

## Metamorphosis and Mind

### Cognitive Explorations of the Grotesque in Early Christian Literature

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The word “grotesque” did not exist in antiquity. It has been coined from the Italian *grotto* after the excavation of Nero’s Domus Aurea in the fifteenth century. The walls of this palace were decorated with “graceful fantasies, anatomical impossibilities, extraordinary excrescences, human heads and torsos.”<sup>1</sup> In modern literary studies, the concept of the grotesque was introduced by Mikhail Bakhtin (1895–1975).<sup>2</sup> Bakhtin especially explored this subject in his study of the art of François Rabelais (*ca.* 1494–1553), which appeared in English as *Rabelais and his World*. In this book, Bakhtin introduced the term “grotesque realism” to identify a peculiar aesthetic concept of the human body, which he found in Rabelais and traced back to folk culture.<sup>3</sup> Grotesque realism shows the body without clear boundaries, focusing on the apertures, convexities and offshoots. There is an emphasis on activities in which the body exceeds its limits, such as copulation, pregnancy, childbirth, agony, eating, drinking, and defecation. The grotesque body is a phenomenon in transformation, in an as yet unfinished metamorphosis of death, birth, growth, and becoming.

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<sup>1</sup> A. K. Robertson, *The Grotesque Interface* (Frankfurt am Main: Vervuert/Iberoamericana, 1996), 10.

<sup>2</sup> М. Бахтин, *Творчество Франсуа Рабле и народная культура средневековья и ренессанса* (Москва: Художественная литература, 1965); English translation: *Rabelais and His World*, trans. H. Iswolsky (Cambridge, Mass.: M.I.T. Press, 1968); cf. R. M. Berrong, *Rabelais and Bakhtin: Popular Culture in Gargantua and Pantagruel* (Lincoln: University of Nebraska Press, 1986); A. Simons, “Creating New Images of Bakhtin,” in *Studies in Eastern European Thought* 49 (1997), 305–17.

<sup>3</sup> Bakhtin, *Rabelais and His World*, 18.

## 1. Uses of the grotesque in early Christian literature

In my forthcoming monograph I deal with three different domains where early Christian literature uses grotesque imagery:<sup>4</sup> the grotesque in hell, in social rhetoric, and in the realm of the divine. I will give a few examples from each domain.

### 1.1. Hell

The central chapters of the *Apocalypse of Peter*, dating to the late first or early second century,<sup>5</sup> describe the punishments of different sins in the underworld.<sup>6</sup> At this place I can only give a selection, focusing on the cases that are most relevant for my present contribution. People who blasphemed “the way of righteousness” are hanged from the tongue and burnt by fire (*ApPt* 22 A; 7.1–2 E).<sup>7</sup> Other sinners are hanged up from different body parts, such as hair or legs. Women who conceived children outside marriage and procured abortion sit in a pool of discharge and excrement, with their eyes burned by flames coming from their children (26 A; 8.1–4 E).<sup>8</sup> As for parents who committed infanticide, flash-eating animals come forth from the mothers’ rotten milk and torment the parents

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<sup>4</sup> I. Czachesz, *The Grotesque Body in Early Christian Literature: Hell, Scatology, and Metamorphosis*, Habilitationsschrift (Heidelberg, 2007).

<sup>5</sup> J. N. Bremmer and I. Czachesz, eds., *The Apocalypse of Peter* (Leuven: Peeters, 2003).

<sup>6</sup> I. Czachesz, “The Grotesque Body in the Apocalypse of Peter,” in Bremmer and Czachesz, *The Apocalypse of Peter*, 108–26.

<sup>7</sup> ‘A’ and ‘E’ stand for the Greek Akhmim Codex and the Ethiopic text, respectively.

<sup>8</sup> The Greek text is fragmentary; for different emendations, see E. Klostermann, *Apocrypha I. Reste des Petrus-evangeliums, der Petrusapokalypse und des Kerygmata Petri* (Berlin: DeGruyter, 1933), 11, notes. The Ethiopic has infanticide as a separate sin. Cf. M. Himmelfarb, *Tours of Hell: An Apocalyptic Form in Jewish and Christian Literature* (Philadelphia: University of Pennsylvania Press, 1983), 96–97.

(8.5–10 E). Those who persecuted and gave over “the righteous ones” sit in a dark place, are burned waist-high, tortured by evil spirits, and their innards are eaten by worms (27 A; 9.1–2 E). Various other sinners sit in burning mud and bodily discharges, such as blood, pus, and excrement. Those who blasphemed and spoke ill of “the way of righteousness” bite their lips and get fiery rods in their eyes (28 A; 9.3 E). False witnesses bite their tongues and have burning flames in their mouths (29 A; 9.4 E). They who trusted their riches, did not have mercy on the orphans and widows, and were ignorant of God’s commandments, are wearing rags and are driven on sharp and fiery stones (30 A; 9.5–7 E). Men behaving like women and women having intercourse with each other endlessly throw themselves into an abyss (32 A; 10.2–4 E).<sup>9</sup> Men and women, whose sin is unspecified, hit each other with fiery rods.<sup>10</sup> They who did not obey their parents slip down from a fiery place repeatedly; they are also hanged and tormented by flesh-eating birds (11.1–5 E).<sup>11</sup> Slaves who did not obey their masters chew their tongues, and are burned in eternal fire (11.8–9 E). They who did charity and regarded themselves righteous are blind and deaf, pushing each other onto live coal (12.1–3 E).

The fourth century *Apocalypse of Paul*, better known by its Latin title as the *Visio Pauli*, gives us a somewhat different list of sins and punishments.<sup>12</sup> Besides omitting some of the sins and tortures, it contains a number of new ones, as well: piercing of the bowels with hooks (dragging the entrails

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<sup>9</sup> One of the Ethiopic manuscripts adds idolatry. Both Ethiopic mss. contain a remark on “those who cut their flesh,” cf. D. D. Buchholz, *Your eyes will be opened: a study of the Greek (Ethiopic) Apocalypse of Peter* (Atlanta: Scholars Press, 1984), 212–15. For cultic tattooing and cutting in antiquity, see D. E. Aune, *Revelation 6–16* (Nashville: Nelson, 1997), 465–69; W. Burkert, *Ancient Mystery Cults* (Cambridge, Mass.: Harvard University Press, 1987), 81.

<sup>10</sup> This group is mentioned only in the Akhmim text. The sins are not specified.

<sup>11</sup> Cf. the punishment of the homosexuals above.

<sup>12</sup> J. N. Bremmer and I. Czachesz (eds.), *The Visio Pauli and the Gnostic Apocalypse of Paul* (Leuven: Peeters, 2007), with discussion of former scholarship; I. Czachesz, “Torture in Hell and Reality: The Visio Pauli,” in Bremmer and Czachesz, *The Visio Pauli*, 130–43.

through the mouth in the Coptic version),<sup>13</sup> hitting people with stones and wounding the face, worms proceeding from the mouth and nostrils, cutting the lips and the tongue with a fiery razor, wearing burning chains in the neck, sitting in ice and snow, sitting in a pit of pitch and sulphur, or wearing clothes drawn with these substances, and the closing of the nostrils. Previously I have suggested various possible sources of these images:<sup>14</sup> they might have had their origin in real life, particularly in the Roman practice of torture (possibly as applied to the martyrs), Jewish or Greek literary tradition, or they may have been invented by the early Christian authors. Yet our concern is with the question of why they (and not other punishments) were recorded in these lists, and what their function was in early Christian discourse.

Other grotesque images are connected with people's lives in this world, rather than with their fate after death. In the *Acts of Thomas* 30–8, the apostle finds the corpse of a handsome young man beside the road, and begins to pray. Soon a huge serpent or dragon (δράκων, which is also black according to the Syriac text) comes forth from the bushes, and recounts how he killed the man, because he made love to a beautiful woman whom the dragon loved. The apostle then converses at length with the dragon and finally commands him to suck out the poison from the corpse. The serpent obeys and bursts up, the apostle in turn raises the young man, who becomes his follower. In another episode (*ATH* 42–50), a woman tells Thomas about her encounter with a “troubled and disturbed” young man, who came up to her after she left the bath, and asked her to sleep with him. She refused him, but he appeared to her in dream and had sexual intercourse with her. This has been going on for a long time, until she met the apostle. The mysterious lover turns out to be a demon, who negotiates for a while with the apostle, but then leaves his “fair wife.” In a third episode (*ATH* 62–81), mother and daughter are attacked by a man and a boy on the street: the men are black, their teeth are like milk and their lips like soot. From that day, the two women are struck on the floor time to time unexpectedly. The apostle exorcises them and the demon in the mother turns out to be the one he expelled in chapters

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<sup>13</sup> E. A. W. Budge, *Miscellaneous Coptic Texts in the Dialect of Upper Egypt* (London: British Museum, 1915). This text is not identical with the *Apocalypse of Paul* in Nag Hammadi Codex V.

<sup>14</sup> Czachesz, “Torture.”

42–50. Stories of demonic possession are frequent in the Gospels and other early Christian literature, yet the grotesque representations of the demons set these stories apart from most comparable narratives.

### 1.2. Social rhetoric

In a second group of texts, grotesque images are used to mock and ridicule the adversaries of early Christians. Many times we read about grotesque labels attached to Jesus and his followers. Jesus is called “a glutton and a drunkard” (Matthew 9:11/Luke 7:34); Paul “a plague” or “pestilence” (λοιμός, Acts 24:5–6), “sorcerer” and “deceiver” (*Acts of Peter* 4); Peter a “busybody” or “troublemaker” (περίεργος *Acts of Peter* 34). Yet most of the time it is the Christians who use such labels, calling Pharisees and Sadducees in the Gospels “brood of vipers” (Matthew 3:7; 23:32), Herod Antipas a “fox” (Lk 13:32), Simon magus “the foulest (*pestilentissimus*) of men” (*Acts of Peter* 14) and “abomination” (*horrendum*, *Acts of Peter* 14). The *Epistle to Titus* 1:12 quotes Epimenides’ hexameter that “Cretans are always liars, vicious brutes (κακὰ θηρία), lazy gluttons (lit. ‘bellies’).”

The most powerful applications of the grotesque in the domain of social rhetoric are found in narratives that employ scatological humour, so typical of Greek comedy and the popular *mimus*,<sup>15</sup> to ridicule the antagonists of the Christian narratives. In the *Acts of Peter*, the senator Marcellus is misled by the tricks of Simon magus, whom he even entertains in his own house. Upon the arrival and mighty miracles of Peter (e.g. raising a smoked tuna fish), however, Marcellus turns against his

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<sup>15</sup> J. H. Henderson, *The Maculate Muse: Obscene Language in Attic Comedy* (New Haven: Yale University Press, 1974) 187–203; E. Segal, *Roman Laughter: The Comedy of Plautus* (New York: Oxford University Press, 1987, 2<sup>nd</sup> edition); H. Wiemken, *Der griechische Mimus: Dokumente zur Geschichte des antiken Volkstheaters* (Bremen: Schöningh, 1972). Cf. K. J. Reckford, *Aristophanes’ Old-and-new Comedy* (Chapel Hill, N. C.: University of North Carolina Press, 1987); D. F. Harvey and J. M. Wilkins, *The Rivals of Aristophanes: Studies in Athenian Old Comedy* (London: Duckworth and The Classical Press of Wales, 2000); I. C. Storey, *Eupolis: Poet of Old Comedy* (New York: Oxford University Press, 2003).

teacher, rushes into his house and throws curses at his head (*Acts of Peter* 14). Then the servants take Simon, beat him with rods and stones, and complete the treatment by emptying chamber pots (*vasa stercoribus plena*) onto his head. In the *Passion of Andrew*, the Christians of Patras assemble in the palace of the proconsul Aegeates. As they are celebrating the day of the Lord in the room of Maximilla, wife of the proconsul, servants report the lord of the house is coming home. Andrew prays and asks the Lord Jesus that everyone could leave before the proconsul enters the room. And behold, Aegeates is immediately struck with diarrhea (“he was troubled by his bowels,” ὑπὸ τῆς γαστρὸς ὠχλήτη), asks for a lavatory seat, and sits on it while the brothers, made invisible by Andrew, are able to steal out beside him.

### 1.3. *The bright side of the grotesque*

The power of grotesque images is also employed in language about the divine. Various early Christian writings suggest that Jesus was capable of appearing in different forms, both simultaneously and subsequently.<sup>16</sup> In the *Acts of John* 88–89, Jesus simultaneously appears to James as a child and to John as a handsome man. Not much later he appears to John as a bald headed man with “thick and flowing beard,” and to James as a youth whose beard is just starting. In the same text, John reports that Jesus’ body was sometimes soft, but sometimes hard as stone; his eyes were always open; he left no footprints on the ground, and he was often a small figure looking upwards to the sky. During his transfiguration on the mountain, Jesus’ head reaches heaven; when John walks up to him, he turns around, suddenly becoming a small man, and pulls John’s beard.

In the *Acts of Peter* 20–21, blind women see Christ in different form simultaneously. Some see an old man, whose appearance they cannot describe; others see a young man (*iuuenem adulescentem*)

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<sup>16</sup> This phenomenon called ‘polymorphy’ in recent scholarship. Definitions of polymorphy vary as well as theories of its origin. For two recent discussions of the subject see Czachesz, *The Grotesque Body*, 127–46; P. Foster, “Polymorphic Christology: Its Origins and Development in Early Christianity,” *The Journal of Theological Studies* 58 (2007), 66–99.

one, still others a boy. In various Apocryphal Acts, Christ routinely appears as a beautiful young man, or in the form of the protagonist.<sup>17</sup> In the *Acts of Andrew and Matthias* he appears as a ship captain (5, 17) and as a little child (18, 33) and claims he can appear in any form he wishes (18).

Occasionally Jesus appears in the form of animals. The lamb of Revelation is a well-known example, but precisely because of its familiarity we seldom think about it as a case of theriomorphic representation. Jesus also appears as an eagle in various writings. In the *Apocryphon of John*, which paraphrases the biblical story of creation, Jesus Christ, the Savior, teaches Adam and his wife Eve: “I appeared in the form of an eagle on the tree of knowledge [...] that I might teach them and awaken them out of the depth of sleep. For they were born in a fallen state and they recognized their nakedness” (NHC II.23.26–33).<sup>18</sup> In the *Acts of Philip* 3.5–9 (probably 4<sup>th</sup> century),<sup>19</sup> the apostle Philip prays and beseeches the Lord Jesus to reveal himself. Suddenly a huge tree appears in the desert. When Philip looks upwards, he catches glimpse of the “image of a huge eagle,” the wings of which are “spread out in the form of the true cross.” Philip addresses the “magnificent eagle,” and asks it to take his prayers to the Savior. He calls it “chosen bird,” the beauty of which is “not of this place.” Suddenly he realizes that it is the Lord Jesus Christ “who revealed himself in this form.” The apostle praises the Lord, and Jesus (still in the form of an eagle) exhorts the apostle.

Speaking animals are stock-material in the Apocryphal Acts.<sup>20</sup> In the *Acts of Paul*, the apostle

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<sup>17</sup> Czachesz, *The Grotesque Body*, 132–33. Cf. P. J. Lalleman, “Polymorphy of Christ,” in J. N. Bremmer, ed., *The Apocryphal Acts of John* (Kampen: Kok Pharos, 1995), 97–118, esp. 109.

<sup>18</sup> The short version of the text probably dates to the second century, cf. G. P. Luttikhuisen, “A Gnostic Reading of the Acts of John,” in Bremmer, *The Apocryphal Acts of John*, 119–52 at 124–5. This passage is found in the long version.

<sup>19</sup> I. Czachesz, *Commission Narratives: A Comparative Study of the Canonical and Apocryphal Acts of the Apostles* (Leuven: Peeters, 2007), 140, note 1.

<sup>20</sup> Ch. R. Matthews, “Articulate Animals: A Multivalent Motif in the Apocryphal Acts of the Apostles,” in F. Bovon, A. G. Brock, and Ch. R. Matthews, eds., *The Apocryphal Acts of the Apostles* (Cambridge, Mass.: Harvard University Press, 1999), 205–32; I. Czachesz “Speaking Asses in the Acts of Thomas: An Intertextual

baptizes a speaking lion, which he meets again when he is sentenced to the animals in Ephesus.<sup>21</sup> In the *Acts of Peter* 9–12 a dog serves as the apostle’s messenger, summoning Simon Magus. In the *Acts of Thomas*, both speaking animals of the Hebrew Bible are featured: the apostle destroys the serpent of Eden (31–3, see above), and speaking asses assist him twice in the narrative (39–41; 68–81). Philip in his Acts meets three articulate animals: the eagle that is Jesus Christ (*Acts of Philip* 3.5–9); a leopard and a kid that he baptizes and who will even receive the Eucharist (chapters 8 and 12). Other animals do not speak but display intelligent behavior otherwise: for example, bugs obey the apostle in the *Acts of John* 60–61, leaving his bed and waiting outside of the house during the whole night, until John lets them back into their dwelling.

## 2. Violating expectations: counterintuitive ideas

Although I have given rather diverse examples of the grotesque in the first part of my contribution, it is certainly true of all of them that they show things in surprising, non-standard ways. Normally speaking, no scary animals are born of mothers’ milk, nobody changes his stature in a second, people are not foxes, eagles do not speak, and servants do not empty chamber-pots on the heads of their masters. Things work in these texts in ways we do not see in everyday experience.

How elements that violate everyday expectations affect the attractiveness and memorability of ideas is explained by Pascal Boyer’s model of ‘minimal counterintuitiveness.’ Boyer’s theory is based on the assumption that the human mind has been shaped by evolution for millions of years. Our minds

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and Cognitive Perspective,” in G. H. van Kooten and J. T. A. G. M. van Ruiten, eds., *Balaam and His Speaking Ass* (Leiden: Brill, 2008), 275–85.

<sup>21</sup> Hamburg Papyrus 1–3. Paul meets the lion another time in the Coptic fragment of the *Acts of Paul*, preserved in Papyrus Bodmer XLI (R. Kasser and P. Luisier, “Le Papyrus Bodmer XLI en édition princeps: l’épisode d’Éphèse des Acta Pauli en copte et en traduction,” *Le Muséon* 117 (2004), 281–384). Cf. T. Adamik, “The Baptized Lion in the Acts of Paul,” in J. N. Bremmer, ed., *The Apocryphal Acts of Paul* (Kampen: Kok Pharos, 1996), 60–74.

did not develop to think about just everything in the world, but primarily to secure our survival amongst a particular set of challenges. Therefore, we are predisposed to pay attention to certain aspects of the world around us (e.g., predators, prey, human faces, depth), and think in particular ways about that information (e.g., fighting, fleeing, cooperating, mating).<sup>22</sup> The human mind is not a blank slate when we are born, but rather it is a well-adapted organ which we can use to solve specific tasks in the world. Experimental work has shown that humans share a number of ontological categories to make sense of their environment.<sup>23</sup> Ontological categories represent “the most fundamental conceptual cuts one can make in the world, such as those between animals and plants, artifacts and animals, and the like.”<sup>24</sup> Experiments have also shown that “at the ontological level there are clusters of properties that unambiguously and uniquely belong to all members of a given category at that level. All animals are alive, have offspring, and grow in ways that only animals do.”<sup>25</sup> In other words, people have particular expectations toward objects belonging to a particular category. Psychologists have not yet reached a final agreement regarding the set of basic ontological categories, but the following list is widely supported: HUMAN, ANIMAL, PLANT, ARTIFACT, and (natural) OBJECT.<sup>26</sup>

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<sup>22</sup> Evolutionary psychology examines such aspects of human cognition. A representative study is S. Pinker, *How the Mind Works* (New York: Norton, 1997).

<sup>23</sup> F. C. Keil, *Semantic and Conceptual Development: An Ontological Perspective* (Cambridge, Mass.: Harvard University Press, 1979), 46–62.

<sup>24</sup> F. C. Keil, *Concepts, Kinds, and Cognitive Development* (Cambridge, Mass.: M.I.T. Press, 1989), 196.

<sup>25</sup> Keil, *Concepts, Kinds*, 214.

<sup>26</sup> Keil, *Semantic and Conceptual Development*, 48; S. Atran, “Basic Conceptual Domains,” *Mind and Language* 4 (1989), 7–16; idem, *In Gods We Trust: The Evolutionary Landscape of Religion* (New York: Oxford University Press, 2002), 98; P. Boyer, “Cognitive Constraints on Cultural Representations,” in L. A. Hirschfeld and S. A. Gelman, eds., *Mapping the Mind: Domain Specificity in Cognition and Culture* (Cambridge: Cambridge University Press, 1994), 391–411, at 400–1; idem, *Religion Explained: The Human Instincts that Fashion Gods, Spirits and Ancestors* (New York: Basic Books, 2001), 90. For a slightly different account, see J. L. Barrett, “Coding and Quantifying Counterintuitiveness: Theoretical and Methodological Reflections,” forthcoming.

Boyer's theory of counterintuitiveness suggests that religious ideas violate intuitive expectations about ordinary events and states, inasmuch as they "combine certain schematic assumptions provided by intuitive ontologies, with non-schematic ones provided by explicit cultural transmission."<sup>27</sup> Or, as he more recently summarised his model, "religious concepts generally include explicit violations of expectations associated with domain concepts," that is, they violate the attributes that already children intuitively associate with ontological categories. The idea of a ghost that can go through walls, for example, is based on the ontological category of human beings, but violates our expectations about intuitive physics that should otherwise apply to humans. Concepts that contain such violations, Boyer suggests, "are more salient than other types of cultural information, thereby leading to enhanced acquisition, representation, and communication."<sup>28</sup>

Boyer's theory has been tested in various experiments. Justin Barrett and Melanie Nyhof added three types of concepts to a simple narrative framework:<sup>29</sup> (1) expectation-violating items included a feature that violates intuitive assumptions for the ontological category to which the object belongs (e.g., a living thing that never dies); (2) bizarre items that included a highly unusual feature that violates no category-level assumption (e.g., a living thing that weighs 5000 kilograms is strange, but such a feature is not excluded by ontological expectations about living things); (3) ordinary items with a usual feature (e.g., a living thing that requires nutrients to survive). Subjects had to read the story and write it down from memory; the results were used as input data for a second generation, whose versions in turn were read and written down by a third group. Barrett and Nyhof found that during the three subsequent recalls of the story, counterintuitive and bizarre items were remembered significantly

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<sup>27</sup> P. Boyer, *The Naturalness of Religious Ideas: A Cognitive Theory of Religion* (Berkeley: University of California Press, 1994), 48, 121, and *passim*.

<sup>28</sup> P. Boyer and C. Ramble, "Cognitive Templates for Religious Concepts: Cross-cultural Evidence for Recall of Counter-intuitive Representations," *Cognitive Science* 25 (2001), 535–64 at 538.

<sup>29</sup> J. L. Barrett and M. A. Nyhof, "Spreading Non-natural Concepts: The Role of Intuitive Conceptual Structures in Memory and Transmission of Cultural Materials," *Journal of Cognition and Culture* 1 (2001), 69–100.

better than common items. Experiments run by Pascal Boyer and Charles Ramble produced similar results.<sup>30</sup>

Ara Norenzayan and Scott Atran conducted a different experiment.<sup>31</sup> They suspected that the narrative framework in the previous experiments biased the recall of different types of items; therefore they gave subjects only lists of items without a narrative framework.<sup>32</sup> Their initial findings contradicted Boyer's theory: the more intuitive an item or a set of items was, the better it was remembered. However, when Norenzayan and Atran compared the results of the immediate and delayed recalls (after three minutes and one week, respectively), they found that memory for minimally counterintuitive items decayed less than for intuitive or excessively violating ones. Recently both the role of context and the long-term advantage of counterintuitive ideas has been confirmed by experiments conducted by Lauren Gonce and her collaborators.<sup>33</sup> A new look at Barrett and Nyhof's results reveals that also in their experiment the memory of counterintuitive ideas decayed less; they paid no attention to this probably because of the absolute advantage of such concepts in both immediate and delayed recall in the experiment.<sup>34</sup>

Since grotesque images always include one or more elements that violate everyday experience, Boyer's model explains why such images are attractive and why they are remembered. Most of the examples in this article indeed contain only limited violations of ontological templates. Bodies in hell are distorted only in one or two ways at a time; stories with drastic humour retain a believable setting

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<sup>30</sup> Boyer and Ramble, "Cognitive Templates."

<sup>31</sup> Atran, *In Gods We Trust*, 100–7; A. Norenzayan and S. Atran, "Cognitive and Emotional Processes in the Cultural Transmission of Natural and Nonnatural Beliefs", in M. Schaller and C. S. Crandall (eds.), *The Psychological Foundations of Culture* (Mahwah, NJ: Lawrence Erlbaum Associates, 2004) 149–69.

<sup>32</sup> As in the previous experiments, the lists were balanced against various influences, see Atran, *In Gods We Trust*, 101–3.

<sup>33</sup> L. O. Gonce et al. "Role of Context in the Recall of Counterintuitive Concepts," *Journal of Cognition and Culture* 6 (2006), 521–47; M. A. Upal et al., "Contextualizing Counterintuitiveness: How Context Affects Comprehension and Memorability of Counterintuitive Concepts," *Cognitive Science* 31 (2007), 415–39.

<sup>34</sup> Barrett and Nyhof, "Spreading Non-natural Concepts," 85–87, 89–90.

to which they add only few scatological elements; and animals speak or listen to the apostles but are not weird otherwise.

Whereas Boyer's theory of counterintuitiveness certainly explains some elements of the grotesque, including its attention-grabbing nature and memorability, it does not explain others. To begin with, not all violations in our examples affect ontological expectations. Metabolism certainly belongs to our ontological expectations about human beings – its occurrence in scatology rather violates learned expectations about the settings in which it should occur and the ways it should be described. This, of course, cannot be taken as a disproof of Boyer's theory, which is mainly intended to explain our belief in ghosts, spirits, and gods. Nevertheless, it must be noted that some recent experiments did not find a difference (in terms of memorability) between the violation of ontological and other categories.<sup>35</sup> More importantly, this model does not yet explain why grotesque images are different from other kinds of counterintuitive ideas (the very idea of God, to mention an obvious example) that are not felt to be grotesque.

### **3. Metamorphosis and mind**

The concept of 'metamorphosis' offers another perspective to approach the grotesque in early Christian literature. Dead people in hell, however strangely they appear and behave, were originally people like you and me who have been changed into a different form. The eagle that talks to Philip is actually Jesus who appears as an eagle. In a less spectacular way, many of the grotesque images have come into existence by changing either 'normal' things (of which we have first-hand experience from everyday life) or counterintuitive ones into new, surprising forms. This is not self-evident, because there are many counterintuitive ideas that do not include an element of metamorphosis. For example, Ezekiel's throne vision (Ezekiel 1:5–25) describes a structure that has not come to existence (according to the narrative) from something that belongs to ordinary experience. Whereas ancestors

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<sup>35</sup> K. Steenstra, "A Cognitive Approach to Religion: The Retention of Counterintuitive Concepts" (Master's thesis, Radboud University, Nijmegen, 2005).

(or saints) used to be ordinary people, this cannot be said of God – at least in Jewish and Christian thought. In this part of my article, I will argue that although ‘metamorphosis’ can have several different meanings in ancient and modern usage, it is ultimately related to the manipulation of everyday expectations attached to ontological categories.

When Ovid speaks of metamorphoses, he generally means that someone or something assumes a completely different form – which is, however, a usual form otherwise. According to his invocation, Ovid wants to deal with “shapes transformed into new bodies” (*in nova ... mutatas formas ... corpora*).<sup>36</sup> If we look at his metamorphoses, we can see that the “new bodies” are most of the time quite usual objects, plants, animals, or human beings. The same is true of the metamorphosis of Lucius in the *Ass Novel* (in both Pseudo-Lucian’s and Apuleius’ versions). At other times, however, Ovid’s heroes do assume forms that are unusual in themselves: Hermaphroditus is merged with the nymph Salmacis (IV.274–388); some people become divine beings, such as Hercules, Aeneas, Romulus, and Hersilia.<sup>37</sup> Among Ovid’s metamorphoses there are also ones in which somebody or something acquires a new and unusual feature, rather than undergoing a thorough change. A good example is Icarus who flies using the wings made by his father Daedalus. Some examples from the New Testament correspond to the latter two types in Ovid’s book. When the Gospels write of Jesus’ metamorphosis (μεταμορφώθη) on the mount of transfiguration,<sup>38</sup> he still remains in human form but acquires unusual attributes: “his face shone like the sun, and his garments became white as light.” (*Matthew 17:2*) When Paul suggests believers would be transformed into Jesus’ image (*2 Corinthians 3:18*, τὴν αὐτὴν εἰκόνα μεταμορφούμεθα), he certainly does not refer to Jesus’ bodily appearance on earth, but some other form that is unknown from everyday, first-hand experience. Given the range of metamorphoses we have in these examples, it seems advisable to start out with a rather broad understanding of metamorphosis, which spans from the growing of strange attributes to a complete

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<sup>36</sup> Ovid, *Metamorphoses* I.1.

<sup>37</sup> For the latter, see I. S. Gilhus, *Animals, Gods and Humans: Changing Attitudes to Animals in Greek, Roman, and Early Christian Ideas* (London: Routledge, 2006) 79.

<sup>38</sup> Mark 9:2; Matthew 17:2; cf. Luke 9:29.

change into either normal or unusual shapes.

Our observations about counterintuitiveness (that is, the violation of expectations attached to universal ontology) and metamorphosis allow for a characterisation of grotesque phenomena. Objects can fall under four rubrics with regard to counterintuitiveness and metamorphosis (see table below).

(1) The first type involves both metamorphosis and at least one counterintuitive element. Ovid's Hermaphroditus and heroes undergoing apotheosis are examples of this category. Among the grotesque motifs mentioned in this article, we can refer here to the monsters born of breast milk; devout animals; or Jesus appearing as a speaking eagle. (2) The second type contains only metamorphosis, without a counterintuitive element. Ovid's Icarus certainly belongs to this category. Do his heroes changed into animals also belong here? This needs further clarification, which we will undertake later on. Many grotesque images are created in this way, such as people in hell assuming strange positions and suffering various ordeals; victims of scatological humour; and Jesus appearing as a ship captain or a child. (3) The third type contains only a counterintuitive element, but no metamorphosis. Various gods, at least ideally, belong to this category (in practice, however, most deities have the inclination to assume different shapes). In the realm of the grotesque, demonic figures fall under this rubric: the huge dragon, the young man lurking at the bath, and the black man and his son. (4) Objects of the fourth type include no counterintuitive element, neither have they undergone a metamorphosis. It is hard to find an example among the grotesque images studied in this article that would fit here. Strange things do occur in our natural environment – but are they grotesque? Our fantasy can also create objects and monsters that nevertheless do not violate ontological expectations – but again, are such things grotesque? It seems reasonable to hypothesise that grotesque images minimally involve either counterintuitiveness or metamorphosis.

Table 1

		METAMORPHOSIS	
		yes	no
COUNTERINTUITIVENESS	yes	1) devout animals; Jesus appearing as a speaking eagle	3) demonic figures
	no	2) people in hell assuming strange positions and suffering ordeals; victims of scatological humour; Jesus appearing as a ship captain or a child	4) ???

We have already seen how counterintuitive ideas arise from the innate ontological expectations that dwell in our minds. Is the phenomenon of metamorphosis also related to these mental structures? It seems very much so. Frank C. Keil, whose experimental studies have greatly contributed to our understanding of ontological expectations, has undertaken a study with Michael H. Kelly about the metamorphoses in Ovid's book and the fairy-tales of the Brothers Grimm.<sup>39</sup> Kelly and Keil have looked at all transformations in *Metamorphoses*, and observed in which ontological category the metamorphosis starts and where it ends. In general, Kelly and Keil found that metamorphoses are unlikely to cross the boundary between animate beings (including gods, humans, and animals) and inanimate things. Taken both texts together, 73 percent of animate beings remained animate and 81 percent of inanimate objects remained inanimate. Metamorphoses do not normally change people into chairs or hammers into gods. A look at our sample reveals that this is also true of the metamorphoses involved in grotesque motifs. In most of them we find animate beings that also remain animate: gods, humans, or animals. One exception seems to be the monsters born of breast milk – but even in this

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<sup>39</sup> M. H. Kelly and F. C. Keil, "The More Things Change...: Metamorphoses and Conceptual Structure," *Cognitive Science* 9 (1985), 403–16.

case the underlying assumption might be that the monsters are actually born from the mothers. More direct examples might be derived from other parts of biblical literature, such as Lot's wife in Genesis 19. This example shows, however, that once an animate being turns into an inanimate one, it loses most of its fascination – Lot's wife as a salt pillar is much less interesting than, let us say, Lucius as an ass. An example of the opposite metamorphosis is John the Baptist's claim that God is able to raise children for Abraham out of stones (Matthew 3.9) – which is, however, never realised. A closely related subject – which we cannot explore in more detail in this article – is whether the resurrection of the dead requires that the dead retain an animate ontological status. In the *Apocalypse of Peter* they certainly do.

What can we observe if we look at the data on a finer scale? What about the metamorphoses that remain within the animate/inanimate categories? In order to be able to handle the wealth of data, Kelly and Keil divided metamorphoses into two groups: those where a “conscious being” (that is, human or god) is being transformed, and those where the starting shape involves members of other ontological categories. What they found was that more than half of the humans and gods who underwent a metamorphosis ended up as animals (51 percent in Ovid and 52 percent in the Grimm's fairy-tales). Approximately a fifth of them were transformed into other humans or gods (20 percent in Ovid and 23 percent in Grimm). Exactly ten percent in both texts became plants, and a little more than ten percent (12 and 11, respectively) became inanimate objects. Some five percent became liquids (which are handled as a different ontological category by the authors), and there are three cases in Ovid (2 percent) when conscious beings become events rather than objects. The level of similarity in the data from Ovid and the Grimms is all the more surprising since the two texts are divided by a great historical distance. We can add here a rudimentary comparison with Greek mythology, based on the catalogue of P. M. C. Forbes Irving. Considering only the amount of motifs in different categories, we find similar proportions as Kelly and Keil found in Ovid and the Grimm Brothers. Animal metamorphoses (particularly metamorphoses into birds) are the most widespread, followed by

metamorphoses into plants, stones, and other objects.<sup>40</sup>

Even on a finer scale, Kelly and Keil conclude, the stability of ontological status is observable. The further we move away from the original ontological category, the less likely we will find there the final state of the metamorphosis. In terms of their hypothesis, this is because all humans at an early age develop a sense that things cannot be manipulated so that they change their ontological category. Most children at the age of five still admit that a horse can be changed into a zebra by painting stripes on, tailoring its mane and tail, and teaching it to behave like a zebra.<sup>41</sup> At the same time, they resist the idea that a toy bird can be changed into a real bird by similar operations. What is really interesting, is that similarity between the starting and ending form does not seem to influence their judgment: “children are just as likely to allow an insect to be turned into a mammal or an insect into a fish as they are to allow one mammal to be turned into a closely related one.”<sup>42</sup> These findings can be used to explain the relative ontological stability in *Metamorphoses* and the Grimms’ fairy-tales: things tend to remain in their ontological category, or if they do change it, they shift into a neighboring one.

But there is one piece of data that is not explained by the stability of ontological categories, namely the dominance of god-animal and human-animal transformations among animate beings. According to Ingvild Gilhus, in the Roman world it was easier for a god or human to change into an animal than the other way around because “gods, humans and animals in Ovid’s *Metamorphoses* are also locked into a system that in several ways functions hierarchically.”<sup>43</sup> This system allows for changes toward “lower categories,” makes some exceptions for humans who may occasionally become gods, but does not let animals change into higher forms. “The system,” Gilhus concludes, “also implies a more fundamental division between animals and humans than between humans and gods, which is in accordance with a general tendency in people’s thinking concerning animals in these

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<sup>40</sup> P. M. C. Forbes Irving, *Metamorphosis in Greek Myths* (Oxford: Oxford University Press, 1990), 196–319. Forbes Irving’s catalogue does not include the transformations of gods, witches, magicians, or inanimate objects.

<sup>41</sup> Keil, *Concepts, Kinds, and Cognitive Development*, 195–215.

<sup>42</sup> Keil, *Concepts, Kinds, and Cognitive Development*, 211–13.

<sup>43</sup> Gilhus, *Animals, Gods and Humans*, 82.

centuries.” Whereas this model agrees on several points with the universal ontology account (existence of a locked system; greater distance between humans and animals than between gods and humans), it also yields some serious difficulties. First, it introduces a time-bond element, connecting the hierarchical system of *Metamorphoses* to the way of thinking “in these centuries.” How can it be then that the same proportions are found in the fairy-tales of the Brothers Grimm?<sup>44</sup> Second, and more importantly, it does not explain why there are ‘higher’ and ‘lower’ places in the assumed hierarchy. The special status of humans in the universe is a widely shared insight, yet Adam was made of the dust of earth – as was man in *Metamorphoses* I.76–88.<sup>45</sup> For a second time, after the flood, humans are made of stones (I.381–415), as Deucalion and Pyrrha obey the divine command and throw stones behind them.

The challenge has been recognised by Kelly and Keil, who emphasise the “fundamental similarities between conscious beings and animals.” Whereas this may explain why many humans become animals rather than remaining humans, it does not account for the asymmetry of the metamorphoses (human to animal rather than animal to human), which has been addressed by Gilhus. To find a solution, it may be useful to focus both on how metamorphosis between humans and animals happens and the results of such metamorphoses. This is how Arachne is made into a spider and Lucius into an ass:<sup>46</sup>

So saying, as she turned to go she sprinkled her with the juices of Hecate’s herb; and forthwith her hair, touched by the poison, fell off, and with it both nose and ears; and the head shrank up; her whole body also was small; the

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<sup>44</sup> For animal-human metamorphoses in more fairy-tales, see G. Brunner Ungricht, *Die Mensch-Tier-Verwandlung: Eine Motivgeschichte unter besonderer Berücksichtigung des deutschen Märchens in der ersten Hälfte des 19. Jahrhunderts* (Bern: Peter Lang, 1998).

<sup>45</sup> In Genesis 2.7, God also breathes the “breath of life” (Heb. *nishmath chayyim*, Gr. πνοή ζωής) into Adam’s nostrils. In *Metamorphoses* I, the stones transform into humans “by the power of the gods” (*superorum numen*, I.411), but nothing is added to them.

<sup>46</sup> Cf. Gilhus, *Animals*, 80.

slender fingers clung to her side as legs; the rest was belly. (Ovid,  
*Metamorphoses* VI.139–45)

Then I hastily tore off all my clothes, dipped my hands eagerly into the box, drew out a good quantity of the ointment, and rubbed all my limbs with it. I then flapped my arms up and down, imitating the movements of a bird. But no down and sign of feathers appeared. Instead, the hair on my body was becoming coarse bristles, and my tender skin was hardening into hide. There were no longer fingers at the extremities of my hands, for each was compressed into one hoof. From the base of my spine protruded an enormous tail. My face became misshapen, my mouth widened, my nostrils flared open, my lips became pendulous, and my ears huge and bristly. The sole consolation I could see in this wretched transformation was the swelling of my penis – though now I could not embrace Photis. (Apuleius,  
*Metamorphoses* III.24, Walsh)

Both episodes describe the metamorphosis of a human being into an animal – but what are the attributes changing here? In both cases it is only the outward appearance that receives attention – nothing is told about the inner parts or the mental processes. Lucius reports the whole metamorphosis in first person, making it evident that he remained Lucius all the time. Actually Lucius remains the narrator of the whole novel, losing his ability to speak, but retaining his human mind. As Gilhus rightly observes about Ovid’s *Metamorphoses*, “Most striking in many of these transformations is the way that being an animal is described as being in a foreign place. It is as if the human soul is peeping out from an animal body, and the human consciousness is trapped within the beast.” This aspect of metamorphosis is hardly “striking” if we compare it once more with experimental evidence. The way Arachne and Lucius are transformed is similar to the alleged operations that were used in the above-mentioned experiments conducted by Keil. As we have seen, the experiments have shown that whereas five-year-olds would accept that by such operations, for example, horses turn into zebras, they resist the idea that this works across ontological categories. The human mind seems to have the

tendency to assume continuity in animate beings – which cannot be turned into other beings in the same way as chairs into tables.

Let us now look at the results of the metamorphoses. As the statistics of Kelly and Keil show, in Ovid and the Grimm fairy-tales most animate beings remain animate, animals being the most frequent resulting form. As a rule, these animals will receive human traits that they do not have otherwise. It is precisely these human features that make such animals interesting to the reader, and indeed, this is the very reason animal metamorphoses are so popular. The result of such metamorphoses is a counterintuitive being, in the sense that it violates basic ontological expectations (to different degrees) about animals. Since readers continue to think about these animals as humans in an animal shape, they will attribute to them thoughts and feelings beyond that what is explicitly mentioned in the text. Even if the human aspect in the animals is sometimes flattened by the text,<sup>47</sup> an animal shape still makes it much easier to retain such traits than would the form of an inanimate object. The resulting forms of animal metamorphoses may come very close to another type of metamorphosis, which is frequent in early Christian texts, when animals receive in the narrative some level of human intelligence. Such beings are also counterintuitive and seem to do the same job as the results of the animal metamorphoses. Yet there is a basic difference in how readers treat them: in terms of the ontological model, devout animals essentially remain animals, and the reader will be less willing to supply them with human traits that are not explicitly mentioned in the text. Here the default assumptions about animals are continued, which are, however, less rich than our assumptions about human beings.

What would a real animal-into-human metamorphosis look like? In fact, there are examples of such metamorphoses, but not in the literature under consideration. Werewolves might be good candidates; however, they can be probably better described as people changing into wolves temporarily than the other way around.<sup>48</sup> In Japanese folktales, animals often transform into humans.<sup>49</sup>

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<sup>47</sup> As Gilhus, *Animals, Gods and Humans*, 89, argues. We may add that in this respect there are great differences between individual cases.

<sup>48</sup> Cf. Ungricht, *Die Mensch-Tier-Verwandlung*, 161–3; D. Ogden, *Magic, Witchcraft, and Ghosts in the Greek and Roman Worlds: A Sourcebook* (Oxford: Oxford University Press, 2002) 175–78; J. R. Veenstra, “The Ever-

These metamorphoses are different from the human to animal transformations of Ovid and the Grimms in several respects. First, the process of transformation is never described.<sup>50</sup> Second, the metamorphosis does not involve a special difficulty, no magical act is needed, and the animal can even change its shape repeatedly in both ways.<sup>51</sup> Third, the metamorphosis takes place with a particular purpose (of the animal).<sup>52</sup> Finally, the perfection of the metamorphosis plays a major role in the stories: if the animal is recognised, it has to flee or can be killed.<sup>53</sup> Without a deeper analysis of the material, it can be observed that in most of these folktales (with the exception of a single variant) the animals have a human psyche already before the metamorphosis: they are thankful, want to marry a human, or to fight with him.<sup>54</sup> Consequently, readers attribute to these creatures human thoughts and feelings both before and after the metamorphosis. In sum, they are thought about as humans in an animal shape rather the other way around.

#### 4. Emotional effects

Whether we read about humans turned into animals, or hanging head downwards in hell, or doing their business before an invisible congregation, we cannot help drawing various inferences about their thoughts and feelings. In doing so we rely on our ability to read the minds of other

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Changing Nature of the Beast: Cultural Change, Lycanthropy, and the Question of Substantial Transformation (From Petronius to Del Rio),” in J. N. Bremmer and J. R. Veenstra, eds., *The Metamorphosis of Magic from Late Antiquity to the Early Modern Period* (Leuven: Peeters, 2002), 133–66.

<sup>49</sup> I. Vogelsang, “Die Verwandlung vom Tier zum Menschen im japanischen Volksmärchen” (Dissertation, Universität Hamburg, 1997).

<sup>50</sup> Vogelsang, “Die Verwandlung,” 16.

<sup>51</sup> Vogelsang, “Die Verwandlung,” 16, 43–44.

<sup>52</sup> Vogelsang, “Die Verwandlung,” 26–34.

<sup>53</sup> Vogelsang, “Die Verwandlung,” 34–42.

<sup>54</sup> Vogelsang, “Die Verwandlung,” 26–34.

people,<sup>55</sup> which we can achieve even in cases when the other one is not there, is dead, or is only a fictional character.<sup>56</sup> Yet the way we do this may be considerably different if images of the human body are involved. In the final part of my contribution I will explore this dimension of the grotesque representations in early Christian literature.

A recent finding in developmental psychology has been the surprising fact that – notwithstanding the former claims of Jean Piaget – children imitate facial expressions and other bodily movements at a very early age, indeed, right after birth.<sup>57</sup> Children can imitate hand movements already during the first six months of life and as soon as 42 minutes after birth they imitate facial acts.<sup>58</sup> So-called mirror-neurons have been identified in the brain of monkeys that facilitate the imitation of goal-directed motion: these neurons are activated whenever the monkey sees another individual (monkey or experimenter) making a goal-directed action with the hand or with the mouth.<sup>59</sup> Imitation is not necessarily conscious: one has to think only about the contagiousness of yawning.

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<sup>55</sup> Ch. Frith and U. Frith, “Theory of Mind,” *Current Biology* 15 (2005), R644.

<sup>56</sup> M. Taylor, *Imaginary Companions and the Children Who Create Them* (New York: Oxford University Press, 1999); J. M. Bering, “Intuitive Conceptions of Dead Agents’ Minds: The Natural Foundations of Afterlife Beliefs as Phenomenological Boundary,” *Journal of Cognition and Culture* 2 (2002), 263–308; E. V. Hoff, “A Friend Living Inside Me – The Forms and Functions of Imaginary Companions,” *Imagination, Cognition and Personality: The Scientific Study of Consciousness* 24 (2005), 151–90.

<sup>57</sup> A. N. Meltzoff, “Elements of a Developmental Theory of Imitation,” in *The Imitative Mind: Development, Evolution, and Brain Bases* (ed. A. N. Meltzoff and W. Prinz; Cambridge: Cambridge University Press, 2002), 19–41. For an introduction to imitation, see S. Hurley and N. Chater, “Introduction: The Importance of Imitation,” in *Perspectives on Imitation: From Neuroscience to Social Science* (ed. S. Hurley and N. Chater; 2 vols: Cambridge, Mass.: M.I.T. Press, 2005), vol 1, 1–52.

<sup>58</sup> Meltzoff, “Elements of a Developmental Theory of Imitation,” 22–23.

<sup>59</sup> G. Rizzolatti et al., “From Mirror Neurons to Imitation: Facts and Speculations,” in Meltzoff and Prinz, *The Imitative Mind*, 247–66; G. Rizzolatti, “The Mirror Neuron System and Imitation,” in Hurley and Chater, *Perspectives on Imitation*, vol 1, 55–76.

Humans synchronise many aspects of their behaviour spontaneously, without taking notice of it.<sup>60</sup>

People have the tendency to automatically mimic and synchronise movements, facial expressions, postures, and emotional vocalisations with those displayed by others.<sup>61</sup> A widespread use of imitation is “social mirroring,” the purpose of which is to show empathy or mutual identification,<sup>62</sup> but imitation also enables us to engage in joint action and sophisticated cooperation.<sup>63</sup>

The effects of imitation extend beyond signalling or carrying out actions together and influence our thoughts and feelings. We can also use imitation when we do not actually carry out the imitated actions. There are important clues suggesting that imitation fulfils a major role in understanding the thoughts and emotions of others. On the analogy of the mirror neurons in monkeys, it has been found, that also in humans the observation of actions performed by others activates cortical motor representation – that is, brain areas are activated that are responsible for the movement of different parts of the body.<sup>64</sup> In humans, however, this response involves a wider range of actions, such as intransitive and mimed actions: reaction has been detected in the muscles of subjects observing both transitive and intransitive actions, and even meaningless hand or arm gestures. There are similar findings about emotion: the same brain parts that are involved in the feel of disgust and pain are also activated when we empathise with such emotions.<sup>65</sup> This leads to the “unifying view” of social

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<sup>60</sup> R. W. Byrne, “Social Cognition: Imitation, Imitation, Imitation,” *Current Biology* 15 (2005), R498–500; S. Strogatz, *Sync: The Emerging Science of Spontaneous Order* (New York: Theia, 2003).

<sup>61</sup> R. W. Gibbs, *Embodiment and Cognitive Science* (Cambridge: Cambridge University Press, 2006), 249.

<sup>62</sup> R.W. Byrne, “Social Cognition.”

<sup>63</sup> M. Brass and C. Heyes, “Imitation: Is Cognitive Neuroscience Solving the Correspondence Problem?” *Trends in Cognitive Sciences* 9 (2005), 489–95; L. Q. Uddin et al., “The Self and Social Cognition: The Role of Cortical Midline Structures and Mirror Neurons,” *Trends in Cognitive Sciences* 11 (2007), 153–57.

<sup>64</sup> V. Gallese, Ch. Keysers, and G. Rizzolatti, “A Unifying View of the Basis of Social Cognition,” *Trends in Cognitive Sciences* 8 (2004), 396–403.

<sup>65</sup> C. Keysers et al., “A Touching Sight: SII/PV Activation During the Observation and Experience of Touch,” *Neuron* 42 (2004), 335–46; T. Singer et al., “Empathy for Pain Involves the Affective But Not the Sensory Components of Pain,” *Science* 303 (2004), 1157–62.

cognition, suggesting that these brain areas can be activated also when decoupled from their peripheral effects, enabling us to simulate and thereby understand the actions and emotions of others.<sup>66</sup>

Not only we do not actually have to carry out actions or be exposed to pain in order to empathise with them, but also a limited amount of information is sufficient to activate the relevant brain areas and elicit empathy. In monkeys, the mirror neurons represent actions whether they are performed, heard, or (partially) seen.<sup>67</sup> In humans, disgust is represented in the brain when only the facial expression of disgust is observed.<sup>68</sup> It is, however, questionable whether the “simulation theory” can explain more complex thoughts about other people’s mental states. For example, simulation is not sufficient to account for the attribution of false beliefs – that is, beliefs that differ both from one’s own beliefs and the true state of the world.<sup>69</sup> Notwithstanding the very early presence of imitation, the understanding of such scenarios emerges not earlier than between the ages of 4 and 6 years.<sup>70</sup>

In light of recent neuroscientific research, we can now make some observations about the images of the grotesque body in our texts. It is arguable that these vivid spectacles of human bodies more directly activate empathising sensations than references to more sophisticated behaviors and thoughts that occur in other literary discourses. In terms of what we learned about (involuntary) imitation and empathy, we have good reason to believe that descriptions of postures, movements, limbs, faces, eyes, mouth, nose, ears, genitals, and other body parts, as well as various means of torture related to them, are understood by activating respective neural circuits in our brains and muscles. Many of the descriptions of the punishments in hell also report the reactions of the victims, describing their fear, cries, and groans – supplying additional sources that simulate the reader’s

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<sup>66</sup> Gallese et al., “A Unifying View,” 400; A. N. Meltzoff and J. Decety, “What Imitation Tells Us About Social Cognition: A Rapprochement Between Developmental Psychology and Cognitive Neuroscience,” *Philosophical Transactions of the Royal Society of London B* 358 (2003), 491–500. Imitation certainly does not provide the full story about mind-reading, see our remark on false beliefs below.

<sup>67</sup> Gallese et al., “A Unifying View,” 397.

<sup>68</sup> Gallese et al., “A Unifying View,” 400.

<sup>69</sup> Cf. J. Ward, *The Student’s Guide to Cognitive Neuroscience* (Hove, UK: Psychology Press, 2006), 325.

<sup>70</sup> Frith and Frith, “Development and Neuropsychology,” 460.

sensations and emotions.

There are at least two additional factors that may further intensify these interpretations. First, the emotions that the images of suffering and distorted bodies most likely elicit are fear and disgust. Fear and disgust are two basic emotions that have deep (if not the deepest) evolutionary roots and they are processed by dedicated neural circuits (that is, brain parts that deal only with them). These emotions are indispensable for avoiding danger and the survival of the organism.<sup>71</sup> Fear is responsible for detecting threat and occurs rapidly and without conscious awareness: for example, people suffering from phobias react to the images of snakes or spiders even when they see them without noticing it (that is, subliminally). Disgust is thought to be originally responsible for avoiding contamination and disease by eating, but its usage has extended with time. By activating exactly these two vital emotions, many images of the grotesque body make a very rapid and even unnoticed impression on the reader.

Another mechanism that reinforces the effect of body images is the connection between bodily movements and emotions. According to the theory of William James (known as the James-Lange theory of emotion), we experience emotions because we perceive changes in our bodies. Although the James-Lange theory has been dismissed by experimental research, it is true that bodily experiences influence emotional experience.<sup>72</sup> Patterns of movements can be reasonably linked with different emotions, and a loss of sensation due to injury decreases the experience of emotions.<sup>73</sup> In different experiments, the facial expression of subjects was artificially influenced, for example by having to read certain words or holding objects between their lips, while they had to read stories.<sup>74</sup> The results have shown that the inadvertent facial expressions of the subjects changed the emotions which they

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<sup>71</sup> Ward, *Cognitive Neuroscience*, 315.

<sup>72</sup> Ward, *Cognitive Neuroscience*, 320.

<sup>73</sup> Gibbs, *Embodiment*, 252–53.

<sup>74</sup> F. Strack et al., “Inhibiting and Facilitating Conditions of the Human Smile: A Nonobtrusive Test of the Facial Feedback Hypothesis,” *Journal of Personality and Social Psychology* 54 (1988), 768–77; R. Larsen et al., “Facilitating the Furrowed Brow: An Unobtrusive Test of the Facial Feedback Hypothesis Applied to Unpleasant Affect,” *Cognition and Emotion* 6 (1992), 321–38; Gibbs, *Embodiment*, 253–55.

associated with the stories or the characters in them. Similar results were found when subjects had to assume various bodily postures. In consequence, if we somehow imitate the postures and movements of the bodies in the texts, these simulations may also secondarily modify our emotional experience. Although this explanation may seem redundant since empathy involves simulation anyway, it is arguable that rich details and multiple sources of interpretation amplify the effect of the text.

In sum, there are a number of factors which make grotesque representations of the human body emotionally salient. Such representations include the description of tortures in hell, the drastic scenes of the Apocryphal Acts (with references to metabolism, bowels, head etc.), mockery such as “glutton and drunkard” and “lazy gluttons” (lit. ‘bellies’),<sup>75</sup> and discussion of Jesus’ body as well as his pulling John’s beard in *Acts of John* 90. All of these treatments of the human body are likely to be represented in the mind of the reader or listener using basic simulations of simple actions and sensations related to the respective body parts. The types of sensations and emotions occupy a broad scale, ranging from simple mentions of body parts, natural processes, and touching of the body (John touches Jesus) to the infliction of pain by fire, hitting, biting, hanging, and other means. Given the evolutionary importance of pain, fear, and disgust, we can conclude that images evoking such sensations and emotions stand apart from the rest of the list, somewhat similarly as counterintuitive ideas stand apart from other violations of everyday experience.

## 5. Toward a cognitive theory of the grotesque

If we now combine the three aspects of analysis introduced in this chapter (counterintuitiveness, metamorphosis, and emotions), we arrive at a three-dimensional representation of grotesque elements in early Christian literature. Table 2 shows two dimensions, violation of everyday experience and emotionally salient imagery, on the horizontal and vertical axes, respectively. The third dimension, metamorphosis, can be understood as a change of positions in the chart.

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<sup>75</sup> Matthew 7:19; Luke 7:34; Titus 1:12, respectively.

Table 2

## EMOTIONALLY SALIENT BODY IMAGERY

		no	yes	fear or disgust
VIOLATION OF EVERYDAY EXPERIENCE	counter-intuitive	speaking animals, J. reaching to sky (?)	demons with black lips; demon sleeping w/ woman in sleep	speaking serpent that bursts up?
	yes	[e.g. sheep with five legs]	J.'s body hard/soft; animals born of breast milk	bodies in hell, scatological jokes
	no	J. as ship captain, child, young man	[e.g. illness]	[e.g. repulsive illness]

There are four areas in the table that deserve special attention: the top row, the third column, the upper right corner, and the bottom left corner. The top row and the third column of the table are both related to features of grotesque images that are connected to innate modules of the mind, shaped by evolutionary history. The mental representations of the items in these areas involve different mechanisms in the mind than do the representations of items in the rest of the table. In particular, they are likely the most attention grabbing, and increasingly so as we proceed from left to right and bottom to top.

The least impressive images are found in the bottom left cell of the table. These are ordinary items, such as a ship captain, child, or young man. The reason that they are still grotesque is because they are metamorphosed representations of Jesus. However, they do not exhibit any extraordinary feature in themselves: they do not perform miracles or walk through walls. They are not permanent representations of Jesus, only results of short-lived metamorphoses. This cell is not permanently inhabited by any item. The same holds true for the upper right corner. The only item that fits here is the speaking serpent that bursts up: at this moment, the imagery is likely to activate our brain areas responsible for disgust – an assumption that could be only confirmed by experimental tools. This

image also occupies this cell only for a moment, thereafter disappearing from the scene. The behaviour of both of these areas can be explained by the requirement that excessively counterintuitive ideas do not survive in the long run. It seems that a similar combination arises if we add to counterintuitive images body imagery that evokes fear and disgust.

If images undergo a metamorphosis, they can either stay within the same cell, or move toward less or more salient cells (by moving toward the lower right or upper left corners, respectively). Theoretically, they can also increase their expectation violating component while decreasing their emotional component. A metamorphosis remaining in the same area is Jesus appearing as an eagle – again, a metamorphosis that is only temporary. Metamorphoses pointing to the left and/or upward include speaking animals, various punishments in hell as well as scatological jokes. Speaking (or articulate) animals undergo a metamorphosis: they usually gain these qualities when they meet the apostles – and most likely lose them when they depart. The difference between scatological jokes and hell is that bodies in scatological jokes change back to normal bodies, whereas bodies in hell do not.

To sum up, grotesque images activate mental modules that seem to be served by dedicated neural structures and shaped by evolutionary history, modules that are related to innate ontology and the emotions of fear and disgust. In addition, grotesque images involve often short-lived metamorphoses into or from shapes that are related to these mental modules.

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