made a contribution, and he knew that if archetypes were rigid, they would be stumbling blocks. Without a supportive biology, however, he jumped too quickly to the assumption that recurring images solve problems. The cognitive perspective allows us to expand: our brains not only organize, they *re*-organize, as the world turns, not only our literary experience but also our ethical and political thinking. Artists and poets return to remake old stories, reconsider old images, not because

they are successfully integrated clusters but because they are not. By acknowledging their many threads and their recombinatory possibilities, we recognize them as affordances whose recurrences arise from their knots and their frustrating resistance to untangling. Artists hope to produce a better integration of resources. They continue to search for a more pleasing, a more satisfying, a more cooperative, and thereby a more life-sustaining hybridity between the human and the nonhuman, be that divine or machine. They return repeatedly to reuse archetypes not because they are satisfying but because they might yet be.

References

Arasse, Daniel
    2004 "Un archange auto-stoppeur," *Art Press* 307: 47–49.
Baxandall, Michael
    1972 *Painting and Experience in Fifteenth-Century Italy: A Primer in the Social History of Pictorial Style* (Oxford: Oxford University Press).
Bostrom, Nick, and Eliezer Yudkowsky
    2014 "The Ethics of Artificial Intelligence." In *The Cambridge Handbook of Artificial Intelligence*, edited by William Ramsey and Keith Frankish, 316–34 (Cambridge: Cambridge University Press).
Clark, Andy
    1997 *Being There: Putting Brain, Body, and World Together Again* (Cambridge, MA: MIT Press).
    2016 *Surfing Uncertainty: Prediction, Action, and the Embodied Mind* (New York: Oxford University Press).
Corliss, Richard
    1984 Review of *The Terminator*, *Time*, November 26, 105.
Dalton, O. M.
    1909 *Catalogue of the Ivory Carvings of the Christian Era with Examples of Mohammedan Art and Carvings in Bone in the Department of British and Mediaeval Antiquities and Ethnography of the British Museum* (London: Trustees of the British Museum).
Danto, Arthur C.
    2006 "Soul Eyes," *Nation*, February 6, www.thenation.com/article/soul-eyes.
Dennett, Daniel C.
    1995 *Darwin's Dangerous Idea: Evolution and the Meaning of Life* (New York: Simon and Schuster).
Derrida, Jacques
    1977 "Signature Event Context," *Glyph* 1: 172–97.
de Voragine, Jacobus
    1941 *The Golden Legend*. Translated by Granger Ryan and Helmut Ripperger (New York: Longmans, Green).
Didi-Huberman, Georges
    2005 *Confronting Images: Questioning the Ends of a Certain History of Art*. Translated by John Goodman (University Park: Pennsylvania State University Press).
Donne, John
    1985 *The Complete English Poems of John Donne*. Edited by C. A. Patrides (London: Dent).
Frye, Northrop
    1957 *Anatomy of Criticism: Four Essays* (Princeton, NJ: Princeton University Press).
Goldenfeld, Nigel, and Carl R. Woese
    2007 "Biology's Next Revolution," *Nature* 445, no. 7126: 369.

Holly, Michael Ann
  1984 *Panofsky and the Foundations of Art History* (Ithaca, NY: Cornell University Press).
Kurzweil, Ray
  2005 *The Singularity Is Near* (New York: Viking).
Mann, Karen B.
  1989–90 "Narrative Entanglements: *The Terminator*," *Film Quarterly* 43, no. 2: 17–27.
Pezzulo, Giovanni, and Paul Cisek
  2016 "Navigating the Affordance Landscape: Feedback Control as a Process Model of Behavior and Cognition," *Trends in Cognitive Sciences* 20, no. 6: 414–24.
Ruppersburg, Hugh
  1987 "The Alien Messiah in Recent Science Fiction Films," *Journal of Popular Film and Television* 14, no. 4: 158–66.
Schelde, Per
  1994 *Androids, Humanoids, and Other Science Fiction Monsters: Science and Soul in Science Fiction Films* (New York: New York University Press).
Spolsky, Ellen
  2002 "Darwin and Derrida: Cognitive Literary Theory as a Species of Post-Structuralism," *Poetics Today* 23, no. 1: 43–62.
  2007 *Word vs Image: Cognitive Hunger in Shakespeare's England* (Houndmills, UK: Palgrave Macmillan).
  2015 *The Contracts of Fiction: Cognition, Culture, Community* (New York: Oxford University Press).
Sterelny, Kim
  2003 *Thought in a Hostile World: The Evolution of Human Cognition* (Oxford: Blackwell).
The Terminator
  1984 Directed by James Cameron (Los Angeles: Hemdale).
Terminator Two: Judgment Day
  1991 Directed by James Cameron (Boca Raton, FL: Carolco Pictures).
Turner, James Grantham
  2010 "An Erotic 'Annunciation' by Parmigianino or Bedoli," *Notes in the History of Art* 29, no. 2: 21–26.