Introduction

In 477/76 BCE, the Athenian state commissioned the sculptors Kritios and Nesiotes to cast a bronze statue group of the two “tyrannicides,” Harmodios and Aristogeiton. Several decades prior, in 514 BCE, the pair of lovers had slain the local tyrant Hipparchos, paving the way for a new political system that rested on the *eleutheria* (liberty) and *isonomia* (equality) of all citizens.¹ A commemorative statue to these founding heroes of the democracy—who were themselves killed in the immediate aftermath of the assassination—had been created by Antenor only a few years after the deed was done; however, this had recently been removed to Persepolis during the Persian sack of Athens in 480 BCE. The appearance of Antenor’s statue is unknown, while Kritios and Nesiotes’ version—also eventually lost—has been reconstructed through Roman copies and other secondary images (fig. 1).² Throughout the centuries of its existence, the monument remained in the Athenian Agora, the city’s central public space.

As depicted, Harmodios and Aristogeiton have been suspended in time, brandishing their swords in the pregnant moment just before the assassination. Linked to a temporal sequence in this way, the statue served as a kind of pars pro toto for this momentous event in Athenian history.³ But as it stood in the Agora, the monument was certainly more than an “excerpt” from a historical narrative. It was designed with a view towards an audience of the polis’ own citizens and quickly became a symbol of the Athenian “body politic”⁴—encouraging the citizens to visualize themselves as defenders of the new order and to internalize the same ideals that the tyrannicides had come to embody in the collective consciousness. At the same time, as several scholars have pointed out, the sculptors made the intriguing choice to omit Hipparchos from the

---

¹ In fact, according to Thucydides, the assassination was motivated by personal rather than political concerns (Thuc. 6.56–59).
² The illustration provided here is a modern plaster reconstruction based on information from multiple secondary sources (Rome, Museo dell’Arte Classica 161).
³ The foundational writer on the issue of suspended movement in the visual arts is Gotthold Ephraim Lessing (*Laocoon*, 1766). Lessing argued that movements and expressions are best captured before the climax of the action—the “pregnant moment”—allowing the viewer to “complete” the story by way of the imagination.
statuary group. This left the viewer quite acutely exposed to another mode of engagement with the acting figures: imagining himself in the position of their victim.

These two phenomenological attitudes—a sense of active identification and a sense of being threatened by the figures—would seem to represent very different, even competing ways of interacting with the same sculpture. Through what avenues might we substantiate that either or both responses were elicited in ancient viewers encountering the statue? And if both responses were indeed possible, how might they have been reconciled according to the context and function of the monument? In this paper, I will explore the issue of beholders’ responses not only to the Tyrannicides but to the wide range of ancient Greek statues that were posed in a similar way—brandishing a weapon and poised to attack—including, in particular, various representations of gods and goddesses. I will begin by surveying the origins and development of the weapon-brandishing motif in ancient art—the subject of my 2019 doctoral dissertation—before turning to the question of viewers’ responses to its manifestations in large-scale statuary.\(^5\) Some of this analysis will be based on traditional art-historical evidence, including textual and iconographic material. However, inspired by my recent work with David Freedberg, I will also attempt to integrate insights from neuroscientific research into the examination.

**The Weapon-Brandishing Motif in Greek Art**

In the textbook account, Kritios and Nesiotes’ Tyrannicides group is presented as a key exemplar of the transition from the Archaic to the Classical style in the genre of statuary. More specifically, it illustrates a strong break from previous conventions in the depiction of movement. Certainly, the dynamism of the figures is fresh; but the essential conceit of suspending the body in the act of attack is very ancient. In fact, it originates thousands of years before Kritios and Nesiotes cast their statue group, in the region of the Near East. During the Late Bronze Age, prodigious numbers of bronze figurines representing the storm-god and other deities were produced in the Levant and the surrounding areas (see fig. 2).\(^6\) The preferred pose here—with the left leg advanced and the right, weapon arm raised high over the shoulder—was drawn from the

---


\(^6\) The bibliography on the so-called “smiting god” is vast; as the starting point, see Domonique Collon, “The Smiting God,” *Levant* 4, 1 (1972), 111–34.
age-old, formulaic image of the pharaoh smiting the foes of Egypt in relief sculptures (see fig. 3)—but the Levantines were the first to isolate this corporeal type in the plastic media. Secondary images, among other evidence, indicate that these figures were also created in larger scales, serving as cult statues well into the Iron Age.

In the 8th century BCE—the period of Greece’s emergence from its Dark Ages—the so-called *lanzenschwinger* type, an armed male with the spear arm upraised, emerged in the genre of small-scale Greek bronze work (see fig. 4). Scholars have long recognized the similarity in pose between these and the comparable Near Eastern figurines, some of which have been found in Greek contexts; however, it is important to note that unlike in the Near East, where the weapon-brandishing motif was clearly associated with the storm-god and other divinities, there has been much debate as to whether the early Greek figurines portray martial gods, mortal warriors, or—most likely—both.

By the 6th century, figurines of spear-brandishing warriors and gods were clearly distinguishable from each other through attributes and other iconographic features, though all were rendered in essentially the same pose (see figs. 5–6). Many of these figurines were created as freestanding votive dedications, most prolifically from about the mid-sixth to the early fifth century, and they certainly flourished in dialogue with larger-scale statuary. Indeed, at least some of the figurines of divinities seem to have been very directly inspired by the cult statues of certain temples; several lost statues of this type can also be recognized in numismatic and other secondary images. There is less to suggest widespread representations of weapon-brandishing human warriors beyond the figurine genre before the Early Classical period. But the development of lost-wax bronze casting appears to have spurred the motif’s general popularity in

---

7 On this motif, see Emma Swan Hall, *The Pharaoh Smites His Enemies* (Munich: Deutscher Kunstverlag, 1986).
8 See e.g. the representation of worshippers approaching a statue of such a god in the repoussé band of a Hittite silver vessel of the 14th century BCE (Boston MFA 2004.2230). Cf. a cylinder seal, ca. 9th century BCE, in which the lightning-brandishing god Adad stands on a statue base (Berlin Staatliche Museen VA Bab 647).
9 These figurines were most often attached to vessels, but it is likely that a number of them were freestanding (the feet of several figurines bear piercings that suggest their attachment to lost bases rather than vessels). For a catalogue of this figurine type, see Michael Byrne, *The Greek Geometric Warrior Figurine* (Providence: Brown University Center for Old World Archaeology and Art, 1991).
11 The idea that some (potentially) freestanding figurines represent divinities was argued by Emil Kunze, “Bronzestatuetten,” *Bericht über die Ausgrabungen in Olympia* 4 (1944), 106–42. The idea is extended by Michael Byrne (as note 9 above; it is contested by Nassos Papalexandrou, *Visual Poetics of Power* (Lanham: Lexington, 2005), esp. 100–108.
12 E.g. a figurine from the sanctuary of Athena Alea at Tegea; see Brita Alroth, *Greek Gods and Figurines* (Stockholm: Almqvist & Wiksell, 1989), 46–48.
statues involving both mortal and immortal subjects. This is evinced not only in the famous Artemision god (ca. 480–460 BCE; fig. 7) but also in a number of marble bases from the Athenian Acropolis, the cuttings of which indicate that they were designed to hold commemorative statues of local warriors in active stances.¹³

The Tyrannicides group thus represents a continuity in concept but an expansion of the poses through which the weapon-brandishing motif was visualized: Harmodios slashes from above, while Aristogeiton’s sword arm is drawn back below the shoulder. From this point on, figures engaged in violence began to adopt more varied poses—in many cases modeled on those of the Tyrannicides—in both pictorial and plastic media, regardless of the weapon used. Nonetheless, perhaps owing in part to reasons of religious conservatism, the gods tended to adhere to the Archaic type, especially in figurines and statuary (for example, the sculptor of the Artemision god has only lightly modified the traditional pose). This type of active statue remained prevalent throughout the Classical and Hellenistic periods, employed both for honorific representations of military figures and for divine images, including large-scale votive and cult statues.

**Interpreting the Weapon-Brandishing Motif**

The weapon-brandishing pose—especially but not exclusively in its traditional form—was a visual motif that crossed cultural borders and survived through a vast time span. In this way, it may well be understood as what Aby Warburg called a “pathos formula”: a “superlative” of gesture, a corporeal configuration perfectly attuned to express an intensified inner condition.¹⁴

These configurations are formulaic and capable of transmission in large part because of their universality in human experience; little to no knowledge of culturally modulated “body techniques”—to use the term famously coined by Marcel Mauss—is needed to intuitively understand what the weapon-brandishing figure is doing.¹⁵ This is not to suggest, of course, that this pose lacked culture-specific symbolic associations within a given chronological and

---


¹⁴ Warburg’s exposition of the pathos formula is scattered throughout his writings. For a synthesis, see Ernst Gombrich, *Aby Warburg* (Chicago: University of Chicago Press, 1986), 242–44.

geographical context. As the classical philologist Maria Luisa Catoni has recently shown, ancient Greek authors (including philosophers and dramatists) were in fact very attentive to the meanings attached to body language and were aware of its codification into particularly “efficient” formulae in communicative media.\textsuperscript{16} These formulae, called schemata, were distinctive combinations of gestures and postures thought to be characteristic of more complex movements and were densely charged with cultural values bound up with gender, class, social role, and so on.

Although Catoni’s work does not specifically deal with aggressive poses, it seems clear that the traditional weapon-brandishing motif of the upraised arm can be understood as a schema and the later, more variable poses as a closely related group of schemata. Its expressive values will have been closely tied to Greek ideals of martial valor; the exertion of violence—primarily but not exclusively on the battlefield—was critically linked to status and power in ancient Greece.\textsuperscript{17} In a lyric poem of the mid-7\textsuperscript{th} century, Kallinos of Ephesos conjures an ideal vision of the warriors of his polis: “Let a man go forward with brandished spear, keeping clamped beneath his shield a stout heart once the battle is begun…for all the people long for the strong-hearted man when he dies, and while he lives he is like a demigod […].”\textsuperscript{18} The Greek literary tradition is steeped in this kind of language, in which the performance of violence endows men with nearly godlike power.

In narrative imagery, any number of figures could be shown in this schema. But only a select group adopts it in three-dimensional media, where the subjects usually appear in isolation. In this state, the gesture of brandishing the weapon—normally a “transitive” movement that demands an object—is left incomplete. The semantic power of the schema may help account for this rather curious conceit. The pose, with its rich cultural meanings, carried an expressive value well beyond its narrative function; indeed, it was ideally suited to the commemoration of warriors and tyrannicides, whose identities were in many ways defined by the act of attack. In the case of gods, there are indications that it served as a kind of “attribute” of power. The myths surrounding the Palladion are a case in point. The Palladion, a legendary statue of Athena supposedly created by the gods themselves, was strongly linked to this pose in the iconography

\textsuperscript{16} Maria L. Catoni, \textit{Schemata} (Pisa: Edizioni della Normale, 2005).
\textsuperscript{17} Hans van Wees, \textit{Status Warriors} (Amsterdam: Gieben, 1992).
\textsuperscript{18} Stob. 4.10.12, ll. 9-21; trans. adapted from B. Fowler, \textit{Archaic Greek Poetry} (Madison: University of Wisconsin Press, 1992), 67.
of ancient Greece. It was famous for its talismanic role in protecting the citadel of Troy—the Greeks needed to steal it before their assault could succeed—but also for inflicting a devastating, if somewhat delayed punishment on the Greek hero Ajax, who raped the Trojan princess Cassandra as she sought sanctuary at the statue’s knees (see fig. 8).

But for all the motif’s symbolic power, a semiotic approach only goes so far to elucidate its full visual potential. Even as the gesture remains frozen and enduring in the still image, it retains the trace of a full movement—its dynamis—stemming from the viewer’s recognition of the continuum of the movements involved in the action. In the case of a weapon-brandishing figure depicted alone, shown in the midst an otherwise transitive action, the pose’s dynamic element has perplexed some scholars; not infrequently, it has been concluded that the victim of the assault was reimagined by the viewer. Exemplary here is an assertion by Gloria Ferrari-Pinney on the solo, spear-brandishing image of Athena emblazoned on the oil-filled vessels given as prizes at Athens’ athletic games (“Panathenaic amphorae”; see fig. 9): “In Archaic art an action pose normally implies a narrative context. We should then understand the figure as an excerpt from a particular episode, a combat, and supply Athena, in our mind’s eye, with [a Giant] whom she will momentarily strike down, just as we understand that the blows of the Tyrannicides are directed at Hipparchos.” A similar tack has been taken in interpretations of figurines and statues of the fulminating Zeus—likewise assumed to be in the midst of a combat with Giant or another of his cosmic enemies.

These types of narrative associations certainly cannot be excluded from our interpretation of this statuary type. But it can also be supposed that the dynamism of the weapon-brandishing pose will have operated in more complex ways. For one, consider the statues of warriors and tyrannicides, which—as noted in the above introduction—invited a kind of identification

19 See several examples in the Lexicon Iconographicum Mythologiae Classicae, s.v. Athena and s.v. Aias II.
20 The story of Ajax’s rape of Cassandra before the Palladion was recounted in detail in the Epic Cycle (7th–6th century BCE); the destruction it wrought on the Greek fleet is referred to already in Homer’s Odyssey (8th century BCE). For an overview of the myths surrounding the statue, see Denyse Le Lasseur, Les déesses armées dans l’art classique grec (Paris: Librairie Hachette, 1919).
between subject and viewer. Could a statue with a dynamic pose have fostered an identification that ran deeper than that of a statue relying on semiotic mechanisms alone? And how might the omission of the victim have intensifi ed this? Another direction to pursue, also introduced above, is the reciprocal mode of engagement with the statue. If an observer felt entangled in the spatial matrix of the figure’s violent gesture, they became, if only symbolically, its potential target. But was this merely symbolic, or could this kind of interaction have evoked a sense of threat or even the emotion of fear? The remainder of this paper seeks to sort out these complexities surrounding the dynamism of the weapon-brandishing pose.

Identification via Dynamism?

Let us begin with the issue of identification. In the case of the Tyrannicides, the Athenians were quite explicitly invited to identify with the subjects of the statue, and while this could have been effective with a fully “narrative” group, the omission of Hipparchos served at least one important end. As Richard Neer has put it, “Their victim is not depicted but, instead, remains an ever-present absence: the war on tyranny has no end.” It is not clear to what extent viewers would have felt summoned to identify with a weapon-brandishing (or any other) god; the ontological distance between mortal and divinity may have mitigated against this, at least in most cases. On the other hand, a number of gods—including Athena and less frequently, a militaristic form of Apollo—can be understood in part as embodiments of the arms-bearing citizenry; both of these deities were represented as spear-brandishing warriors in several cult statues around the Greek world. Here, it may have been useful to promote a degree of identification between mortal and divinity, a sense of sharing in the city’s deified military power. The representation of the god or goddess as unattached to an explicit enemy rendered this power enduring and open-ended, applicable to the protection of the city on the broadest level.

The kinds of identification just outlined would seem to operate primarily on a cognitive level, by way of iconography and context. But the dynamism of the weapon-brandishing statues

---

25 Among other evidence, several major statues of Athena in poleis including Argos, Athens, Sparta, and more, were in Hellenistic/Roman times identified with the Trojan Palladion—an association surely retroactively applied to Archaic statues taking the spear-brandishing form; see Peebles 2019 (n. 5 above), 494–97. An Archaic cult statue of the spear-brandishing Apollo has been recently excavated from within a temple near Metropolis, Thessaly (*LIMC* Apollon, add. 1/pl. 256). On Apollo Amyklaios in Sparta, see below.
may have facilitated a form of identification at a very fundamental, even unconscious level. In a number of articles written since the early 2000s, David Freedberg has developed a neuroscientific approach to viewers’ “embodied simulation” of gestured bodies in images. The foundation for this approach is a class of brain cells called “mirror neurons.” These were discovered in the 1990s during experiments on macaque monkeys, first localized in a particular area of the ventral premotor cortex but later identified elsewhere in the brain.26 Mirror neurons fire in response to both the performance and observation of certain actions; their function has been interpreted as an observation/execution matching system granting to an observer a kind of intuitive, unconscious understanding of the actions and intentions of an observed congener. Upon the discovery of these neurons, it was immediately hypothesized that comparable mirror activity existed in humans, and a number of experiments have borne this out.27

Since research suggests that mirror neurons respond to actions that are only implied (as is the case with still images),28 Freedberg argues that embodied simulation is applicable to the viewing of pictures and sculptures of bodies in motion as well.29 This is held to account, at least in part, for the feeling of deep engagement and inward imitation upon viewing figures in a work of art: what he calls as-if responses that are not outwardly expressed—a kind of bodily empathy.

26 This discovery, which built on earlier, related research, was published in di Pellegrino et al., “Understanding Motor Events,” Experimental Brain Research 91 (1992), 176–80; a more thorough exposition was presented in Gallese et al., “Action Understanding in the Premotor Cortex,” Brain 119, 2 (1996), 593–609.
27 Rizzolatti et al., “The Mirror System in Humans,” in Mirror Neurons and the Evolution of Brain and Language, edited by M. Stamenov and V. Gallese (2002), 37–59. The theory was criticized by skeptics, since research on humans used broader brain imaging methods than the single-neuron unit recording that had led to the discoveries in monkeys. Recently, however, single-neuron studies have confirmed the existence of mirror activity in humans (Mukamel et al., “Single Neuron Responses in Humans during Execution and Observation of Action,” Current Biology 20, 8 (2010), 750–56. While early studies focused on human brain areas parallel to the original monkey “mirror neuron centers,” a holistic review of the evidence suggests that mirror neurons are more dispersed; see the useful summary in Keysers and Gazzola, “Social Neuroscience: Mirror Neurons Recorded in Humans,” Current Biology 20, 4 (2010), R353–54.
He further contends that this process may be bound up with our emotional responses to images, since movement and emotion are closely entangled on the neural level.\(^{30}\)

I would argue that embodied simulation is important to our interpretation of the type of ancient Greek statue in question. The dynamic gestures of these figures will have activated mirror activity and instigated an intuitive understanding of the action, even before a conscious response would be registered; although it is not entirely certain what kind of emotions the mirroring of the weapon-brandishing schema would entail, a range of feelings associated with aggression seems possible.\(^{31}\) This unconscious ("bottom-up") level of response would render a more explicit, cognitive ("top-down") invitation to identify with the depicted figure all the more compelling. Furthermore, the idea of embodied simulation adds another dimension to our understanding of why the omission of the victim was conducive to identification. If emulative responses to gestured bodies are indeed automatic, then the viewer of a "complete" statue group would not only react to the body language of the aggressor but also to that of the victim. By omitting the latter, the viewer’s mirror response would fixate entirely on the weapon-brandishing protagonist.

The visceral simulation of aggression would certainly be amenable to the more explicitly emulative function of the Tyrannicides and at least some of the statues of the weapon-brandishing gods. Perhaps the key example of such a divine image is the cult statue of a militaristic form of Apollo at Sparta, erected in the Archaic period and dominating the sanctuary of Amyklai, 8 km south of the city core.\(^{32}\) In Sparta’s earliest years, the capture of this proximal settlement had opened the way for the hegemony of the Spartan polity across a much broader region. I have argued elsewhere that the armored, spear-brandishing statue of Apollo Amyklaios was a kind of monument to Spartiate prowess as succored by the god himself, and a major festival occurring annually in the sanctuary— involving the entire Spartan body politic— reinforced an identification with this spirit.\(^{33}\) The rituals here included the singing of the paean,


\(^{31}\) Aggression is not an emotion but a behavior, and it is bound up with a variety of emotional states; see, among many others, Roy F. Baumeister and Brad J. Bushman, “Emotion and Aggressiveness,” in International Handbook of Violence Research, edited by W. Heitmeyer and J. Hagan (Dordrecht: Springer, 2003), 479–93.

\(^{32}\) The statue is now lost but was described by Pausanias (3.10.8) and is also recognized in secondary images. See Irene Bald Romano, “Early Greek Cult Images,” Ph.D. Diss., University of Pennsylvania, 1980, 99–114.

which also served as the battle hymn of the Spartans, in front the statue. At least for the Spartan men and boys in attendance, the god’s gesture was an invocation to imagine themselves playing their own part in maintaining the Spartan social order, through the same act of attack in which the god was represented in perpetuity. If this interpretation is accurate, the bottom-up processes of embodied simulation activated by Apollo’s pose were perfectly attuned to the top-down forms of identification that were encouraged by the statue’s iconography and ritual context.

**Threatened by a Statue?**

Beyond the ways in which the dynamics of the weapon-brandishing schema facilitated identification with the subjects of the statues, the omission of the victim adds another angle for investigation. When a viewer stood before such a statue, would they not understand themselves as the target of the violent gesture? Scholars have commented on this idea only briefly, in their analysis of major works like the Tyrannicides. To refer again to Neer’s commentary on this statue group: “…the Tyrannicides put the beholder in the place…of Hipparkhos. Everyone is a potential victim, every citizen a potential tyrant; the city must be forever vigilant.”34 He does not elaborate further, but one might ask whether the citizen standing in this position might feel a visceral shudder as he perceived the punishment that would befall him if ever he betrayed the democratic regime.

This question should also be asked of all other subjects configured into the weapon-brandishing pose, most notably the gods. The structures of ancient Greek religion, as also in other religious systems, incorporated a fearful side of divinity based ultimately in the gods’ potential to inflict harm—whether incidental or punitive—and abundant literary and epigraphic sources refer to an omnipresent fear of divine wrath in ancient Greek culture.35 Greek divinities were of course multifaceted beings, and it was an image that helped clarify which aspect of the deity was stressed in a given setting; it seems logical to suggest that a representation of a god in a violent pose might carry with it something of the fearful side of the divine—even if worshippers

---

34 Neer 2010, 82. Cf. note 24 above.
hoped that the force of the gesture would be directed elsewhere (namely, towards one’s enemies).

As to the phenomenological and emotional character of a viewer’s confrontation with a statue of a weapon-brandishing divinity, some scholars have denied that such an encounter could even take place—citing the fear it would elicit—and suggesting, for instance, that statues like the Artemision god must have been viewed only outdoors, from a distance.36 The exception here is Mark Stansbury-O’Donnell, who in the course of his argument that the same statue was viewed frontally within a temple, notes that the frightening experience of the deity’s power could have been primary to the function of the image.37 There is in fact bountiful evidence that such interactions were possible. For one, a number of Archaic vase-paintings show viewers approaching the spear-brandishing Athena before an altar (see fig. 10)—though the artist has not made clear whether the figure is a statue or epiphany (a conflation common in the Archaic era).38 Another kind of clue is found a group of Magna Graecian votive pinakes—apparently imitating local statues—that show the figure of the fulminating Zeus facing forward (see fig. 11);39 this is a very unusual perspective on the human body in Greek pictorial art, suggesting that worshippers’ encounters with these divinities were conceived of in terms of a direct confrontation.

If eliciting fear in the viewer was desirable to the function of the statue, perhaps one way to activate the emotion would have been through the explicit inclusion of a terrified victim—assuming that some level of mirror response would be activated in response to this figure (as well as to the aggressor). But the omission of the victim, setting up a direct confrontation between statue and beholder, may have prompted a different and perhaps more effective neural mechanism. Of course, no experiment has yet been designed to assess the brain’s reactions to this exact statue type. But disparate existing studies, when taken together, suggest that it could well have stimulated fear in the viewer—or if not the emotion proper, at least its substrates. A

---

36 Brunilde Ridgway argues that this (weapon-brandishing) type of statue was unacceptable as a cult image because its presumably frontal position in a temple would frighten worshippers; see The Severe Style in Greek Sculpture (Princeton: Princeton University Press), 62. Likewise, Petros Themelis suggests the type was limited to votives viewed outdoors or small cult statues that could be processed rather than approached directly; see “Cults on Mount Ithome,” Kernos 17 (2004), 143–54.
number of brain areas, including but not limited to the amygdala, are activated in response to a variety of threatening stimuli even before these are consciously recognized.\textsuperscript{40} It seems plausible that the schema of the attack, particularly if directed toward an observer, could be considered such a stimulus.

Much research has been devoted to the ways in which the brain responds to differential facial expressions—activating more strongly, for instance, upon the sight of photographs of threatening (angry/fearful) faces as opposed to neutral faces or faces with other expressions.\textsuperscript{41} Neural responses to the emotional modulation of body language have been much less thoroughly investigated than their parallels in facial expressions, but the studies that are available are potentially salient to our topic. Swann Pichon, Beatrice de Gelder, and Julie Grèzes conducted an experiment whereby participants were shown still photographs of congeners with both neutral and angry body language, with the faces blurred out.\textsuperscript{42} It was determined that several brain areas—including the amygdala and the fusiform gyrus—are more heavily activated upon the sight of the angrily gestured figures.\textsuperscript{43} The researchers suggest that “the activity in these areas may reflect the evaluation of emotionally laden stimuli and a reaction to threat emanating from the anger expressed in the bodies.”\textsuperscript{44} While the weapon-brandishing gesture cannot be neatly equated with “anger,” it may be supposed that some overlap should exist in reactions to a variety of gestures coded as threatening.

I have proposed above that the viewer’s position directly in front of a weapon-brandishing statue will have heightened its threatening character. Research on facial expressions indicates that the amygdala is activated more strongly when angry expressions are combined with a direct gaze.\textsuperscript{45} But in our case, it is the orientation of the body language that is pertinent. A


\textsuperscript{41} Mattavelli et al., “Neural Responses to Facial Expressions Support the Role of the Amygdala in Processing Threat,” \textit{Social Cognitive and Affective Neuroscience} 9, 11 (2014), 1684–89. It has also been observed that threatening faces are processed more quickly than neutral ones; see Schupp et al., “The Facilitated Processing of Threatening Faces,” \textit{Emotion} 4, 2 (2004), 189–200.

\textsuperscript{42} Pichon et al., “Emotional Modulation of Visual and Motor Areas by Dynamic Body Expressions of Anger,” \textit{Social Neuroscience} 3, 3–4 (2008), 199–212. The experiment included both static and dynamic images; both types heightened the activity in the same brain regions, though there were some variations observed as well. For another study focused on dynamic images, cf. Kret et al., “Similarities and Differences in Perceiving Threat from Dynamic Faces and Bodies,” \textit{NeuroImage} 54, 2 (2011), 1755–62.

\textsuperscript{43} Ibid. Other regions with heightened involvement for emotional body language include the EBA (extrastriate body area) and STS (superior temporal sulcus); the hippocampus was also involved in dynamic images.

\textsuperscript{44} Ibid., p. 210.

\textsuperscript{45} N’Diaye et al., “Self-Relevance Processing in the Human Amygdala,” \textit{Emotion} 9, 6 (2009), 798–806 (with earlier bibliography, pp. 798-99). Interestingly, fearful faces are processed more intensely when the gaze is averted,
recent fMRI/EEG study led by Laurence Conty and Julie Grèzes presented observers with photographs of actors showing the following variable characteristics: gazing at the viewer vs. positioned obliquely, pointing vs. not pointing toward the viewer, and making an angry vs. a neutral facial expression. The overall data showed that processing for facial emotion occurred very quickly in the amygdala, with the directional cues (pointing and gaze) integrated in right premotor cortex by 210ms. But the intensity of the neural response varied according to the specific combination of expression, gesture, and orientation; activity was greatest when the actor expressed anger, looked, and pointed toward participants. The fact that these cues are integrated in the motor system would allow the observer to expedite the preparation of an adaptive response to a directly self-relevant cue—in this case, another’s threatening intention toward themself.

Of course, there are significant differences between the subjects of these experiments and the type of statue in question. Notably—in keeping with Greek artistic conventions—almost every statue is sure to have retained a neutral facial expression (see, e.g., the Artemision god, fig. 7). The studies focused on anger, while the weapon-brandishing gesture is not necessarily to be linked to this particular emotion; the exact type of gesture of the upraised or drawn-back arm has not been assessed for its ability to instigate a threat-processing response. And the three-dimensionality and scale of statuary, as opposed to the photographs used as stimuli in the above experiments, must also be acknowledged. Only an experiment designed in pursuance to this exact type of statue could confirm the processes and pathways involved in viewers’ responses to it. However, the data is at least suggestive that a direct encounter with a weapon-brandishing statue would be perceived as threatening on a pre-cognitive level.

Whether or not these neural mechanisms would be consciously registered in terms of a fear response would probably be determined by multiple contextual and top-down processes. But they would certainly set the stage for the elicitation of fear upon a viewer’s confrontation with, say, a statue of the lightning-hurling Zeus. In fact, we have interesting written testimony of at least one statue provoking this very response. During his visit to Olympia, Pausanias stops to examine the statue of Zeus Horkios, at which athletes customarily swore an oath not to cheat at

possibly because an averted gaze combined with a fearful expression is more likely to indicate a self-relevant threat in the vicinity of the beholder; by contrast, an angry expression directed toward the beholder is clearly more suggestive of a self-relevant threat.

the games; of all the images of Zeus in the sanctuary, he asserts, this is “the one most likely to
strike terror into the hearts of sinners.” The traditional fulminating pose of the statue—said by
the periegete to hold thunderbolts in both hands—is confirmed in secondary images; in one of
these representations, found on the bezel of a gold finger ring of ca. 300 BCE, the god is again
rendered from the frontal perspective, as if from the perspective of an athlete engaged in the
ritual (fig. 12). The athletes—primed by the bottom-up mechanisms discussed above—were
thus forced to envision the possibility of personally experiencing the thunder god’s violent,
punishing power: a cognitive response perfectly in keeping with the purpose of the oath.

Conflicting or Complementary Responses?

My proposed model contends that at least two neural mechanisms were active in viewers’
responses to statues of weapon-brandishing figures. The mirror response, fostering identification,
would seem to be a baseline, expected to be active in most acts of viewing. But under certain
conditions, as when the statue was approached directly, the same pose that elicited mirror
activity in the beholder could have been coded as a threat, potentially leading to fear. Is it
feasible to incorporate both of these responses into our interpretive framework? I believe the
answer is yes, with a degree of caution. There is some research to suggest that emulative
responses—in this case referring to the phenomenon of mimicking facial expressions—can be
dampened by the social relevance of the stimulus in question (i.e. anger expressions directed at
the observer are perceived as signals of non-affiliative intentions and are thus less mimicked than
averted anger expressions). But for our purposes, the relevance of these studies—which do not
assess mirror responses to bodily actions—is questionable; indeed, embodied simulation, with its
role in intuiting intentionality, would likely aid in the recognition of the threatening character of
the pose in the first place. It would certainly be an interesting experiment to determine whether
the orientation of a threatening gesture could attenuate mirror activity, opening the way for a
more immediately aversive response. In any case, there is no reason to discount the possibility
that both types of responses could occur in turn or even simultaneously, at least on the pre-
cognitive level. On the conscious level, the viewer’s identity and knowledge about the statue will

50 Patrick Bourgeois and Ursula Hesse, “The Impact of Social Context on Mimicry,” Biological Psychology 77, 3
(2008), 343–52.
have modulated the experience of the encounter, prompting an alternative gravitation toward either identification or fear.

An illustration of this latter point involves another statue dedicated to a tyrannicide, this one in the city of Erythrai in Asia Minor. Sometime in the early Hellenistic period, a bronze statue was erected to honor a citizen, Philites, for slaying the local tyrant. This statue was not famous enough to have been described by our ancient sources, nor has it or even its base survived; nonetheless, the inscription by which we know of it provides key evidence toward the issue at hand. Philites’ honor had come after he led a democratic coup to overturn Erythrai’s oligarchic government. When the oligarchical faction briefly regained control, its members promptly turned their attention to the statue. Interestingly, what apparently rattled them the most was the figure’s stance (stasin) and sword, which seemed to be aimed towards them; they thus felt compelled to remove the weapon (which was of course restored when the democrats regained the city and set up the inscription detailing the events).

The inscription’s emphasis on the figure’s stance almost certainly indicates that he was suspended in an attack. Philites’ statue seems to have encompassed multiple modes of engagement, whereby the viewer’s political affiliation determined the ways in which the aggressive schema was processed. It is insightful that according to the inscription’s phrasing, Erythrai’s oligarchs understood the statue’s pose to be “directed entirely” at them (νομίζοντες καθόλου τὴν στάσιν καθ’ αὐτῶν εἶναι). It was only they who openly acknowledged the motif’s fearful potential; any visceral discomfort felt by a democrat will, according to our proposed model, have strengthened his feelings of identification with the figure of Philites—and the democratic ideology he embodied.

In the case of divine images, this dual potential involving both identification and fear could have been beneficial to the function of the statue as well. I have already noted how both Athena and Apollo represented the body politic of particular communities, with their weapon-brandishing poses embodying a certain power identified with the citizens. But there could be no way of eliminating the fearful aspect of the divine from these statues entirely, and a direct confrontation with a weapon-brandishing god—even one with whom a Greek identified on a civic level—will have been a fraught one. The capacity for violence that was visualized in the

51 L.Erythrai 503. For the full text of the inscription, translation, and discussion, see David Teegarden, Death to Tyrants (Princeton: Princeton University Press, 2014), 142–72.
gesture not only protected the city—it could strike within. It should be recalled here that Apollo had a very vengeful, violent streak, and his statue at Amyklai was set atop the tomb of a mythical Spartan for whose death he was somehow responsible. And no one confronting a spear-brandishing Athena could have forgotten what had happened when Ajax approached the Palladion in an irreverent way.

**Conclusion**

In this short paper, I have drawn together a vast array of material—an aggregative approach that will be considered methodologically problematic to some scholars—to address thorny questions around the possible phenomenological and emotional responses aroused by an intriguing statuary type in ancient Greece. In my past work, I have attempted to answer questions like these using largely traditional methods, thus requiring significant speculation. What I appreciate about the incorporation of the neuroscientific perspective is that it not only opens new interpretive avenues but also provides a plausible link between our own responses and those of the ancients—a way of understanding their relationships with images that is not possible, or at least not provable, by way of the standard approaches. Mirror neuron activity is exemplary of the way in which important aspects of our visual experience are of the bottom-up kind—common to us all before top-down, culturally conditioned factors come into play and inflect our responses (and “us all” here covers a wide chronological range; there is little to suggest that the most fundamental processes in our brains have changed significantly in the last millennia). I hope that further research will allow me to fine-tune my dealings with these bottom-up processes, even as much remains to be studied about the top-down aspects of encounters with particular statues in their unique settings.

---

52 The character of Hyakinthos and the reason for his death varies from myth to myth. In any case, Diana Burton has argued that some rituals of the Hyakinthia were conducted to placate Apollo’s threatening aspect within the city; see “God and Hero,” in *Honouring the Dead in the Peloponnese*, edited by H. Cavanagh et al. (Nottingham: Centre for Spartan and Peloponnesian Studies, 2010), 25–32.
Figures

Fig. 1
Tyrannicides Group
(modern plaster reconstruction)
Rome, Museo dell’Arte Classica
Original bronze, 477/476 BCE

Fig. 2
Bronze figurine of a deity from Ugarit
Paris, Louvre
Late Bronze Age

Fig. 3
Palette of Narmer (from Hierakonpolis)
Cairo, Egyptian Museum
cia. 3000 BCE
Fig. 4
Bronze warrior figurine
New York, Metropolitan Museum
c.a. 750–700 BCE

Fig. 5
Bronze warrior figurine
Private collection
c.a. 525 BCE

Fig. 6
Bronze figurine of Zeus
Munich, Glyptothek
c.a. 525 BCE

Fig. 7
Artemision God
ca. 480–460 BCE
Athens, National Archaeological Museum
**Fig. 8**
Attic black-figure amphora
(Ajax left; Athena/Palladion right; Cassandra behind the shield)
ca. 540 BCE
Oxford, Ashmolean

**Fig. 9**
Panathenaic amphora
cia. 560 BCE
London, British Museum

**Fig. 10**
Attic black-figure amphora
cia. 550 BCE
Berlin, Staatliche Museums

**Fig. 11**
Terracotta pinax
4th century BCE
Locri, Museo Nazionale
Fig. 12
Gold finger ring
(Zeus Horkios center; altar left; boar [to be sacrificed at the ritual] right)
ca. 300 BCE
London, British Museum