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Neuroscience and Hindu Aesthetics: A Critical Analysis of V.S. Ramachandran's "Science of Art"

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

NEUROSCIENCE AND HINDU AESTHETICS:

A CRITICAL ANALYSIS OF V.S. RAMACHANDRAN'S "SCIENCE OF ART"

A thesis submitted in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS

in

RELIGIOUS STUDIES

by

Logan Beitmen

2014

To: Dean Kenneth G. Furton
College of Arts and Sciences

This thesis, written by Logan Beitmen, Neuroscience and Hindu Aesthetics: A Critical Analysis of V.S. Ramachandran's "Science of Art," having been approved in respect to style and intellectual content is referred to you for judgment.

We have read this thesis and recommend that it be approved.

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ABSTRACT OF THE THESIS
NEUROSCIENCE AND HINDU AESTHETICS:
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Neuroaesthetics is the study of the brain's response to artistic stimuli. The neuroscientist V.S. Ramachandran contends that art is primarily caricature or exaggeration. Exaggerated forms hyperactivate neurons in viewers' brains, which in turn produce specific, universal responses. Ramachandran identifies a precursor for his theory in the concept of *rasa* (literally juice) from classical Hindu aesthetics, which he associates with exaggeration. The canonical Sanskrit texts of Bharata Muni's *Natya Shastra* and Abhinavagupta's *Abhinavabharati*, however, do not support Ramachandran's conclusions. They present audiences as dynamic co-creators, not passive recipients. I believe we could more accurately model the neurology of Hindu aesthetic experiences if we took indigenous *rasa* theory more seriously as qualitative data that could inform future research.

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CHAPTER I: V.S. RAMACHANDRAN'S NEUROAESTHETICS AND THE QUEST FOR UNIVERSALS

A. Introduction

The present study is a critical analysis of V.S. Ramachandran's theory of neuroaesthetics, including a critique of its use as a methodology for interpreting Hindu aesthetic experiences. Doctor V.S. Ramachandran, a prominent Indian-born American neuroscientist, is one of the founders of neuroaesthetics, or "the project of studying art using the methods of neuroscience," which has become a "hot field" in recent years (Noë, 2011). Ramachandran first outlined his theory of neuroaesthetics in a 1999 *Journal of Consciousness Studies* article, titled "The Science of Art: A Neurological Theory of Aesthetic Experience," which he co-authored with William Hirstein.

Doctor Ramachandran envisions neuroaesthetics as a grand, unified "theory of human artistic experience" (Ramachandran 1999 15). Ramachandran believes that certain works of art, including works of Hindu religious art, elicit universally positive responses in viewers. "The Science of Art" explains such responses in terms of "neural mechanisms" that have an "evolutionary rationale" (Ramachandran 1999, 15). If evolution has "hard-wired" mechanisms for appreciating art into the human brain, then such mechanisms, Ramachandran reasons, must be "universal" in all humans (Ramachandran 1999, 15).

Ramachandran appropriates terminology from classical Hindu aesthetic theory, namely the term *rasa* - the emotional “juice” or mood of an aesthetic experience (Ramachandran, 1999: 16). However, Ramachandran fundamentally misunderstands *rasa*. What he envisions as a grand, unified “theory of human artistic experience” (15) cannot even accommodate the Hindu aesthetic experiences that he considers most exemplary of his theory.

While other theorists have critiqued Ramachandran’s neuroaesthetics from the perspective of art history (Gilmore, 2006) and cognitive science (Noë, 2011; Hyman, 2010), this is the first study to address neuroaesthetics from a religious studies perspective. In addition to critically evaluating Ramachandran’s interpretation of *rasa*, I will also explore a larger question, namely, whether the deficiencies of Ramachandran’s approach are an unavoidable consequence of any attempt to understand Hindu aesthetics in terms of neuroscience or whether it is possible to conceive of a non-reductive approach to neuroaesthetics that could productively interface with art historical, anthropological and other methodological approaches to Hindu aesthetics that religious scholars currently employ.

B. Background

In the years since he published “The Science of Art,” Ramachandran has been unable to prove his theory of “artistic universals” by experimental means. He has, however, promoted neuroaesthetics on radio and television programs, in

public lectures, and in popular science books aimed at nonspecialists, such as his 2003 *The Emerging Mind*, his 2005 *A Brief Tour of Human Consciousness* and his 2010 bestseller *The Tell-Tale Brain*. Time has not moderated the biological reductivism of his position. According to Ramachandran, aesthetic responses are not subjective, nor are they dependent upon culture, language, learning or practice. They are biologically determined, and they are exactly the same for everyone. “The details [of artistic expression] may vary from culture to culture,” Ramachandran writes, but there is still “a common denominator underlying all types of art” (Ramachandran 1999, 16).

The “common denominator,” according to Ramachandran, is that works of art “enhance, transcend or indeed... *distort* reality” (Ramachandran, 1999: 16, emphasis in original). Thus, Ramachandran declares: “All art is caricature” (18). “This is not *literally* true,” he cedes, “but... it is true surprisingly often” (18, emphasis in original). It seems premature to elevate “caricature” (or “distortion”) to the status a scientific law, however, if the principle is “not *literally* true” for all works of art.

Ramachandran locates the principle of “caricature” in classical Indian art and aesthetics (16), as well as in “African art” (17), and he states that distortion in “Western art... had to await the arrival of Picasso” (16). By Ramachandran’s own account, then, “art” as such did not exist in the Western world prior to Picasso, since “caricature” or “distortion” is, for him, the primary marker of “art.” Ramachandran dismisses from consideration all pre-modern Western art, which would include, among other traditions, both classical Greek art and Renaissance

art. One could, of course, cite examples of distortion in Renaissance art - from Holbein the Younger's use of anamorphic projection in *The Ambassadors* to El Greco's expressive elongation of the human form throughout his oeuvre - but even these examples would not prove the universality of distortion in art, nor would they prove its integrality to art. After all, Ramachandran maintains that distortion is not simply an incidental feature of art but the very "purpose" of art (16). Other purposes - emotional, psychological, spiritual, economic, cultural, philosophical and so on - are either extraneous to the work, incidental to it or they are secondary by-products of the visual distortion.

In addition to distorting reality, Ramachandran believes that art must be "beautiful" or "aesthetically pleasing" (24). Thus, Ramachandran writes: "Our approach to art in this essay will be to begin by simply making a list of all those attributes of pictures that people generally find attractive" (16). Distortion or caricature is the first attribute of "attractive" art, but Ramachandran provides seven others, which together comprise his "eight laws of artistic experience": isolation, grouping, contrast, perceptual problem solving, abhorrence of coincidences, metaphor and symmetry (33, 34). Ramachandran's "laws" are "formalist," because they reduce art to its "formal" elements, that is, to the visual "form" that artworks take. As evidence of his formalist pre-occupation, Ramachandran refers to "form" in eleven of the eighteen pages of his article, using the word a total of thirty times. Even "metaphor," Ramachandran suggests, is related to formal mirroring or visual mimicry (30) and constitutes "a basic principle for achieving economy of coding rather than [being] a rhetorical device"

(31). Recognition of metaphor is not, for Ramachandran, a second-order, conceptual process that requires cognition and interpretation. Rather, it is embedded in the visual form of the artwork itself and can be instantly and directly grasped by any viewer: “the metaphor is effective even before one is conscious of it,” he writes (31). Together, these “eight laws of artistic experience” operate at an automatic, unconscious level. By hyperactivating neurons in the visual areas of the human brain, works of art produce a universal experience of “beauty.”

Ramachandran’s theory builds on three core assumptions. His first is that “universal rules or principles” govern the “logic of art,” and no amount of variation in cultural expression disrupts this underlying logic (Ramachandran, 1999: 15). His second proposition is that an “evolutionary rationale” explains the existence of the “universal rules” (15). Third, Ramachandran asserts that all works of art, because they obey universal rules, also activate specific “brain circuitry” common to all humans who have properly functioning brains (15). The “universal rules” of art co-evolved alongside human eyes and brains, Ramachandran suggests; therefore, aesthetic responses to visual stimuli are “hard-wired in our brains” from birth (19). In his 2011 book, *The Tell-Tale Brain*, Ramachandran summarizes his three core propositions as: “internal logic, evolutionary function, and neural mechanics” (Ramachandran, 2011: 201). Art obeys a universal logic which is the by-product of evolutionary processes and which is hard-wired into human brains at birth. On the basis of these three propositions, Ramachandran argues that aesthetic experiences may be understood entirely in terms of brain science.

The “purpose” of art, then, is “distortion,” because artists, by distorting the visual elements of reality, can “optimally titillate the visual areas of the brain” (Ramachandran 1999 15). Ramachandran chooses the verb “titillate,” with its strong sexual connotations, to underscore his belief that artists “employ ‘supernormal’ stimuli” (15) that do not merely activate brain cells but *hyperactivate* them in a way analogous to sexual arousal. Any work of visual art, Ramachandran reasons, contains a “superstimulus” that “titillates” visual neurons and causes the neurons to respond “even more vigorously” than they would to “normal” stimuli (33). The “titillation” of visual neurons is what produces the experience of beauty.

C. Formalist Universalism in Western Aesthetics

Ramachandran believes that the visual, material form of an artwork communicates directly with the viewer, and viewers require no special skills, knowledge or training to recognize its inherent “beauty.” Such communication can occur even without the viewer being consciously aware of it. Any person who sees a “beautiful” work of art will “like” it, even if that person claims otherwise. Thus, Ramachandran asserts that “our brains are hardwired to appreciate art,” be it a modernist “Henry Moore [sculpture] or a Chola bronze,” and even “people who claim not to like Henry Moore are closet Henry Moore enthusiasts” (Ramachandran, 2011: 213, 214). The notion that people are unaware of their own aesthetic preferences is Ramachandran’s most radical

position. In direct opposition to social constructionists who argue that artistic meaning, like all meaning, is constituted culturally and linguistically, Ramachandran argues that thought and language only serve to separate people from authentic aesthetic experiences: “[H]igher cognitive systems (such as the mechanisms of language and thought in the left hemisphere) ...[can] censor or veto the output” of those neurons responsible for the “primary” aesthetic response (213). Ramachandran claims that such a scenario “could in principle be tested with brain imaging,” although no experiments have yet succeeded in confirming his hypothesis (214).

The idea that “beauty” is universal, that the human response to beauty in art is also universal and that such responses are always direct and pre-cognitive: none of these are original ideas. They belong to a tradition of formalist, universalist thought in Western aesthetics that begins with Plato, continues through the aesthetic philosophy of Immanuel Kant and extends into the middle of the twentieth century with the work of influential art critic Clement Greenberg. In the twenty-first century, formalism has become an unfashionable position in the art world, but it continues to inform how artworks are displayed in galleries and museums (O’Doherty, 1976: 7).

The early twentieth-century critic Clive Bell exemplifies an especially “purist” strain of formalist universalism when he declares: “to appreciate a work of art we need bring with us nothing from life, no knowledge of its ideas and affairs, [and] no familiarity with its emotions” (Bell, 1914: 27). In other words, works of art from unfamiliar times and places may be judged entirely on the basis of their

so-called “formal” properties, even if one is ignorant of the moods and motivations that animated their making, knows nothing of the cultures within which, or against which, they were made, and has no awareness of the habits of viewership or bodily engagement that would have conditioned their reception. Artistic meaning is reducible to visual form alone, form is static, form contains and expresses beauty, beauty is universal, and formal beauty can be grasped directly by the eye. The particular brand of formalist universalism promoted by Clive Bell, Roger Fry and other Edwardian art critics prevented such critics from appreciating non-Western art on its own terms. As the twentieth-century philosopher of art, Arthur Danto, writes:

The Edwardians thought themselves advanced because formalism enabled them to see what [Roger] Fry called ‘Negro sculpture’ as beautiful [whereas Victorian critics had only seen it as ‘primitive’]. But they were wrong in thinking they had learned through formalism to see the beauty that was the point of African art. That was never its point, nor was beauty the point of most of the world’s great art. It is very rarely the point of art today. (Danto 36)

Ramachandran unconsciously reproduces a number of longstanding formalist, universalist tropes. The formalist paradigm is so deeply embedded and naturalized in dominant Western concepts of art, including Ramachandran’s, that its cultural and historical specificity often remains unacknowledged and overlooked. The assumption that all peoples at all times have viewed and interacted with art in the same way as contemporary museum-goers do - or, indeed, that all contemporary museum-goers approach art in the same way - represents a dangerous form of ethnocentrism. It is akin to the ethnocentrism of those religious scholars who presume that “belief” is paramount across all

religious traditions simply because it is often privileged by Protestant religious authorities. The contemporary scholar of religion, Catherine Bell, has labeled this paradigm “Christianity as the prototype” (Bell, 2006: 27). Bell maintains that “Christianity as the prototype” is one of “five paradigms” that continues to haunt scholars of religion, even many who endeavor to escape its influence (27). Whether the paradigm is “belief” or “beauty,” the projection of Western ethnocentric categories onto Hindu objects and practices can produce mistranslations.

Ramachandran compares his neuroaesthetics to Indian *rasa* theory, but his actual theoretical position is much more closely allied to Western traditions of formalist universalism than to *rasa* theory, which, unlike Western formalism, has always emphasized the role audiences play in shaping their own aesthetic experiences.

1. Immanuel Kant: The Universality of Beauty and Taste

Immanuel Kant was the first Western philosopher to propose that aesthetic judgments are *a priori*; that is, they arise instantaneously and intuitively, prior to conscious thought or reflection (Preziosi 75). Aesthetic judgment, for Kant, refers specifically to the determination of whether or not things are “beautiful” (75). For Kant, as for Ramachandran, aesthetic experiences are not reliant upon culture, language or cognition. We know beauty when we see it.

The crux of aesthetic judgment, for Kant, lies in the relationship between *norm* and *ideal*. Kant theorizes that both norms and ideals are universal; they are not contingent upon prior knowledge or processes of enculturation.

Using the male figure as an example, Kant illustrates what he means by *norm*:

Say, for instance, a person has seen a thousand full-grown men. Now if he wishes to judge normal size determined upon a comparative estimate, then imagination (to my mind) allows a greater number of these images (perhaps the whole thousand) to fall one upon the other, and, if I may be allowed to extend to the case of the analogy of optical presentation, in the space where they come most together, and within the contour where the place is illuminated by the greatest concentration of color, one gets a perception of the *average size*, which alike in height and breadth is equally removed from the extreme limits of the greatest and smallest statures; and this is the stature of a beautiful man. (Preziosi 76)

Here, Kant's *norm* is a mathematical average. He even states that the "same result could be obtained in a mechanical way, by taking the measures of all the thousand, and adding together their heights and their breadths (and thicknesses), and dividing the sum in each case by a thousand" (76). In Kant's example, the most "normal" man is also the most "beautiful" (77). The *norm* is the ideal.

Ramachandran uses similarly mathematical language when describing the process by which a political cartoonist would make a caricature of Richard Nixon: "[Y]ou take the mathematical average of all male faces and subtract this average from Nixon's face, and then amplify the difference" (Ramachandran 2011 207). Ramachandran describes the resulting image as one that is "even more Nixon-

like than the original,” and he suggests that viewers of such an image will experience what he calls a “peak shift”—a hyperactivation of visual areas of the brain. Since the “titillation of brain circuitry,” for Ramachandran, represents the highest goal of art, a grossly exaggerated or caricatured face represents his “ideal.”

Beauty, for Kant, is *normal*. Ramachandran argues the opposite. As Ramachandran writes: “All art is caricature” (Ramachandran 1999 18). The basis of aesthetic experience for Ramachandran is not normativity but exaggeration. The reversal is important. Kant’s theory of normative beauty cannot explain the exaggerated features of Indian sculpture except as unappealing aberrations. Ramachandran’s theory, similarly, cannot comprehend the naturalism of classical Greek sculpture as “beautiful.” What is common to both Ramachandran and Kant is the concept of an empirical, mathematically-derived norm against which abnormal, supernormal or ideal forms may be judged. Although they define beauty in opposing ways, Ramachandran and Kant both assert that standards of beauty are “universal.”

2. Clement Greenberg: Indian Art as an Addiction

Clement Greenberg, the mid-twentieth-century art critic famous for championing the work of Abstract-Expressionist American painters such as Jackson Pollock, Mark Rothko, Hans Hoffman and Barnett Newman, drew on both Kantian and Hegelian traditions of Western aesthetics. From Kant,

Greenberg inherits a belief in “the common, objective validity of aesthetic judgments” (Greenberg, 2003: 56). From Hegel, he inherits what he calls the “useful idea and ideal” that art can “purify” itself, and that the quest for “purity” can “generate aesthetic value and maintain aesthetic standards” (70).

Like Ramachandran, Greenberg is a reductive materialist who believes that the meanings of artworks are reducible to their material properties and that, ultimately, aesthetic experiences are the result of optical effects. It is on the basis of their reductive, materialist formalisms that Ramachandran and Greenberg both conclude that taste is “objective” or “universal.” If taste is indeed objective, though, it ought to be testable. Ramachandran believes that it is, but even Greenberg was fascinated by the prospect of measuring taste scientifically. Writing in 1972, nearly three decades before the publication of Ramachandran’s “Science of Art,” Greenberg considers the possibility that science may one day be able to prove the universality of aesthetic responses:

[P]sychologists have been trying by experimental methods to discover constraints in aesthetic appreciation that would enable them, presumably, to predict, if not describe, the operations of taste. Some habits of aesthetic perception or reflex have been ascertained. It has been discovered that most people, across most cultural divisions, prefer blue to other colors.... But nothing has been ascertained so far that... says anything really useful about the objectivity of taste. (Greenberg 56)

Like Ramachandran, Greenberg characterizes taste as a “reflex.” It is an instantaneous, involuntary response. However, Greenberg has difficulty reconciling “the objectivity of taste” with what he describes as his own personal “addiction” to Indian sculpture. As Greenberg writes:

An addiction does not necessarily mean a preference. Preferences in art depend, or should depend, on pure aesthetic judgment. My addiction to Indian sculpture does depend partly on that, but it also depends on a certain suspension or adulteration of aesthetic judgment. (Greenberg 105).

What Greenberg enjoys in Indian sculpture - namely, its “flamboyant detail and elaboration” - are qualities that he would otherwise condemn as “decadence” in a Western context (Greenberg 106). Rather than accept that art produced in different cultural situations may require different modes of viewership and analysis, Greenberg chooses to explain his interest in Indian art as an “addiction,” one that is dependent, in part, on a “suspension or adulteration” of his ordinary aesthetic judgment. Greenberg’s “pure” and “objective” taste remains ethnocentric, then, since it cannot explain the appeal of non-Western art - even its appeal to himself. Classical Indian sculpture may be “addictive,” but judged by Greenberg’s “universal” standards of taste its “greatness” can never match that of modern, Western artworks.

Taste, for Greenberg, is a reflex, but do our received cultural categories not operate as reflexes, too? Universalist approaches to aesthetic experience, such as Greenberg’s, always risk reifying and universalizing the taken-for-granted categories of one’s own culture.

D. Neuroaesthetics and Religious Studies

Neuroaesthetics has unique implications for the field of religious studies. Because Ramachandran explicitly presents his theory as a contemporary,

secularized re-imagining of classical Hindu theories of *rasa* (the mood or “juice” of an aesthetic experience), it is necessary to distinguish it from the earlier indigenous models. *Rasa* is an important concept in Hindu aesthetics, so new ways of imagining *rasa* have the potential to alter the way scholars interpret Hindu aesthetic experiences.

Ramachandran is the only neuroscientist who has made *rasa* a key component of a theory of aesthetics, and he is one of the few writers in any discipline to argue for the “universality” of *rasa*, or for its continuing relevance in the contemporary world beyond the cultural confines of South Asian aesthetics. For Ramachandran, *rasa* is a “universal” feature of art, Indian and non-Indian alike. Because *rasa* has a neurological basis, Ramachandran contends, it can explain even art that pre-dates it, including prehistoric European cave art and “the famous Venus ‘fertility’ figures” such as the Woman of Willendorf (Ramachandran, 1999: 18). The present study will examine these universalist claims in light of classical Hindu *rasa*. I will demonstrate, first, that Ramachandran misinterprets *rasa*. Additionally, however, I will show that there are interesting neurological implications in *rasa* theory that have yet to be explored by anyone, Ramachandran included. Ramachandran’s misinterpretation of *rasa* ultimately serves as a useful negative example of the unconscious prejudices and presumptions that must be avoided in any attempt to understand *rasa* theory neurologically.

More positively, I argue that Ramachandran’s neuroaesthetics has the potential to stimulate a valuable multi-disciplinary dialogue. Future research in

neuroaesthetics may yet offer valuable insights into the complex relationship between biology and culture that has hitherto eluded scholars in all disciplines. As the Delhi-based philosopher of science and art Sanil V commented, in response to a lecture V.S. Ramachandran gave in Thiruvananthapuram, Kerala, Ramachandran is “naïve” about art, but the dialogue he opens between science and art is “exciting” and “necessary” (Chekkutty, 2008). Sanil writes:

What is VSR’s contribution to aesthetics? Yes, much of what he says about art is pretty naïve – just as what Dawkins says about religion [is pretty naïve]. However, art is not VSR’s route to aesthetics. Aesthetics has two meanings. Aesthetics is a theory of art. It is also a logic of sensation. There isn’t much to learn from VSR on the former – in a direct manner. But VSR has exciting things to say about the latter. In my opinion, a materialist aesthetics of art must seriously worry about the nature of brain and sensations. Inputs from a non-reductionist and post-(naïve) empiricist neuroscience is necessary to disabuse the excessively culturalist and symbolist theories of art. (Chekkutty, 2008)

In other words, despite the many flaws of Ramachandran’s theory, it may yet remain useful in opening new spaces for cross-disciplinary dialogue. Ramachandran’s neuroaesthetics may be reductive, but I agree with Sanil V that “a non-reductionist and post-(naïve) empiricist neuroscience is necessary to disabuse the excessively culturalist and symbolist theories of art.” Ramachandran’s neuroaesthetics is the beginning, not the end, of this dialogic process.

In the field of religious studies, Manuel A. Vásquez similarly argues for “a flexible, non-reductive materialist framework to study religion” (Vásquez, 2011: 4). Vásquez endorses the use of “brain imaging and other experimental methods [from] cognitive neuroscience” in concert with traditional methodologies from

“anthropology, philosophy and history” (7). Like Sanil V, Vásquez wants to move religious studies beyond excessively culturalist and symbolist theories, such as the symbolicist reductivism of Clifford Geertz or the linguistic reductivism of Judith Butler, which reduce materiality, embodiment and practice to mere “texts.”

Vásquez’s “non-reductive materialist” approach is particularly useful for understanding Hindu *rasa* aesthetics. Whereas the pioneering Orientalist scholar Max Müller had once considered “the great Brahmanical sacred texts” to be “the core of Hinduism,” recent scholars such as Vasudha Narayanan have shifted the emphasis from textuality to performance and now study *rasa* as an “embodied” practice (Vásquez, 2011: 252). Hindu habits of “inculcating embodied *rasa*,” Vásquez argues, “are not mere scripts reenacted and displayed à la Geertz, but religion-in-the-making, transformed by the contested ways in which they are embodied and emplaced” (252). Reality cannot be reduced to culture, language or symbol, but neither can it be reduced to material and biological processes. Mind and matter interact in multilayered and reciprocal ways.

I believe we can more accurately model the neurology of Hindu aesthetic experiences if we take indigenous *rasa* theories seriously as qualitative data. Understanding the complex interplay between culture and biology requires new theoretical paradigms, and I intend the present study as a modest but constructive effort in that direction. It is valid to study Hindu aesthetic experiences from a neurological perspective but not by ignoring the socio-cultural and religious contexts that frame those experiences.

CHAPTER II: V.S. RAMACHANDRAN'S NEUROAESTHETICS AND CLASSICAL HINDU AESTHETICS

V.S. Ramachandran's neuroaesthetics is colored by Western formalist, universalist approaches to art. However, Ramachandran attempts to anchor his theory in the culturally-specific tradition of classical Hindu *rasa* theory. Ramachandran defines *rasa* as "the very essence of" a thing (Ramachandran, 1999: 16). This definition differs from classical South Asian understandings of *rasa*. I will, therefore, explore some of the key aspects of *rasa* theory found in the ancient *Natya Shastra* and in Kashmir Shaiva philosopher Abhinavagupta's tenth-century commentary on it, the *Abhinavabharati*, which are generally considered the two most influential works of *rasa* philosophy (Gerow, 1993: 584).

Rasa, which literally means "juice," appears as a technical aesthetic term in the *Natya Shastra*, a Sanskrit text of uncertain origin, attributed to the mythical sage Bharata Muni. The *Natya Shastra* is usually dated between the second century BCE and the second century CE, although the art historian Vidya Dehejia believes that it may not have emerged in its present form until as late as the fourth century CE (Dehejia, 1997: 21). In any event, all scholars agree that the text represents a compilation or synthesis of much older literary works, and earlier works are mentioned in the *shastra* itself (Bharata *LXXI*). "Natya" in India today refers primarily to forms of dance, so Dehejia, writing for a general audience, translates *Natya Shastra* simply as the 'Science of Dance' (Dehejia, 1997: 21). The treatise describes a combined practice of poetry, music, drama

and dance, though, so it might be more accurately rendered ‘Treatise on Musical Theatre.’ The performance theorist Richard Schechner calls it “a Sanskrit manual of performance and performance theory” (Schechner, 2001: 27).

Theories of *rasa* were later developed by Kashmir Shaiva philosophers, most notably Abhinavagupta in the ninth century CE, who used *rasa* as the basis for an aesthetically-focused theory of spiritual practice. Classical *rasa* is a performative, audience-centered theory that emphasizes each audience member’s empathetic engagement with the “juices” or “moods” (the *rasas*) of aesthetic experience. It is a “viewer-response theory of art,” as Vidya Dehejia explains, and “responsive viewers are called *rasikas* or connoisseurs” (Dehejia, 1997: 11). The original eight *rasas* listed in the *Natya Shastra* are the erotic (or romantic), the comedic, the furious, the tragic (or pathetic), the disgusting, the horrific, the heroic, and the wondrous (Bharata 102). To these eight, Abhinavagupta adds a ninth, that of quietude, peace or tranquility (*shanti*), which he considers the “great *rasa*” encompassing all the others (Abhinavagupta, 267). As the *rasa* tradition develops, sensitive and trained aesthetes, or *rasikas* (literally “juicers” or “juice-makers”), would attend performances of musical theatre (*natya*) to experience these eight (or nine) moods as fully as possible, and, in so doing, to explore the nature of consciousness itself. *Rasa* profoundly shaped the history and reception of art on the Indian subcontinent and continues to inform the work of many visual artists, dancers, choreographers, actors and film directors today. Thus, an understanding of *rasa*, Dehejia writes, “is clearly of

relevance to an appreciation of India's art," both classical and contemporary (Dehejia, 1997: 11).

A. Defining *Rasa*

As important as *rasa* is for understanding Indian art and aesthetics, it has been a notoriously difficult concept to define or translate. In a 2005 lecture, titled "Rasa and Taste: A Difficult Synonymy," which Umberto Eco delivered in Pondicherry, India, the semiotician notes that, while contemporary Western academics readily acknowledge that "there are many Western aesthetic theories," they often fail to appreciate the simple fact that "there are also many Indian aesthetic theories" (Eco 18). Even those theories that use the term *rasa* sometimes use it to express different concepts, or they theorize *rasa* in different ways. For centuries, Indian theorists have interpreted, reinterpreted and debated *rasa* in various ways, just as Western theorists have debated terms such as "taste," "form," "beauty," "aesthetics," "realism" and so forth. Such internal debates, however, have largely been overlooked by Western scholars, who have tended to oversimplify, homogenize and essentialize *rasa* in order to more easily compare it to Western aesthetic theories (18).

The oversimplification of *rasa* has been a perennial problem in comparative aesthetics, and the comparativist orientation itself has made it difficult for Western scholars to appreciate theories of *rasa* on their own terms. In a 2011 overview of the state of Indian aesthetics as a field of inquiry, the Delhi-

based scholar Parul Dave Mukherji announced her “startling conclusion,” after poring over “tomes of recent writings,” that “it was only under the rubric of comparative aesthetics that any kind of research on Indian aesthetics was carried out” at all (Mukherji, 2011). Such studies, rather than enlarging understanding of Indian aesthetics, have tended to level the differences among the multiple, separate and overlapping streams of Indian aesthetic thought (Mukherjee, 2011). Mukherji notes that even Indian scholars have been guilty of essentializing Indian aesthetics, since, especially in the 1950s and 60s when K.C. Pandey and A.C. Coomaraswamy dominated the discipline, “the kind of framework of comparative aesthetics subscribed to by the Indian scholars was still conditioned by colonial notions of aesthetics” (Mukherjee, 2011). Whether they emphasized the similarity of Indian aesthetics to Western theories or its differences, the unity of Indian aesthetic thought was rarely questioned.

Such comparative projects, moreover, produced tremendous confusion.

As Eco notes, somewhat humorously:

In 1965 I came across a book by Krishna Chaitanya, *Sanskrit Poetics* (London: Asia Publishing House, 1965) and I found that the concept of *rasa* is similar to the aesthetic conceptions of Diderot, Wordsworth, Keats, Baumgarten, Goethe, Tolstoy, Baudelaire, Poe, Lipp's theory of empathy, Valery, Rilke, Odilon Redon, Pierre Reverdy, T.S. Eliot, Suzanne Langer, Crowe Ransom, and some others that I don't remember. Recently, I found on the Internet that Priyadarshi Patnaik has published a study on the application of *rasa* theory to Modern Western literature, referring to Mayakovsky, Kafka, Camus, Conrad, Hemingway, Faulkner, Marquez, Eliot, Ionesco, Beckett, Lorca, Neruda and so on. (Eco, 2007: 7)

After exploring numerous ways of understanding *rasa* from a Western perspective, Eco concludes:

So far, I think we have identified at least fifteen different aesthetic phenomena that I list by translating them in terms of Western aesthetics. Rasa can thus be translated as Homeopathic Catharsis, Allopathic Catharsis, Pleasure for the Imitation of a Passion, Pleasure due to the Inference from a Represented Passion, Perception of the Universal, Disinterested Pleasure, Pleasure for an Objective Linguistic and Rhetorical Strategy, Mystical Identification with the Divine, Competence to be acquired by cultural training, Perception of the Implicit, Taste-for, Taste-of, Psychological Phenomenon, Unspeakable Poetic Emotion, High Intellectual Knowledge. All of them cover in some way an aspect of the notion of *rasa*, without exhausting its whole semantic space. Not only that, they can't be accepted all together, because if *rasa* is to be identified with one of them, then it cannot be identified with the others. (17)

Eco is therefore left with an unresolvable “perplexity” regarding *rasa*. “My perplexity,” he writes, “is an invitation to implement more comparisons and closer mutual confrontations in order to better define family resemblances, and, when it is indispensable, to recognize unfamiliar diversities” (19). Eco’s investigation of *rasa* demonstrates the difficulties that any “member of a given culture” confronts “when facing concepts and words of another one” (19). His humility in recognizing the difficulty of the task contrasts starkly with Ramachandran’s relative arrogance. In the same breath that Ramachandran states that *rasa* “has no literal translation,” he confidently asserts that “roughly it means ‘the very essence of’” (Ramachandran, 1999: 16).

Ramachandran is guilty here of reducing the polyvocal term *rasa* to a single, monolithic concept. A more specific problem with his definition of *rasa* as “essence,” though, is that “essence” carries with it certain metaphysical assumptions in Western thought that would have been alien to the classical Indian theorists of *rasa*. Kant believed that everything has an inner “essence”

that makes it unique from everything else, but such a belief is incompatible with the monistic cosmology of Kashmir Shaivism. Thus, Eco writes: “Abhinavagupta was not Kant. He was a mystical thinker... [who compared *rasa*] to the joy experienced when realizing Brahman, the identification with the Divine. Both in *Locana* and *Abhinavabharati* he says that aesthetic enjoyment is akin to the joy of tasting the supreme Brahman and that *rasa* is ‘the delectable savoring of the Self by the Self’” (Eco, 2007: 14).

The “euphoria” of mid-twentieth century scholars for exploring Indian aesthetics comparatively, alongside other “new avenues and alternative models to Eurocentric understandings of aesthetics,” was “short-lived,” according to Mukherjee, partly as a result of the “colonial” biases of the mid-century modern scholars, which became increasingly difficult to defend (Mukherjee, 2011). By the 1980s, with the ascendancy of postmodern and postcolonial discourses, the comparativists’ “euphoria” was largely “displaced by scholarly indifference” as researchers came to focus increasingly on “the celebration of cultural difference” and to question the older comparativist approaches (Mukherjee, 2011). Mukherjee notes, however, that a “new trend of global aesthetics” that stresses “universalism” and the “commonality of sense perception” has been gaining ground in the twenty-first century, partly “as a reaction to the last decade of the dominance of the cultural studies approach” (Mukherjee, 2011). Mukherjee situates Ramachandran’s “emerging field of neuroaesthetics” at the “extreme” edge of this new “universalist” movement; “extreme” in that its exclusively “biological” focus completely ignores “more conventional art historical

perspectives” (Mukherjee, 2011). Ramachandran’s new, biological universalism does not pave the way for a more sophisticated understanding of *rasa* aesthetics. It does not “implement more comparisons and closer mutual confrontations,” as Eco recommends. Rather, as Mukherjee suggests, it is a retreat into naïveté, a return to the arrogantly ethnocentric Western universalisms of the past.

To summarize Mukherjee’s argument: after the initial mid-century modern “euphoria” for Indian-Western comparative aesthetics, postmodernists questioned the value of the comparativist project and, as a result, Indian aesthetics as an area of study (comparative or otherwise) fell out of favor. Now, in the present period - *after* postmodernism, *after* postcolonialism - rather than rehabilitating scholarly inquiry into theories of *rasa* (and other streams of Indian aesthetic thought) in ways that still respect individual and cultural differences and do not merely reproduce the colonialist paradigms of the past, people like Ramachandran are seeking to move the entire aesthetic discourse backwards, Mukherjee believes, toward an “extreme” biological universalism. Ramachandran adopts the outdated, “colonialist” misreadings of *rasa* as “taste” or “essence,” except that now - rather than merely misrepresenting *rasa* as a single, unified concept - and one that he conflates with familiar Western aesthetic concepts - Ramachandran posits an absolute universalism of aesthetic experience across all cultural, geographical, linguistic and historical boundaries. Not only is Ramachandran’s *rasa* “essence,” but the essence of *rasa*, the essence of “essence,” becomes, for him, the essence of all art. At worst, the comparativists of the 1950s and 60s only erased differences between Bharata

Muni's *rasa* and Anandavardhana's *rasa* and Abhinavagupta's *rasa* - or between Indian *rasa* in general and various Western approaches to aesthetics. Ramachandran goes one step further and erases the differences between all aesthetic approaches, insisting that *rasa* (as he understands it) is fully compatible with contemporary neuroscience and that, because it is "scientific," it can, therefore, serve as a model to explain any work of art ever produced. In this way, Ramachandran misappropriates the term *rasa*, replaces its many traditional associations in Indian aesthetics with radically different associations imported from Western formalist aesthetics, then reasserts the "universality" of Western formalist values under the false pretense of valorizing indigenous Indian aesthetic thought. Ramachandran's *rasa* is the sheep's clothing that conceals the wolf of Western aesthetic universalism. His crypto-Western *rasa* risks devouring the very thing it claims to be.

Given the problems of cross-cultural translation generally, and given the notorious difficulty of defining *rasa* in particular, the present investigation does not seek a single, exhaustive, universal definition of *rasa*, nor do I believe that such a definition is possible. I accept that there have been many theories of *rasa*.

By necessity, though, I have confined my own primary source materials to Bharata Muni's *Natya Shastra* and Abhinavagupta's commentary, his *Abhinavabharati*, which are, without a doubt, the two most historically influential texts in all of *rasa* literature. As the scholar of religion, Edwin Gerow, writes, in his "Indian Poetics" entry for the *Princeton Encyclopaedia of Poetry and Poetics*,

Abhinavagupta's "name is today synonymous with Indian poetics," and "Abhinava's *rasa* theory has become canonical" (Gerow, 1993: 584). The *Natya Shastra* remains the earliest extant source for *rasa* theory, and Abhinavagupta's commentary is the earliest extant interpretation, one whose influence is hard to overestimate. Thus, if Ramachandran hopes to speak on behalf of *rasa* theory generally, his understanding of *rasa* must at least conform to that found in these two "canonical" texts.

B. The Misinterpretation of *Rasa*

Ramachandran misinterprets *rasa* in three main ways. First, he defines *rasa* as a purified, homogenized "essence," when, traditionally, the *rasas* are understood to be heterogenous: they are compared to mixed substances - juice cocktails, curries and alchemical potions - not to pure, discrete "essences." Second, Ramachandran associates *rasa* with "exaggeration" and "caricature," when traditional *rasa* aesthetics emphasizes the importance of subtlety and suggestion. Third, he theorizes *rasa* as an objective, material property of the art object itself, when, especially in Abhinavagupta's interpretation, *rasa* is expressly understood to be subjective and virtual, existing only in the mind of the tasting subject, or *rasika*. Thus, for Ramachandran, *rasa* is the simple exaggeration of the "essence" of a material form. Everyone who perceives the exaggerated form of an art object grasps its "essence" and responds in an identical way to it. For Abhinavagupta, by contrast, *rasa* is the active and dynamic response of the

tasting subject to a complex combination of sensory data. Because the data is complex, and because the response is equally complex and dynamic, the aesthetic experience may be different for each tasting subject. For these reasons, Abhinavagupta's *rasa* bears little resemblance to Ramachandran's *rasa*.

Ramachandran also ignores the spiritual, cosmological and cultural contexts surrounding *rasa*. He fails to grasp that Bharata's "path of *rasa*" is, in fact, a cultural or spiritual *path*. The anthropologist Franz Boaz famously defined "culture" as the act of categorizing the world (Boaz 1889), and, while subsequent generations of anthropologists have rightfully criticized Boaz for minimizing the non-conceptual aspects of cultural experience, his definition remains a pragmatically useful one for us. Ramachandran assumes that material reality can be measured objectively and that the "objective" world revealed by science exists independently of all cultural interpretations. Anthropologists, by contrast, have long realized that the categories by which people come to understand the world around them fundamentally shapes the worlds they experience. Therefore, it is wrong to assume, as Ramachandran does, that *rasa* is an objective category that pre-exists in the world. *Rasa* is a culturally-specific way of categorizing aesthetic experience. To understand "*rasa* aesthetics," we must also understand the cultural contexts in which *rasa* appears, the metaphysical assumptions that inform it, and the practiced modes of viewership and aesthetic engagement that condition people's experience of *rasa*. These cultural contexts, metaphysical assumptions and practiced modes of engagement may,

furthermore, change according to the relative historical moment and geographical location. Even in South Asia, we find different interpretations of *rasa* in the texts of different authors. Thus, after first detailing the three primary ways that Ramachandran misinterprets *rasa* - as an “essence,” as “exaggeration” and as a property of material objects - I will then explore some of the metaphysical assumptions and performative modes of engagement that would have conditioned classical Indian aesthetic experiences. By attending to the cultural specificity of *rasa* as it was performed and embodied by *rasikas*, I hope to demonstrate that the generic, universalized *rasa* imagined by Ramachandran is impossible. The appreciation of *rasa* is not an inborn talent but rather a set of acquired, practiced and embodied proficiencies. *Rasa* is experienced according to culturally-specific categories and habits of aesthetic engagement.

1. Rasa: An Essence or a Cocktail?

What is an aesthetic experience? Is it the direct, unmediated experience of the “pure essence” of a thing, so pure, in fact, as to be experienced in exactly the same way by every viewer? Or is it, rather, a complex cocktail, a heterogenous product of alchemy or gastronomy, whose own inherent complexity, when combined with the additional complexity of the many brains and bodies who “taste” the aesthetic cocktail, produces a potentially infinite array of interpretations? Ramachandran believes that aesthetic experiences are

simple, automatic and universal. Bharata Muni and Abhinavagupta, by contrast, understand *rasa* as complex, dynamic and subjective.

In “The Science of Art,” V.S. Ramachandran introduces the concept of *rasa* as follows:

The word ‘*rasa*’ appears repeatedly in Indian art manuals and has no literal translation, but roughly it means ‘the very essence of.’ So a sculptor in India, for example, might try to portray the *rasa* of childhood, or the *rasa* of romantic love, or sexual ecstasy, or feminine grace and perfection. (Ramachandran 1999 16)

As I have already noted, Ramachandran does not cite any sources, nor does his bibliography list a single text by a historian of Indian art. It is unclear, then, how he arrives at this particular understanding of *rasa*. His translation of *rasa* as “essence,” however, is highly misleading. *Rasa* has nothing to do with the disembodied purity of Hegelian or Kantian “essences” or with the material purity of Clement Greenberg’s “essential form.” *Rasa* is a sensual, emotional, physically embodied experience.

The Monier Williams Sanskrit-English Dictionary provides over thirty definitions for *rasa*. Of these, “the sap or juice of plants [or the] juice of fruit” is listed first. “Juice” is the most common, literal meaning of *rasa*. The English word *juice* also carries a number of additional associations - from “sexual fluid” to “alcoholic drink” - that are present in *rasa*, as well (Monier Williams: 869, 2). Thus, in both its literal and figurative senses, “juice” connotes far more of the range of meanings of *rasa* than “essence” and is, therefore, a much more faithful translation. *Juice* is not a perfect one-to-one translation, of course, and other aspects of *rasa*, such as its alchemical associations, require additional comment.

As a starting point, however, “juice” comes closer than any other English word to conveying the range of literal and metaphorical meanings of *rasa*. Unlike “essence,” which may suggest Western metaphysical realms of disembodied purity, *rasa*, like “juice,” belongs fully to the world of the senses. *Rasa* is sensuous, passionate and “juicy.”

Ramachandran continues his interpretation of *rasa* by associating it not only with “essence” but with “exaggeration” and “amplification,” as well. *Rasa*, for Ramachandran, is not merely an “essence” but an essence that has been captured and re-presented in an exaggerated way. As he explains:

Hindu artists often speak of conveying the *rasa*, or ‘essence’, of something in order to evoke a specific mood in the observer. But what exactly does this mean? What does it mean to ‘capture the very essence’ of something in order to ‘evoke a direct emotional response’? The answer to these questions, it turns out, provides the key to understanding what art really is. Indeed, as we shall see, what the artist tries to do (either consciously or unconsciously) is to not only capture the essence of something but also to amplify it in order to more powerfully activate the same neural mechanisms that would be activated by the original object. (Ramachandran, 1999: 17)

By defining *rasa* as “essence,” Ramachandran conflates the “essence” of aesthetic experience with “the ‘essential features’ of an image” (17). Rather than understanding *rasa* as mood or affect, Ramachandran understands *rasa* primarily as an abstraction of physical traits: the image’s “essential features.” Ramachandran even writes of “the ‘very essence’ (the *rasa*) of being feminine” and “the *rasa* of feminine poise and grace” evoked by works of Hindu sculpture (18). In classical Hindu aesthetics, however, *rasa* refers only to affective states

or moods, not physical traits. It has nothing to do with gender essentialism or with the supposed “essences” of bodies as objects.

Ramachandran’s example of “the *rasa* of romantic love, or sexual ecstasy” is one of the eight traditional *rasas*: the “romantic” or “erotic” *rasa* is known in Sanskrit as *śṛṅgāram*. Ramachandran’s other examples, however, have no basis in the classical texts. There can be no “*rasa* of childhood,” for example, or of “feminine grace and perfection,” because *rasa* in classical aesthetics refers only to emotional content. Because no two children have exactly the same childhood, and because the years of complex experiences associated with any particular childhood could never be reduced to a single, unchanging “mood,” it is nonsensical to speak of a “*rasa* of childhood.”

Additionally, a *rasa* is not an “essence,” because it cannot be defined as the concentration (or “exaggeration”) of a single, “pure” substance. Rather, it is the combination of many substances, many sense-impressions, which produces a richly textured, emotionally resonant experience larger than the sum of its parts. *Rasa* is additive, not reductive. As the scholar R.S. Bhatnagar writes: “Bharata describes it [*rasa*] through the metaphor of a mixture: *rasa* [is] a cocktail, the savor produced through mixing different ingredients into a single drink” (Bhatnagar 112). Bharata also describes aesthetic experience as the savoring of “cooked food... which has been prepared from various spices and other articles” (Bharata 106). States such as love and sorrow are like ingredients in a curry; although they are mixed, “learned people” can distinguish the individual flavor of each emotion while at the same time enjoying their creative

combination (106). Bharata's *rasa* aesthetics is literally an aesthetics of "mixed" emotions, not "pure" essences.

Moreover, Bharata Muni declares that the various *rasas* (the "moods" experienced by the audience members) and the *bhāvas* (the "states of being" portrayed by the actors) "cause one another to originate (*bhāvayanti*)"--that is, they fill, saturate, seep into or "become" one another, "just as a combination of spices and vegetables imparts good taste to the food cooked" (107). The *rasas* do not produce the *bhāvas*, nor do the *bhāvas* produce the *rasas*. Instead, they "cause one another to originate." This is an absolutely remarkable passage. From any Western teleological perspective - Protestant, Hegelian, Marxist, or, in Ramachandran's case, the teleology of "purposeful" biological evolution - the concept of mutual co-creation is unthinkable. From a Hindu perspective, however, it is perfectly acceptable. The *Kurma Purana*, for instance, tells the story of how Vishnu and Brahma create one another. As Wendy Doniger summarizes the myth: "Each says to the other, 'You were born from me,' and both of them are right. Each god sees all the worlds and their inhabitants (including both himself and the other god) inside the belly of the other god" (Doniger, 2009: 102). There is not necessarily a "first cause" that catalyzes the process of creation, and the cosmos does not necessarily unfold in a simple, unidirectional fashion. Rather, reality is a dynamic, interactive process of mutual co-creation, and the way one experiences reality depends on one's perspective or on one's embodied positionality. In the *Natya Shastra*, the emotional states (*bhāvas*) portrayed by the actors do not simply create the *rasas* that the audience

members experience, nor do the *rasas* simply create the *bhāvas*. Rather, the actor-audience relationship is one of mutual co-creation. Just as the flavors of the spices and vegetables in a curry dish seep into one another as it stews, so do the *rasas* and the *bhāvas* seep into one another. The flavor of a curry is not created by any single ingredient but by the blending together of many ingredients. The aesthetic experience, like all experiences, is one of dynamic interactivity. “There can be no *rasas* without the *bhāvas* and no *bhāvas* without the *rasas*,” Bharata states; rather, “they are produced from their mutual relation” (Bharata 107).

Such language, which valorizes hybridity, multiplicity, indeterminacy and the blurring of boundaries between self and other, may strike contemporary readers as prototypically postmodern. It recalls, for instance, Deleuze and Guattari’s humorous introductory statement to *A Thousand Plateaus*: “The two of us wrote *Anti-Oedipus* together. Since each of us was several, there was already quite a crowd” (Deleuze, 1987: 3). Here, Deleuze and Guattari question the concept of a stable, unitary authorial voice, and the statement seems deliberately, humorously provocative. The *Natya Shastra*, however, introduces the above-listed statements about the audience members’ mutual co-creation of aesthetic experiences, not as humorous provocations, but as “traditional couplets” (Bharata 106). The author of the *Natya Shastra* does not view such statements as radical, provocative or subversive. They are expressions of “traditional,” normative, received wisdom.

Bharata's image of moods and emotions seeping into one another as spices in a stew also recalls the language of Salman Rushdie's narrator in *Midnight's Children*, who declares: "Things - even people - have a way of leaking into each other... like flavors when you cook" (Rushdie, 1980: 44). Throughout *Midnight's Children*, Rushdie compares the writing process to "chutnification," the pickling of chutney (643), a complex culinary process whose "alchemy" is unpredictable, producing pickles (works of fiction) that "may be too strong for some palates" but which "are, despite everything, acts of love" (644). Like Rushdie's concept of fiction as "chutney," Bharata's *rasas* are complex mixtures that are experienced differently by different audiences. It would be anachronistic to presume a simple equivalence between these two concepts, even if Rushdie may have been influenced by the classical theory. I contend, however, that *rasa* has more in common with Rushdie's postmodern "chutneys" than with the pure, undiluted "essences" to which Ramachandran alludes.

Each of the *rasas* was understood to be a complex mixture in itself, but the *rasas* were also combined with one another to produce even more complex experiences. "Just as the garland-maker makes garlands from various kinds of flowers," declares the *Natya Shastra*, "the drama should be produced similarly by gestures of different limbs, and by the *rasas* and the *bhāvas*" (Bharata 509). Contemporary Bollywood films are often characterized by the *masala* approach, the blending of many moods and genres within a single cinematic work. In a similar way, ancient Indian *natya* producers sometimes aspired to create works that could evoke a satisfying blend of all eight *rasas*. The *rasas* were never

meant to be seen in isolation - as Ramachandran's "essences" are, or as individual modernist paintings spotlighted on pristine, white museum walls are. Rather, they were always meant to be experienced in relation to, and in concert with, other *rasas*.

In part, this was because the ancient theorists recognized the diversity of audiences and advocated a kind of theatre that would meet each audience member on his or her own terms. As the *Natya Shastra* states: "Young people are pleased to see [the presentation of] love, the learned a reference to some [religious or philosophical] doctrine, the seekers of money [topics of] wealth, and the passionless [i.e., those who have overcome their passions] in topics of liberation (*mokṣa*)" (Bharata 520). Different people come to the theatre for different reasons, so producers should provide "something for everyone," as it were. Although the *Natya Shastra* also divides audience members into "superior," "inferior," and "middling" types (520), playwrights and producers were not meant to make dramas only for the "superior," cultured *rasikas* but for everybody: "The people have different dispositions," the *Shastra* states, "and on their dispositions the drama rests. Hence, playwrights and producers (*prayoktr*) should take the people as their authority" (Bharata 510). Theatrical performances encompassed the full range of humanity and gave poetic and material expression to the complexity of "human character with all its different States [*bhāvas*]" (509).

Certain blends of *rasas* had powerful synergistic potential. The erotic or romantic *rasa* (*śṅgaram*), for example, was considered necessary to prepare

audiences for the comedic (*hāsyarṇ*) *rasa*, which could not provoke maximum laughter without the pre-establishment of a libidinal subtext. As the *Natya Shastra* states: “The comic arises from the erotic... [and] a mimicry of the erotic is called the comic” (Bharata 107). Given that one of the earliest surviving Sanskrit plays, Shudraka’s *Mricchakatika*, is a sex comedy, it is clear that this erotic-comedic “flavor profile” was not merely a subject of philosophical speculation but a practiced genre of early *natya*.

The erotic *rasa* was also combined with other moods, such as *karuṇam*, or the *rasa* of pathos or tragedy. The *Natya Shastra* considers how eros and pathos seep into one another in certain circumstances, as when lovers find themselves separated:

Now it has been asked, ‘If the Erotic Sentiment has its origin in love, why does it [sometimes] manifest itself through pathetic [or tragic] conditions?’ [In reply to this] it is said, ‘It has been mentioned before that the Erotic Sentiment has its basis in union as well as in separation. Authorities on *ars amatoria* (*vaiśika-śāstra*) have mentioned ten conditions [of the persons separated from their loved ones]. (Bharata 109)

So, “love in separation,” which is a combination of the erotic and pathetic *rasas*, also reflects the “ten conditions” of separated lovers. It is a richly layered emotion. We should also note that this passage presents yet another example of mutual co-creation. The erotic *rasa*, Bharata tells us, “has its basis in union as well as in separation.” It is not that erotic love begins in union and then becomes separated, nor does it begin in separation and later unites. Rather, union and separation, as interactive processes, co-create the erotic-romantic sentiment.

The themes of “love in union” (*sambhoga*) and “love in separation” (*vipralambha*) are writ large in the history of Indian art and aesthetics. These two types of love have also influenced religious thinkers, including those of the *bhakti* (devotional) schools, who have tended to regard “love in separation” as the more meaningful or “higher” love. According to the scholar A.N. Chatterjee, Gaudiya Vaishnav philosophers developed an entire metaphysical system based on these two kinds of love: they asserted, first, that “one must love God in intimate union, which is called *sambhoga*, [but] on an even higher level, one must learn to love God in separation, which is called *vipralambha*--[because] this [separation] allows one to truly appreciate union” (Rosen 17).

In these *rasa*-influenced traditions, the quality of love does not suffer for its being “contaminated” by pathos. Rather, the pungent and painful flavors of *karuṇa* bring out the depth and richness of love itself. Much like the “acts of love” Rushdie associates with chutney-making (and fiction-writing), the types of love expressed by classical Indian poets and playwrights have always been “mixed” emotions. The comic *rasa* seeps into the erotic *rasa*, which seeps into the tragic *rasa*, and so on. As the *Natya Shastra* succinctly states: “the Erotic Sentiment includes conditions available in all other Sentiments” (Bharata 109). Its own flavor, like that of a complex chutney, is tinged with the flavors of all other *rasas*. It is a mistake, therefore, to conceptualize the *rasas* as pure “essences.” They are fluid and changeable mixtures that have the ability to “seep into” or “become” one another. In short, a *rasa* is a cocktail or a chutney, not an essence.

2. Subtlety, Not Exaggeration

I will now turn to the second major mistake V.S. Ramachandran makes in his approach to *rasa*. Not only does he translate *rasa* as “essence,” but he further conflates “essence” with “exaggeration,” “amplification,” “caricature” or “distortion”: “[W]hat the artist tries to do (either consciously or unconsciously),” Ramachandran writes, “is to not only capture the essence of something but also to amplify it” (Ramachandran 1999 17). For Ramachandran, “amplification” or “caricature” is the primary means by which artists express “the very essence of” a thing. “This leads us,” Ramachandran writes, “to our first aphorism: ‘All art is caricature’” (18).

“Caricature” is both the means of expression and the expressive *end* of art. It is, for Ramachandran, the very “purpose of art”: “The purpose of art, surely, is not merely to depict or represent reality - for that can be accomplished very easily with a camera - but to enhance, transcend, or indeed even to *distort* reality [emphasis in the original]” (Ramachandran 1999 16). Ramachandran announces “the purpose of art” with great certainty, but his certainty is unwarranted. For one thing, his criticism of representation (or mimesis) as a valid motivation for art-making is anachronistic, given that cameras are a very recent technology in terms of world art history. The art historian EH Gombrich, whom Ramachandran cites in “The Science of Art,” wrote a brief but highly critical response to Ramachandran’s article, which was later published by the same journal. Gombrich’s main criticism is that Ramachandran’s “notion of ‘art’

is of very recent date, and not shared by everybody” (Gombrich, 2000: 17). “Even a fleeting visit to one of the great museums,” Gombrich writes, “might serve to convince the authors [Ramachandran and Hirstein] that few of the exhibits conform to the laws of art that they postulate” (17). The artists of ancient India did not face a choice between photographing a person or sculpting their portrait in stone. Furthermore, the advent of cameras *did* change the ways in which modern artists understood their “purpose,” and it did so in two contradictory ways: it freed them from mimesis as an obligation, but, at the same time, it gave them a new tool by which to pursue notions of mimetic representation all the more. The mere fact that cameras today can “very easily” represent “reality” should not lead us to the false conclusions that art has never been about representing reality or that the mimetic function of art does not remain important to some artists even now, in our image-saturated world. I further object to Ramachandran’s insinuation that unaltered photographs (sometimes described as “pure” or “straight” photographs) cannot be “art,” and I consider his presumption that photographs always reflect “reality” in an objective or undistorted way equally naive. Even more damaging to Ramachandran’s argument, however, is the fact that even “ancient Indian art” was not primarily about distortion. The kind of theatrical representation described in the *Natya Shastra*, for instance, and expounded upon in Abhinavagupta’s commentary, was an art of subtlety and suggestion, not gross exaggeration or distortion.

The types of movements and gestures systematized in the *Natya Shastra* are incredibly subtle. They are not exaggerated. Unlike Greek theatre, which was performed in massive outdoor amphitheatres and thus required actors to project their voices to be heard and to use large, simplified gestures to be seen, Indian theatre was meant to be performed in relatively small, indoor spaces, since, as the *Natya Shastra* declares: “anything recited or uttered in too big a playhouse will [lose] euphony due to enunciated syllables being indistinct” (Bharata 20). Additionally, the *Natya Shastra* cautions that “when the playhouse is very big, the expression on the face [of actors]... will not be distinctly visible” (Bharata 20, 21). For these reasons, the maximum playhouse length recommended by the text is “sixty-four cubits” (or approximately ninety-six feet), with half of this space devoted to the main stage and backstage areas, leaving no more than forty-eight feet of space, which is half the length of a modern basketball court, for the audience (Bharata 22). An alternative playhouse design described in the *Natya Shastra* is half as long as this, with no more than twenty-four feet of space reserved for the audience (Bharata 30). Audience seating was designed “in the form of a staircase,” whereby “successive rows of seats should be made one cubit higher than those preceding them” to allow for maximum visibility (Bharata 31). Both in terms of seating arrangements and total spatial dimensions, the playhouses described in the *Natya Shastra* are similar to modern black box theatres. Intimate spaces such as these were necessary for the spectators to see, to hear and to connect psychologically with the actors.

To appreciate the extreme subtlety of the psychologically-loaded physical gestures that Indian actors were expected to master, and that audience members were expected to recognize, one need only consider that the *Natya Shastra* details thirty-six separate types of “glances” (Bharata 152). These glances consist not only in making parts of the eyes, eyelids and eyebrows move in various ways or, in some cases, causing the eyes to tear up or water, but they even involve such impossibly subtle gestures as making one’s eyeballs appear “slightly swollen,” making one’s eyelashes appear “slightly curved at the end” or making the “ends of the eyes” appear “pale” (154, 155). Each of the *Natya Shastra*’s thirty-six glances represents a combination of several such minute, eye-related gestures. In *madira*, for instance, the glance “representing light intoxication,” the “middle of the [actor’s] eye is rolling, the ends of the eyes are thin, the eyes are bent, and the corners of the eyes are fully widened” (157). Such descriptions suggest that ancient Indian actors were trained to reproduce some of the subtlest gestures imaginable, not large, caricatured ones. Performances were intimate rather than grand. In the language of modern cinema, one might say that the ancient Hindu theatre was “all about the close-up.” Even in movie acting, how many contemporary actors would consider altering the relative curvature of their eyelashes as a marker of their characters’ emotional states?

Acting was not the only aspect of ancient Hindu theatre characterized by subtlety. Playwrights, too, were expected to master a great number of literary devices by which emotions could be expressed indirectly by means of

suggestion, concealment, irony, wit, understatement and other such devices. For example, playwrights might sometimes have a character express his or her own “secret desire of the heart by a pretense of referring to somebody else’s condition” (Bharata 307). This technique, Bharata informs us, “is called Indirect Expression of Desire (*manoratha*, lit. object of the mind)” (307). Many such literary devices are listed in the *Natya Shastra*. The aim of each device is indirect expression. Sometimes expression is so indirect that the majority of the content of a character’s thoughts are communicated silently, as in the following case: “When from the mere commencement of a subject the rest of it is comprehended without being actually expressed in words, it [is an instance of] Semi-uttered Expression (*anukta-siddhi*, lit. unuttered achievement)” (Bharata 308). Indian audiences were expected to recognize the use of these devices and to “fill in” the unexpressed narrative and emotional content within their own minds. Indian theatre did not condescend to its audience but expected the audience, rather, to remain fully engaged in the active processing of the theatrical information presented.

The notion of poetic expression as subtle and indirect had an enormous impact on later aesthetic theories. The Kashmir Shaiva philosopher Anandavardhana, for instance, declared that *dhvani* (which means “resonance,” “hint” or “suggestion”) “is the soul of poetry” (Premnath 11). This “theory of suggestion” directly influenced Abhinavagupta, whose *Locana* is an important commentary on Anandavardhana’s major work, the *Dhvanyaloka*. These later texts are more philosophically and academically rigorous than Bharata’s, which

was, after all, primarily a work of dramaturgy, not philosophy; however, the underlying notion that *dhvani*, or “suggestion,” is the best means of poetic expression, is already present in the *Natya Shastra*, and we see it expressed in Bharata’s repeated insistence on subtlety over exaggeration, both for actors and for playwrights.

Not only were playwrights expected to incorporate “suggestion” into their plays, but the actors, in order to speak the playwright’s lines in an equally indirect or “suggestive” way, were expected to make use of various theatrical conventions, such as stage whispers, asides, soliloquies, the use of indistinct speech (when portraying characters who are half-asleep, for example) or the device of “speaking to the sky” when addressing characters not visible on the stage (Bharata 503, 504). Many of these conventions were used by Shakespeare, too, and are still in use in the modern, Western theatre, so it would be a mistake to assume that, by virtue of these techniques, ancient Hindu theatre was necessarily more “artificial” or “exaggerated” than other kinds of theatre. Moreover, it would also be a mistake to imagine that those elements of artifice or exaggeration that do exist in *natya* necessarily constitute the most essential or important aspects of the theatrical experience, that the “soul” of Indian art is not “suggestion” but, as Ramachandran believes, “caricature.”

Yes, clearly, there are elements of artificiality and exaggeration in early Hindu musical theatre, just as there are in other kinds of theatre. *Janāntika*, for example, or what is known in the West as the “stage whisper,” is a theatrical convention whereby “out of necessity persons standing close by are [supposed]

not to hear what is spoken to someone else” (Bharata 504). It is difficult imagine that an amplified “whisper” loud enough to be heard by audience members could not also be heard by characters “standing close by.” Ancient audiences were willing to suspend their disbelief and accept stage whispers as a theatrical convention just as modern audiences do. Does this mean that a stage whisper conveys “the very essence” of whispering - by amplifying or exaggerating it? Is a loud whisper more “whisper-like” than a soft one? Moreover, is the “purpose” of a scene containing a stage whisper to “caricature” the act of whispering? Is an appreciation of the “essence” of whispering the highest aim of the *rasika*? No. Despite its reliance on stylized theatrical conventions, ancient Hindu theatre valued subtlety and suggestion over direct statements or exaggerated expressions of emotions. Whether a line was spoken in a stage whisper or delivered “to the sky,” its deeper meanings were those that were not spoken at all. And, for the Kashmir Shaiva theorists in particular, “suggestion,” not exaggeration, was the soul of art.

The types of “speech, gait, movements and gestures” detailed in the *Natya Shastra*, while much more subtle than is often realized, are still formulaic. Stanislavsky’s “Method” encourages actors to inhabit their characters’ psyches. The *rasa* approach, by contrast, expects actors to master an exhaustive repertoire of “speech, gait, movements and gestures” which mimic the outward appearance of genuine psychological states but without the actors necessarily “feeling” them. The actors were trained, rather, to reproduce in exhaustive detail the external signs, or “consequents,” associated with the various states. Despite

its formulaic approach, however, the *Natya Shastra* still regards acting as a mimetic art. The gestures may be formulaic, but they are not exaggerated. The actor still “becomes” the character. Additionally, it should be noted, the *Natya Shastra* does not advocate an exclusively formulaic approach to acting. Direct observation from life is also recommended. Thus, Bharata states: “Whatever remains unmentioned [in the *Natya Shastra*] should be included into practice by experts from an observation (lit. imitation) of people” (Bharata 561). In other words, the conventional gestures, movements and facial expressions detailed in the *Natya Shastra* were meant to be supplemented by other, more specific gestures, movements and expressions drawn from everyday life. These two kinds of representation (*dharmī*) are classified as *nātyadharmī*--“theatrical” forms of representation based on the conventions of *nātya*--and *lokadharmī*--“realistic” forms of representation based on observations from *loka*, from “the world” itself (Bharata 103). For the sake of a more subtle, nuanced and convincing characterization, actors were expected to blend both kinds of representation into their performances.

Abhinavagupta writes that the gestures of the actor may arouse an “intensification” of consciousness in the spectator (Abhinavagupta 59, 62). However, he makes it clear that such an “intensification” is not a property of the work of art (or theatrical production) itself, but, as he explains, “indeed, properly means the action being done by a tasting subject [the “act” (*karanam*) of “relishing” or “expressing surprise” (*chamatah*)], in other words, by the enjoying subject, he who is immersed in the vibration (*spanda*) of a marvelous enjoyment

(*adbutabhoga*)” (Abhinavagupta 59, 60). This does not mean, however, that an actor’s performance should consist of an “intensification” or “exaggeration” of physical gestures. Neither Abhinavagupta nor the author of the *Natya Shastra* advocate melodramatic acting or overacting. The “intensification” to which Abhinavagupta refers is merely the “intensification of consciousness” performed by the *rasika*, the Self, the “enjoying subject,” who expands or contracts his or her own consciousness into the shape of each *rasa* in order to experience itself as each *rasa*. “Intensification,” in other words, refers to a performative process that occurs within the consciousness of the audience member and has nothing to do with the techniques employed by actors.

3. The Subjectivity and Virtuality of Abhinavagupta’s *Rasa*

For Abhinavagupta, drama is an exercise in “cognition by a special form of re-perception (*anuvyavasaya*),” which differs from what is sometimes considered the “direct” perception (or *vyavasaya*) of objects in the external world (Abhinavagupta, 99). *Vyavasaya* and *anuvyavasaya* are technical, epistemological terms that are first used in the Nyaya (or “Logic”) school of Indian philosophy and which are later adopted by all schools of Indian philosophy, though each school defines these terms somewhat differently (Chatterjea, 1937: 11). In Yoga philosophy, for instance, “the word *anuvyavasaya* refers to the function of the mind... by which the sensations (due to the sense-object contact *alocana*) are associated, differentiated, integrated and assimilated into percepts

and concepts. It [*anuvyavasaya*] is therefore the creative faculty of mind” (Sukla 237). Many of the classical Indian logicians who wrote about *anuvyavasaya*, including Abhinavagupta, agreed to the basic premise that cognition is a creative act; they differed, however, as to whether cognition should be understood as a two-step or three-step process, or, as some Buddhist logicians claimed, as a “self-luminous” awareness that requires no mental processing at all (Sukla 237). “For [Abhinavagupta], there are two stages of perception - one is indeterminate, which is due to the contact (*vyavasaya*) of the sense with the object; and the second stage that occurs after (*anu*) the contact (*vyavasaya*) is determinate perception or *anuvyavasaya*” (Sukla 237).

Kashmir Shaivism differs from every other school of Indian philosophy in the way it defines *anuvyavasaya*, since, for Kashmir Shaiva philosophers, consciousness is the *only* reality. Thus, rather than accept that objects exist independently of the mind and that they can be perceived directly (*vyavasaya*), Kashmir Shaivism understands that the reality we perceive exists *only* in the mind (*anuvyavasaya*). Just as the twentieth-century French psychoanalyst Jacques Lacan argued that humans are eternally alienated from “the real,” because we can perceive reality only indirectly, in our symbolic interpretation of it (Fink, 1997: 27), Kashmir Shaiva philosophers argued that sense perceptions (*vyavasaya*) must first be “re-perceived” (*anuvyavasaya*) in order for the sense-impressions to become meaningful for the perceiver. Such re-perceptions constitute creative acts, so the reality that each person re-constructs mentally is unique to that individual. As Mark Dyczowski writes, in his analysis of

Abhinavagupta's *Doctrine of Vibration* [*spanda*]: "The object apprehended by the senses can never be the original object because the perception of the object is never immediate; it is.... a reflection within the mind and senses" (Dyczowski 66). Kashmir Shaivism is monistic, however, so, whereas Lacan would argue that each creative re-perception of reality is only a fiction, Kashmir Shaivites make no distinction between fiction and reality. The creative processes by which reality is "re-perceived" are the same creative processes by which Shiva expands and contracts (*spanda*) his consciousness to become all material forms. We are not eternally alienated from "the real," as we are in Lacanian psychoanalysis, since, by paying attention to our own creative "re-perception" of reality, we become increasingly aware of the mechanisms by which reality is produced. The deeper one delves into fiction, then, the closer one comes to understanding reality. This is why Kashmir Shaivism valorizes drama, poetry and aesthetics. As Dyczowski explains: "The only way to account for the appearing of this cosmic reflection [according to Abhinavagupta] is to accept that consciousness itself creates it spontaneously.... Consciousness, in this sense, is the cause of both the original object and its reflection" (68). A play is a creative fiction, and the active, intentional, creative "re-perception" of a play affords the *rasika* a special opportunity to become aware of the creative power of consciousness itself. As Dyczowski writes: "By contemplating its own nature, consciousness assumes the form of all the planes of existence from the subtlest to the most gross" (70).

Advaita Vedānta is another monistic, non-dualistic philosophical system. The Vedānta theory of perception, however, “is object-oriented” (Sharma 103). “The mind,” according to Vedānta theorists, “does not form the precept of an object by constructing the piecemeal sensation into a whole,” as Kashmir Shaiva philosophers would contend (Sharma 103). Rather, as in Gestalt theories of perception or Kant’s theory of *a priori* aesthetic judgment, objects are grasped instantly and directly in all of their fullness. VS Ramachandran expresses this view when he writes that “many paintings instantly evoke an emotional response” (Ramachandran, 1999: 31).

This is decidedly not the position Abhinavagupta takes. For him, aesthetic experiences must be meaningfully synthesized by the mind of the spectator. Prior to the stage of determinative cognition (or “post-perception” or “re-performance”), sense impressions are fragmentary and indeterminate. The aesthetic experience consists in the “crashing together” of two waves, the wave of manifested qualities [*ābhāsas*] of the aesthetic event, and the wave of active reflection or mirroring [also called *ābhāsas*] of those qualities in the *rasika*’s mind. *Ābhāsa*, which means “manifestation,” “expression,” “appearance,” “mirroring” or “shining forth,” is an important concept in Shaivite metaphysics and lends its name to the Shaivite doctrine of *Ābhāsavada*, the “theory of manifestation.” Whereas Advaita Vedanta theorists contended that the world of appearances was a lower stage of reality - a mere “appearing to be (*ābhāsa*) in the place of actual existence” - Kashmir Shaiva authors, “particularly Abhinavagupta,” saw the universe itself as Shiva’s *ābhāsa*, his “shining forth” or self-manifestation -

“not... in the sense of a semblance, but as the manifest form of the absolute” - and they, therefore, rejected the view “that the world of manifestation... [was] less than real” (Dyczkowski 25). For Abhinavagupta, “the everyday world of diversity is not a world of semblances contrasted with an absolute that preserves its authenticity and absolute nature by never being actually and phenomenally manifest” (25). The Kashmir Shaiva doctrine of *Ābhāsavada* understands all reality, ultimately, as the active and performative manifestation of the divine.

Shiva manifests as both subject and object, and an aesthetic experience consists of the crashing together of subjective and objective “waves” of *ābhāsas* that “recognize” each other (*pratyabhijñā*) in a dynamic process of mutual self-reflection (25). Every subject and every object is Shiva, yet each manifestation of Shiva is as different as rock candy, molasses or sugarcane juice (which are all “sugar”). The diversity of the manifest appearances (*ābhāsas*) of Shiva means that aesthetic experiences will always be unique, non-repeatable events, since the aesthetic event commingles the *ābhāsas* of the art object or performance with the *ābhāsas* of a particular *rasika* at a particular time. The Shaiva theorists give the example of a precious jewel whose *ābhāsas* reflect differently in the mind of an expert jeweler or that of a nonspecialist (Sharma 120). Whereas Ramachandran believes that every person who experiences an aesthetic object will experience it in an identical way, Abhinavagupta and the other Kashmir Shaiva philosophers understand that aesthetic experiences do not simply “shine forth” from the object but that this “shining forth” must also be “reflected” or “recognized” or “mirrored” by the “shining forth” of the consciousness of the

experiencer. Thus, as L.N. Sharma writes, “besides inclination and taste, perception of an object also depends upon the intellectual capacity of the perceiver” (120). The poet Kabir, writing four centuries after Abhinavagupta, adopts the Kashmir Shaiva metaphor of the jeweler to explain the importance of expertise in aesthetic perception: “A diamond was lying in the street, covered with dirt. Many fools passed by. Someone who knew diamonds picked it up” (Sakhi 171). If aesthetic experiences are universal, then every person who sees a dust-covered diamond lying in the gutter should instantly recognize its value. Not all of us have the sufficient cultural training, expertise, intelligence or good enough eyesight to recognize a “diamond in the rough,” and if we were to rely exclusively on “formalist” criteria we would inevitably mistake cubic zirconiums for diamonds. Only in the mind of the highly trained and sensitive jeweler do the *ābhāsas* or appearances of the diamond join with the *ābhāsas* of the jeweler’s mental “mirroring” to produce a flash of recognition (*pratyabhijñā*) of the diamond’s value. A flash of recognition (*pratyabhijñā*) occurs in the nonspecialist’s mind, as well, but it may simply be the recognition of a generic “dusty object.” The quality and character of an aesthetic experience, therefore, depends not only on the form of the aesthetic object or event but also on the mind of the experiencer.

Raniero Gnoli translates *anuvyavasaya* as “re-perception;” however, in addition to “perception,” *vyavasaya* can also mean “performance” (Monier-Williams). *Anu* carries the sense of “after” or “beyond” or “again,” so it may be rendered in English as “re-” or “post-.” Thus, we could say that each *rasika* “re-

performs” the drama within his or her own mind. It is a “re-performance,” “re-enactment” or a “post-performance” phenomenon. The spectator is as much of a performer as is the actor on the stage, and the aesthetic experience that he or she receives is a product of his or her own individual mental “re-performance.” Whether understood as “re-perception” or “re-performance,” the implication is clear: the stage performance is always filtered through the mind of the *rasika*, where it is “re-perceived” or “re-performed,” and this second-order stage of mental mirroring is what produces the aesthetic experience. Drama is not what occurs onstage, for drama cannot exist without an audience. The words and gestures that occur onstage must be internalized by the members of the audience, and it is *only* in the virtual space of the audience member’s mental “re-performance” (*anuvyavasaya*) that the aesthetic experience of the drama actually occurs. As Abhinavagupta writes:

The actor, being seen, arouses, then, in the spectators, a re-perception (called, too, tasting, sampling, *chamatkara*, relish, immersion, enjoyment, etc.), which, though consisting in the light and bliss of our own consciousness, is still affected by various feelings, and is therefore varied. Drama is only what appears in this re-perception [*anuvyavasaya*]. (100)

Drama happens not on stage but “only” in the minds of the spectators. Thus, Abhinavagupta’s aesthetic theory focuses on the role of the spectator in constructing (or “re-perceiving” or “re-performing”) the aesthetic experience. Although theatrical productions may require many talented actors and musicians, the most important performer in any production, according to Abhinavagupta, is the audience member.

The tasting subject, the *rasika*, experiences an “intensification” of consciousness only when sufficiently trained and mentally prepared for such an experience. It does not arise instantaneously or automatically but requires active participation on the part of the *rasika*. In fact, Abhinavagupta explicitly rejects the view that *rasa* “is nothing but an external combination (*samagri*) of various elements” (Abhinavagupta 42). In *rasa* theory the aesthetic experience is never external. It is a mental “re-performance” that occurs in the consciousness of the *rasika* alone, and is therefore also subject to individual variation.

C. Wine Tasting and Virtual Reality

Abhinavagupta and other Kashmir Shaiva theorists describe the virtuality and subjectivity of the *rasas* that the *rasika* experiences in *anuvyavasaya* in terms of wine-tasting. As Vidya Dehejia explains, the Kashmir Shaiva philosophers “postulated that the aesthetic experience rests not with the work of art, nor with the artist who created it, but with the viewer. By way of analogy, the ancient writers pointed out that the taste of wine rests not in the jug that contains it, nor with the vintner who produced it, but with the person who tastes it” (Dehejia, 1997: 11). “[T]he emphasis throughout is on the spectator,” Dehejia writes, “with theorists affirming emphatically that the the actor, like the vessel which holds the wine, is only the means necessary for the viewer to taste *rasa*,” (21). Intriguingly, such language is nearly identical to that of Jaime Goode, a

contemporary biologist who is also an internationally recognized wine judge and an award-winning wine writer. Like Abhinavagupta, Goode affirms:

[T]he taste of wine is not a property of the wine, but a property of our perceptual apparatus.... We bring something of ourselves to the wine tasting experience: our context, our biology, the information we have about the wine, our previous experiences of wine, and even our own internal state at the point of tasting the wine. Because in our sensory perception we are effectively modeling the world around us, our perception itself is largely subjective. (Goode 2010)

The wine that an expert “tastes” is not the wine in the glass but the wine in the mind. In “our sensory perception,” Goode writes, “we are effectively modeling the world around us.” By reconstructing the world in a virtual, mental space, the world fuses with our active, creative “modeling” of it. So, too, with all aesthetic experiences, according to Abhinavagupta. Audiences at a dramatic performance do not “taste” the performance directly. Rather, they reconstruct the performance in their own minds. The mentally reconstructed performance is mediated through their own *abhasas*, their mental “mirroring” mechanisms, and they are further colored by their own *bhāvas* (feelings, attitudes or states of being). An audience member’s mental reconstruction of the performance is the only thing that the audience member can ever “taste.” This is why Abhinavagupta writes that drama “is only what appears in this *anuvyavasaya*,” it is only what appears in our mental reconstruction. Art, like wine, is experienced in the mind alone.

Such a view contrasts with what Goode characterizes as the “old-fashioned, simplified view of wine tasting [that] sees us acting as measuring devices,” with the “taste buds in our tongues and the olfactory receptors in our

nasal cavities detect[ing] chemicals present in the wine” and then sending this “objective” data to the brain to “read out” as “the flavor of the wine” (Goode, 2010). Goode asserts that this view is “quite wrong,” because “the impression we form” of a wine is not a simple, objective, mechanical measurement but “is a conscious experience that involves the fusion of inputs from at least four different senses, coupled with some sophisticated brain processing” (Goode, 2010). Goode’s view conforms perfectly to that of Abhinavagupta, but Ramachandran is still operating according to the reductive conception of the human brain as a measuring device rather than as a plastic, dynamic agent of creative synthesis and interpretation.

Ramachandran errs by interpreting the performance-based concept of *rasa* in terms of static, object-based art. This basic misunderstanding leads him to conceive of *rasa* as an exaggerated essence preserved in material form, as opposed to a shape-shifting mood experienced in the mind of an active participant-observer. Ramachandran’s *rasa* is, in many ways, the opposite of the *rasa* described in the Sanskrit texts. Whereas classical *rasa* is a mixture, Ramachandran’s *rasa* is pure. Whereas classical *rasa* is subtle, Ramachandran’s is exaggerated. Whereas classical *rasa* is subjective, Ramachandran’s is objective. Whereas classical *rasa* is dynamic, Ramachandran’s is static.

Ramachandran hopes that the neuroaesthetic theories he derives, in part, from his interpretation of *rasa* aesthetics can provide a universal model for understanding all human aesthetic experiences. Unfortunately, however, the *rasa* theory Ramachandran presents is so far removed from its classical sources

that it cannot even serve as a useful model for understanding the aesthetic experiences of classical Hindu audiences, let alone the aesthetic experiences of audiences in alternative cultural milieux. We will now turn to some of the socio-cultural and spiritual aspects of *rasa* that Ramachandran's reductive materialist approach ignores.

D. *Rasāyana*: the Alchemy of Art

For Abhinavagupta, the ability to taste the various *rasas* was a skill that could be learned and developed through practice. By practicing *rasa*-tasting, *rasikas* gained greater insight into, and control over, their own minds and emotions. Such mental control, moreover, helped them to pursue the four traditional Hindu life-goals (*purushartha*) of pleasure, prosperity, social harmony and spiritual liberation (Abhinavagupta 75). In his commentary on the *Natya Shastra*, Abhinavagupta describes the importance of mastering the *rasas*, and, in so doing, draws a direct parallel between the figure of the *rasika*, who gains mental vigor through *rasa*-tasting, and that of the alchemist, who is believed to gain physical vigor through the practice of *rasāyana* (which means “alchemy,” but also, more literally, “the path of *rasa*”):

[O]nly some sentiments [the *rasas*] are able to promote the ends of man [i.e., the four valid life-goals of pleasure, prosperity, social harmony and spiritual liberation], and, as such, they are rightly the object of teaching.... Other sentiments, as weakness, apprehension, etc. [i.e., the “transitory states,” which do not promote pleasure, prosperity, social harmony or spiritual liberation], on the other hand, can never possibly be manifested if the

corresponding determinants do not exist: so, for example, a *muni* who practices *rasāyana* is immune from weakness, indolence, weariness, etc. (Abhinavagupta 75)

Abhinavagupta's "*muni* who practices *rasāyana*" might be a punning allusion to the purported author of the *Natya Shastra*, Bharata Muni, whose own *rasāyana* ("path of *rasa*") is, after all, the subject of Abhinavagupta's commentary.

The authorship of the *Natya Shastra* is unknown, and its purported author, Bharata, is mythologized even within the text itself (Bharata LXXI). That is, Bharata appears not only as the author but also as a character in the *Natya Shastra*. The shastra presents him as a Promethean hero who brings musical theatre down to earth "from Heaven" (Bharata 555). As Manomohan Ghosh notes in the introduction to his translation of the *Natya Shastra*, *bharata*, as a common noun, means "actor" (Bharata LXXI). *Bharata*, in its verbal form, *bharati*, can also mean "to support or maintain" (Monier-Williams). The *Natya Shastra* suggests an etymological connection between these two senses, when it states that anyone who "conducts the [performance of a] drama by acting in many roles and by playing many musical instruments and by providing many household accessories (*upakaraṇa*), he is called *bharata*, or a member of the theatrical party" (Bharata 549). In other words, the *bharatas* were those who "supported or maintained" the theatre in various ways. If *bharata* is understood in this sense, as a generic term for any multitalented actor-musician who "supports or maintains" theatrical productions, then "Bharata Muni" can be translated simply as "The Actor Sage," "The Magician of Theatre" or "The Sage Who Supports the Theatre."

Abhinavagupta, writing approximately one millennium later, explicitly links Bharata's "path of *rasa*" to alchemy. The double meaning of *rasāyana* - as "alchemy" but also "the path of *rasa*" - suggests a number of interesting connections between these two disciplines. First and foremost, as Abhinavagupta notes, if "a *muni* who practices *rasāyana* is immune from weakness, indolence, [and] weariness," then the *rasika* who practices aesthetic engagement must similarly possess an "immunity" to mental "weakness" and "apprehension." By habitually relishing the flavors (the *rasas*) of the constant and enduring (*sthayi*) emotional states (*bhāvas*), the *rasika* slowly acquires an immunity against the anxiety and stress associated with the "transitory" emotional states. The transitory states become mere herbs and seasonings that add momentary bursts of flavor to the soup of the dominant *rasa* that the *rasika* relishes. The path of *rasa* (aesthetics as a spiritual path) is comparable to that of alchemy, for both disciplines purport to deliver spiritually, psychologically and physically therapeutic effects.

As I previously mentioned, the primary meaning of *rasa* is "juice." In Vedic alchemy, however, it has the primary meaning of "mercury" or "quicksilver." This shape-shifting liquid metal was the alchemists' chief inspiration and the main ingredient in many of their elixirs, as it was in European alchemy, as well. We know that the "art of distillation and condensation of mercury" had already been well established in India by the fourth century BCE, since it is mentioned in the *Artha Shastra* (AS II:XII). Mercury continues to be used in ayurvedic preparations even today (Saper 915), despite the well-founded public safety

concerns of the Indian government and its ongoing, but hitherto unsuccessful, efforts to regulate the industry (Valinathan 5,6) Because *rasa* can mean “mercury,” *rasāyana*, or “the path of *rasa* aesthetics” can also mean the “path of mercury” (or “the science of mercury,” i.e. “alchemy”). So, in effect, “*rasa* aesthetics” and “alchemy” are the same word.

By extension, *rasa* can refer to any “metal or mineral in a state of fusion;” or to any pharmacological “elixir” or magical “potion” (Monier Williams 869, 3). Given the ancientness of alchemy in India, it is possible that *rasa* may have originally meant simply “mercury,” and that all other definitions (including “juice”) followed metaphorically or associatively from this definition. For example, a *rasa* can be one of several bodily substances - especially milk, semen, bone marrow, and the lymphatic fluid produced by the small intestine (“chyle” in English, from a Greek word that also means “juice”) - bodily substances, in other words, that the alchemists’ potions were meant to mimic, replace or enhance (Monier Williams 869, 3).

These bodily substances have “alchemical” properties: life-producing in the case of semen, life-sustaining in the case of milk, and restorative or life-extending in the case of bone marrow and lymphatic fluid. The Vedic alchemists recognized the power of these natural “juices” and hoped to produce even more powerful “juices” synthetically. In a similar way, the *rasikas* of the later Kashmir Shaiva tradition relished the emotional “juices” of artificial situations (theatrical productions) to better understand and control the natural “juices” of their own consciousness. They would drink the synthetic “cocktails” or “potions” of

comedy, romance, disgust, horror, fury, tragedy, heroism and wonder in order to experience ever deeper, stronger, more pleasurable and lasting moods that could be sustained in the face of any transitory psychological state, stress or misfortune. Both the *rasāyana munis* and Bharata Muni's *rasikas* conceived of *rasas* as indeterminate, "mercurial" concoctions that could enhance and transform one's own life.

The ancient Indian alchemists emerged from the same *kaula* school of tantric Hinduism that later produced Kashmir Shaivism (Flood 166). Thus, while Abhinavagupta uses alchemy as a metaphor, he is not at the same time necessarily questioning the legitimacy of traditional *rasāyana* practices. His metaphor is not quite as glib as modern-day references to "magic" in relation to film: our purely metaphorical use of "magic" in phrases such as "movie magic," "the magic of Hollywood," George Lucas's "Industrial Light and Magic," and so forth. "Movie magic," in our rational, disenchanted world, connotes only illusions: glitz, glamor and gimmickry. It is a magic *trick* created by producers, directors and special effects artists. The alchemy to which Abhinavagupta refers, by contrast, is neither illusory nor is it primarily the creation of producers and directors. For Abhinavagupta, the alchemist is neither the producer nor the director, nor even the actor, but the individual audience member, the *rasika*. The "alchemy" that happens is the real experience of "one's own consciousness" in its infinitely polymorphic, "mercurial" plasticity, transforming itself. Consciousness, like quicksilver (*rasa*), is subject to endless expansions and contractions

(*spanda*). The *rasika*, the one who actively reshapes his or her own plastic consciousness, is a magician of the mind.

E. The Metaphysics of *Rasa*

Thus far, I have argued that Ramachandran's translation of *rasa* as "essence" is misguided. *Rasa*, which literally denotes "quicksilver," is a colloidal, shape-shifting substance. Even when used metaphorically to mean "mood," ancient writers imagined the *rasas* as infinitely plastic and permeable, seeping into and "becoming" one another. Like the many roles adopted by a single actor, the *rasas* have no independent existence as separate "essences" but are, rather, temporary manifestations of the same universal consciousness expanding and contracting within itself. Such a conception of *rasa*, as developed by Abhinavagupta, parallels the Kashmir Shaiva conception of the cosmos itself as a limitless "expansion and contraction" (*spanda*) of Shiva. Ramachandran's interpretation of *rasa* as "essence," on the other hand, carries with it the ghost of an alternative metaphysical system - the essentialism of Hegel and Kant - which is incompatible with Kashmir Shaiva thought.

Hegel's Protestant God is separate from His creation. Even if God creates the world and directs its historical unfolding, everything in the world nevertheless maintains an independent existence apart from God. Every human being has his or her own unique soul or "essence," which is not identical to any other soul and certainly not identical to that of God. To be human is to be born in sin, to be

“fallen” and radically divorced from divinity. This, for Hegel, is the human condition. In the monistic metaphysics of Kashmir Shaivism, by contrast, the entire cosmos is a manifestation of the consciousness of God. Everything that exists, including each individual human “self,” is nothing more or less than the “expansion and contraction” (*spanda*) of the “Supreme Self,” which is Shiva. Western distinctions between “the sacred and the profane” or “spirit and matter” (or even “self and other”) become meaningless if God is in everything and everything is God. The rich variety of the material world and the equally endless array of human thoughts and emotions, has only a single “essence,” which is called “Shiva.”

Incidentally, there *is* a word for “essence” in Sanskrit, and Abhinavagupta uses it. It is not *rasa* but *sāra* (an “essence,” “extract” or the “best part” of something). *Sāra* is not an especially helpful concept for classifying varieties of aesthetic experience, however, since all things are of the same “essence.” Shiva can express himself in infinite forms and flavors, but the forms and flavors themselves are not separate “essences.” In his commentary on Patanjali’s *Paramārthasāra* (“The Essence [*Sāra*] of Ultimate Truth”), Abhinavagupta explains this concept by way of an analogy. He compares the “higher vision” of the “Supreme Self” to pure sugarcane juice, which can appear in an infinite variety of forms: “It is the Supreme Self, the Parama Śiva, [which manifests] in all the different experiences of the Self, [just] as syrup, molasses, jaggery, sugarballs, etc. are all alike juices of the sugarcane” (Sharma 303). Sugarcane juice can manifest itself as a liquid, a powder, a syrup, a solid block of jaggery, or

in numerous other forms. This is the “essence” of Shiva, the “essence” of all things. There is only one “essence” (“sugar,” in Abhinavagupta’s metaphor), but the forms it adopts are endlessly variable. Like quicksilver, Shiva can assume any shape. Like a skilled actor, he can adopt any role. The *rasas* (which, can also mean “syrops” or “sugarcane juices”) are not “essences,” if “essence” is understood as something unique, indivisible and changeless. Rather, they are merely flavors or moods of the same substance, the same essence, which is Shiva, which is also the Supreme Self.

Advaita Vedanta (the “non-dualist” school associated with Adi Shankara) agrees with Kashmir Shaivism on this point. Reality is “oneness.” The Self is “Supreme.” Where Kashmir Shaivism diverges from Advaita Vedanta, however, is that the Vedantins emphasize withdrawal from the world of the senses (through renunciation and meditation) as the best method for achieving liberation from the appearance of multiplicity, whereas Kashmir Shaivites take the play of appearances of the material world seriously. The world, in all its diversity, is still the manifestation of Shiva’s own self-enjoyment. Thus, mystical union with the divine, then, consists not in withdrawing from the world but in actively engaging with it. If all that is *is* God, then every experience is, from an ultimate perspective, equally “divine.” By experiencing the world fully in all of its flavors, the *rasika* is able to experience the “Supreme Self” in “all the different experiences of [its] Self.”

F. Acting as Renunciation

Ancient Indian actors, as we have seen, were expected to master a wide range of movements and gestures. They were also required to know how to sing and dance in rhythm, how to memorize their parts and how to suppress their natural stage fright (Bharata 526). Many of the “qualities of an actor” that Bharata lists should be familiar to modern readers, since modern performers in musical theatre are expected to sing and dance and memorize their parts and perform without stage fright, too. What is interesting however, is that the qualities of an actor appear very differently when viewed through the lens of ancient Indian forms of spirituality.

In one rather startling analogy, for instance, the *Natya Shastra* describes the acting process as a form of “renunciation.” The actor, Bharata tells us, is “like a man who renounces his own nature together with the body, and assumes another’s nature by entering into the latter’s body” (Bharata 541). Just as a *sannyasi* renounces his own body (traditionally by performing a mock funeral for himself), an actor renounces his separate and unique identity and instead opens himself to the possibility of becoming someone entirely different. The Sanskrit word that Bharata uses for “renunciation” here is *aparigraha*, which literally translates as “non-possession” (Monier-Williams). *Aparigraha* is one of the “five abstentions” Patanjali lists in his *Yoga Sutras*, and it is one of the five major vows that Jains take, as well. For Jain ascetics, *aparigraha* means not only the renunciation of possessions but the renunciation of social relations, too

(Glaserapp, 1999: 228-231). To become the *other*, the actor must first renounce “his own nature together with the body.” The actors drop their old identities. They drop their old gestures, gaits, facial expressions and ways of inhabiting their bodies. While they are performing their new roles onstage, their previous social relations are suspended, as well, and actors relate to one another “in character.” Unlike traditional ascetics, who renounce only once, however, actors repeat this process of “renunciation” with every new role they adopt!

Additionally, while traditional ascetics may renounce their former possessions and social relations, and while they may symbolically renounce even their own bodies, other markers of identity, such as those indicating gender and age, may be more difficult for them to dispossess. Elderly renunciates, for instance, rarely make an effort to conceal their age. Actors, however, renounce even these “naturalized” markers of identity. Thus, Bharata writes that men may impersonate women and “a man’s character may, at one’s option, be represented by a woman” (Bharata 542). Unlike in Shakespeare’s time, when all roles were played by men, ancient Indian acting troupes were comprised of both men and women, and actors of both genders sometimes portrayed characters of the opposite gender. Acting troupes were also multigenerational, with boys sometimes playing old men or vice versa (541). Bharata cautions, however, that a cross-generational actor must not “betray his own nature in acting,” lest his performance be criticized as “unnatural” (541). The implication is that young actors portraying elderly ones is not in itself “unnatural,” just as female actors portraying male ones is not in itself “unnatural.” To the contrary, certain male

roles are “always to be represented by women” (542), and certain plays, especially those in which the erotic or romantic sentiment predominates or those that require “the observance of proper tempo,” should ideally be produced by an all-female troupe (544). Such performances are only “unnatural” if the actors in question “betray [their] own nature in acting,” that is, if the performance is unconvincing. An unconvincing performance indicates a lack of commitment to the character or an insufficient “renunciation” of the actor’s former (habitual or conventional) identity. In fact, it is only “after concealing his identity (lit. his own form) by means of painting and make-up” that the actor is able to “enter the stage in his natural State (*bhāva*)” (541). Any role that an actor adopts becomes his “natural” state, since his habitual or conventional identity is renounced.

The tradition of Indian theatre presented in the *Natya Shastra*, thus, radically redefines “renunciation.” Bharata presents acting as the epitome of renunciation or non-possession, despite the fact that actors had monetary possessions and were not, in any traditional sense, renunciates. They were worldly people. We know that actors did not renounce wealth, because, at least at the time the *Natya Shastra* was compiled, they competed for monetary prizes (522). They also most likely did not take vows of celibacy, given the overwhelmingly positive attitude the shastra expresses towards human sexuality, including toward acts of non-procreative sex: “The union of men and women which finds them sexually united is known as an Erotic Affair (*śṛṅgāra*),” Bharata writes, and “this benefits the two and brings them happiness” (454). Lest we think this passage refers only to forms of simulated, theatrical eroticism meant to

lead people to a “purer” state beyond fleshly pleasures, or that it refers to eroticism only as a poetic trope to be interpreted symbolically, Bharata continues: “In this world, people always desire happiness, of which women are indeed the source” (454).

Other verses in the *Natya Shastra* also allude to the shramanic path of renunciation. In particular, Bharata’s advice for how actors should “become” their characters directly parallels the language used by renunciate communities. Bharata writes: “Thus, after thinking within himself that ‘I am he,’ a wise actor should represent the States [*bhāvas*] of another person by speech, gait, movements and gestures” (Bharata 541). The phrase “I am he” echoes many of the *mahavakyas* or “great sayings” of the Upanishads (such as “Thou art That” from the *Chandogya Upanishad* or “I am Brahman” from the *Bṛhadaranyaka Upanishad*) which Advaita *sannyasis* would often internalize as mantras. Bharata’s own “actor’s mantra” - “I am he” - may seem, at first, to be little more than a mockery of the shramanic path. How, after all, can the same worldly actors who accepted monetary prizes, who “caricatured the sages by means of bafoonery” and who were known to inspire “vulgar passions” (Bharata 556) also be taken seriously as “renunciates”?

Early Hindu theatre, like the philosophy of Kashmir Shaivism that would later complement it, presents a vision of life that challenges not only the Vedic model, but the shramanic model, as well. Bharata suggests that actors are “renunciates” because they “renounce” their stable, fixed identities in favor of an endless fluidity of roles. They remain worldly, but they renounce the limited view

of the self as attached to a particular body, or to a particular range of thoughts and emotions. Each new role is a new “renunciation” but, at the same time, a new “expansion” (*spanda*) of the Self. The actor demonstrates his renunciation by “thinking within himself that ‘I am he’” in relation to every “other” whom he then “becomes.” The *Natya Shastra* is not so much mocking the shramanic path as arguing that an alternative path - the way of acting, which, on the surface, appears to be the polar opposite of “renunciation” - can, in practice, lead to the same goal. Musical theatre is a “third way,” a spiritual alternative to both Vedic brahmanism and Vedantic shramanism. Thus, even those who merely attend “the performance of music (*gāndharra*) or dramas,” the *Natya Shastra* states, “will attain the happy and meritorious path in the company of the brahminic sages” (Bharata 561).

G. No Ideal Spectators

We have considered how the *Natya Shastra* characterizes the ideal actor. However, since Abhinavagupta’s discussion of *rasa* aesthetics focuses almost exclusively on the experience of the audience member, not the actor, we will now consider what the *Natya Shastra* has to say about ideal spectators. The shastra enumerates approximately forty characteristics that people should possess “to be made spectators” (Bharata, 519). Some of these characteristics refer to acquired proficiencies: spectators must know drama “in all its six limbs,” as well as the rules of “grammar, prosody and various [other] Shastras,” and how to play “the

four kinds of musical instruments,” and so forth (519). Other characteristics refer to the spectators’ personal qualities: they should be “quiet” but “desirous of fame,” their senses should be “unruffled,” and so forth (519). The ability to respond empathetically to performances is valued, so spectators should feel “gladness on seeing a person glad, and sorrow on seeing him sorry” (519).

The list of characteristics of the ideal spectator seems fairly straightforward and prescriptive, until one comes to the very end, and Bharata nullifies the entire list by declaring: “All these various qualities are not known to exist in one single spectator” (520). There are no ideal spectators! As the shastra explains: “objects of knowledge are so numerous and the span of life is so brief” that no “one single spectator” can be expected to master everything that would be necessary to appreciate a performance in all its aspects. Rather than conceiving of the “ideal audience” for a play as a set of perfect clones, Bharata understands the audience as a collective that must work together to appreciate the play, with each member of the audience judging only those aspects of the play with which he or she is intimately familiar. “Hence,” Bharata declares, “an individual to whom a particular dress, profession, speech and an act belong as his own, should be considered fit to appreciate the same” (520). To paraphrase the African proverb: It takes a village to watch a play.

Even if Abhinavagupta’s subsequent *rasika* tradition acquires more of an inward focus, it is significant that the tradition develops out of a collectivist spirit. Bharata’s audiences are not Kant’s “disinterested” observers. They are interested parties who recognize their own embodied subjectivities represented

onstage. “Thus,” he states, “the man who is fit to assume a particular role by imitating the States of the latter, can be considered a spectator possessing the [necessary] qualifications” to evaluate that particular role (520). Onstage representations of sacrifices were judged by an “expert in sacrifice,” “complicated meters” were judged by “a prosodist,” “matters relating to the enjoyment of love” were judged by “a courtesan,” and so forth (521). Needless to say, Ramachandran’s universalist approach to aesthetic experience is entirely foreign to the original *rasa* tradition, which recognizes a startling range of “various classes of spectators,” who, by virtue of their relative gender, age, level of education, talents, dominant moods, motivations or life experiences, are able to appreciate different aspects of a performance (520).

There may not have been an “ideal” spectator in ancient Indian musical theatre. There were, however, ideal ways for spectators to express their enjoyment of a play. Audience members were not simply meant to sit and watch plays silently or to experience the *rasas* within themselves. Performances were interactive, and audience members would register their aesthetic responses physically in a number of culturally-prescribed modes of collective expression. Thus, spectators learned to externalize the slight suggestion of comic *rasa* aroused by “words of *double entendre*” with a smile, whereas “laughter created by the bragging of the Jester... should always be received by the spectators with an Excessive Laughter” (512). In response to the representation of virtuous deeds, spectators exclaimed “well-done” (*sādhū*), whereas they exclaimed “how wonderful” in response to “the Erotic, the Marvelous and the Heroic Sentiments”

(512). Spectators expressed their astonishment by producing a “swelling uproar” (*pravṛddhanāda*) of applause, while they externalized feelings of curiosity or anticipation by making their hairs throb (512).

Ramachandran, who believes that aesthetic responses can be tested scientifically by measuring “galvanic skin response,” or the relative electrical conductance of a subjects’ skin as a sign of emotional “arousal” (Ramachandran, 1999: 32), does not consider that even such seemingly “natural” responses as skin conductivity may, in fact, be learned responses to stimuli. Like Pavlov’s dogs who learned to salivate at the sight of food, or like ancient Indian audiences who, if we are to believe the shastra, learned to make their hairs throb in culturally prescribed ways, the physical externalization of an aesthetic or affective state, even when it occurs involuntarily, may not necessarily be a sign of an innate, hardwired or “universal” response. It might well be a learned response. Ramachandran ignores the complex interplay of culture and biology, preferring to view culture as the product of “genetically specified mechanism[s]” (16) or an “evolutionary rationale” (15). Neurophysiological responses, however, can be specified by cultural context, learning and embodied practice as well as by genetic and evolutionary factors. The theorists of the *rasa* traditions repeatedly emphasize the constructedness of aesthetic experiences. One is not born a *rasika* but becomes one through practiced effort. The *rasas* are not directly “produced” by the *bhāvas* (the represented states) but the *rasikas* embody the *rasas* through a process of dynamic, responsive engagement with the *bhāvas*.

It should come as no surprise, then, that Bharata's "ideal spectator" (the one that he later rejects as an impossible fantasy) is supposed to be "advanced in age" (519). As humans, the "span of life is so brief" that even an elderly person cannot be expected to know all "objects of knowledge" (520). Still, with age comes experience. And, at least in the *rasa* tradition, age and experience also brings with it the potential for increasingly profound responses to aesthetic phenomena. One's prior aesthetic responses are not discounted as one gains increasingly "higher" or more "expansive" visions of the Supreme Self. Rather, as L.N. Sharma states: "The higher visions include all the lower visions" (Sharma, 303). Still, the depth and clarity of the aesthetic responses of a *rasika* who has practiced the path of *rasa* for an entire lifetime is presumed to be of a different magnitude than those of an untrained spectator or of a neophyte. Ramachandran's theory of aesthetic experience as innate and universal leaves little room to explore how aesthetic responses might change or evolve over a lifetime's worth of engaged practice.

CHAPTER III: NEUROAESTHETICS AND *RASA*, A WAY FORWARD

It should be clear by now that the *rasa* VS Ramachandran writes about has nothing to do with the *rasa* aesthetics of Bharata or Abhinavagupta, let alone with “the very essence” of all human art. It has more in common with the universalizing, “formalist” theories of Western aesthetics that have kept generations of Western art critics, from Clive Bell to Clement Greenberg, from appreciating Indian art on its own terms. Ramachandran, like most of us, is so deeply enmeshed in Western ways of categorizing and interacting with the world that he mistakes his received categories and practices for universal ones. Although born in India, Ramachandran did not develop a “deep passion for art” - Indian or otherwise - until 1994, when he was already forty-three years old (Ramachandran, 2011: 195). Even at that time, Ramachandran admits: “I had a rather colonial view of Indian sculptures thanks to my Western education” (196). In 1999, after educating himself informally about art for about four or five years, Ramachandran published “The Science of Art.” Unfortunately, these few years of art appreciation were not enough for Ramachandran to overcome decades of accumulated “colonial” prejudices. His single-minded obsession with visuality, for instance, which may seem natural to formalist-minded Westerners accustomed to calling themselves “viewers” and “spectators,” makes little sense from the perspective of pre-modern *rasikas*, or “tasters,” for whom “visual art” is not a separate and privileged category set apart from theatrical performance, music, poetry, dance, religious ritual, the culinary arts or other aspects of life.

Ramachandran shares with Abhinavagupta an interest in both consciousness and aesthetics, as well as the desire to bring the study of consciousness and aesthetics together into a single, coherent theoretical framework. The similarity of their ambitions, however, should not blind us to the vast chasms of cultural difference that separate Abhinavagupta's non-reductive theory of dynamic, intersubjective aesthetic engagement from Ramachandran's reductive theory of mechanistic processing that sees subject and object as eternally alienated from one another. A millennium of scientific and philosophical investigations separates Abhinavagupta from Ramachandran, yet Abhinavagupta's *rasa* aesthetics remains, in many respects, the more complex and sophisticated theory. Unfortunately, because Ramachandran misinterprets *rasa* aesthetics, the parallels he draws between *rasa* and neuroscience, which are based on these fundamental misinterpretations, are also invalid. This is unfortunate, in part, because it contributes nothing of value to the study of Indian or Hindu-derived aesthetic theory, but it is likewise unfortunate because it misses an opportunity to discover in *rasa* insights that may have contemporary, neurophysiological relevance. I contend that there are, in fact, parallels to be drawn between the way the processing of experience is conceptualized in Kashmir Shaivism and the way such processes are understood in neuroscience. A culturally aware, truly cross-disciplinary and non-reductive approach to neuroaesthetics would be capable of exploring these connections in a meaningful and productive way.

The present analysis has focused on problems with Ramachandran's current model of neuroaesthetics and its inability to explain Hindu aesthetic experiences. It will be the task of future scholarship to develop non-reductive theories and methods of neuroaesthetics free from Ramachandran's errors. In the space that remains, however, I would like to return to a two of the terms from *rasa* aesthetics that we have already discussed and which I believe may prove especially useful as emic theoretical frames against which contemporary neuroscientific understandings may be compared. These are *spanda* and *Ābhāsavada*, which I will discuss in terms of "neuroplasticity" and "mirror neurons," respectively.

A. *Spanda* and Neuroplasticity

First, we will consider the concept of *spanda*, or the performative "expansion and contraction" of Shiva. As mercury can expand or contract to fill any shape, or as an actor "expands" or "contracts" to fill any role, so, too, Shiva, by the process of *spanda*, becomes all things. This is a metaphysical concept well outside the realm of modern science. However, the idea that objects contain unique "essences" is an equally metaphysical concept, equally outside the realm of modern science, yet Ramachandran frequently writes of the "essence" of objects, the "essence" of femininity and the "essence" of art. *Spanda* inverts the concept of "essence." Whereas the theory of "essences" (from Plato to Hegel to Ramachandran) presupposes the existence of a metaphysical realm of "pure

forms,” or what Ramachandran calls “innate form primitives,” the theory of *spanda* presupposes only the capacity of creative mental transformation. Rather than thinking of human brains as mass-produced computers that have been “hardwired” (as Ramachandran asserts) to grasp the “essence” of sensory data from discrete objects in identical ways, the theory of *spanda* understands the relationships between minds and their environments as complex, creative and dynamic. One need not convert to Hinduism or accept the literal existence of Shiva in order to appreciate the parallels between the classical theory of *spanda* and the contemporary understanding of neuroplasticity. “Plasticity” refers to the ability of something to expand or contract into a new shape; it conveys the same basic meaning as *spanda*.

Spanda is not the same thing as Ramachandran’s “caricature,” “exaggeration” or “distortion,” however, since these three terms imply a “natural” norm against which the art object is made to deviate, whereas “plasticity” and *spanda* imply no such normativity, only a potentially infinite adaptability, malleability or creative “becoming.” In making this comparison between *spanda* and neuroplasticity I do not wish to overstate the comparison or to imply, as some Hindus might, that the “ancient Hindu sages” knew all there is to know about human consciousness, or that contemporary neuroscientists are only now discovering what *rasa* theorists have known for a millennium or more. My claim is more modest than that. I simply claim that there is an affinity between these two approaches to consciousness, despite the cultural particularities of each, and that there is no inherent contradiction between them. Ramachandran’s theory of

“essences” contradicts both *spanda* and neuroplasticity, since it presumes “innate form primitives” that are static and changeless. As I wrote in Chapter One, Ramachandran’s own experimental research into neuroplasticity helped to prove that “the brain’s trillions of neural connections” were not “laid down in the fetus and during early infancy,” but “that even the basic sensory maps in the adult human brain can change over distances of several centimeters” (Ramachandran, 2011: 28). His own experimental work, in other words, has demonstrated the insufficiency of the old paradigm of the human brain as static and changeless, proving instead that the human brain is highly adaptable, creative and dynamic.

Ramachandran’s Western formalist and “colonial” prejudices about aesthetics prevented him from exploring Indian aesthetics from the perspective of brain plasticity, and his lack of familiarity with theories of *rasa* prevented him from noticing the similarities between the *rasa* approach to consciousness as *spanda* and neuroscientific understandings of the brain as a plastic medium. A non-reductive neuroscientific approach to aesthetics, however, might begin by exploring these similarities. An understanding of consciousness as plastic and dynamic (or of the brain itself as plastic and dynamic) may help to explain the transformative power of aesthetic experiences, as well as the diversity of aesthetic experiences among “viewers” or “tasters” whose life experiences, cultural practices or acquired levels of professional expertise have altered the ways in which they perceive and respond to aesthetic events.

B. *Ābhāsavada* and Mirror Neurons

Another potential site for future neuroaesthetic research would be the class of brain cells known as “mirror neurons,” which Ramachandran also terms “empathy neurons” (Ramachandran, 2011: 117). Mirror neurons are what allow humans to imitate one another or to “feel” one another’s pain (117). Just as I believe the contemporary scientific concept of neuroplasticity complements the Kashmir Shaiva concept of *spanda*, so, too, I believe the concept of “mirror neurons” complements the Kashmir Shaiva doctrine of *Ābhāsavada*, the doctrine of mutual self-reflection, mirroring or “manifestation,” which I discussed in Chapter Two. Ramachandran has theorized that mirror neurons “may have played a pivotal role in our becoming the one and only species that veritably lives and breathes culture” (117). Setting aside for the moment the thorny question of whether the link between “mirror neurons” and “culture” is unique to human beings - a debate that is largely irrelevant to our investigation of the two-way interaction between brain and culture in humans - let us instead restate Ramachandran’s theory in more limited terms: in human beings at least, whether true for other species or not, mirror neurons allow subjects to “imitate others” or to “adopt another’s point of view,” and this ability creates a feedback loop between self and other that allows for the possible emergence of culture (117). Culture, in other words, is a function of intersubjectivity, and the neurological basis for intersubjectivity is the mirror neuron. Mirror neurons are those neurons

that allow humans to imagine themselves as having the same experiences as an external “other” or to reproduce the behaviors or emotions of others within their own bodies. The ability to “mirror” creates a space for virtuality, for play, for creative becoming, which allows for the production of culture.

Mirror neurons may provide a physiological explanation for what aesthetic theorists from Baruch Spinoza and Henri Bergson to Giles Deleuze and Felix Guattari have termed “affect.” *Affect*, for Bergson, is “that part or aspect of the inside of our bodies which mix with the image of external bodies” (Bergson, 60). It is a “mirroring” of the “other” that occurs internally, whereby the experience of the other is felt as a psychosomatic or neurophysiological phenomenon. In recent decades, some art theorists have returned to Bergsonian “affect” as a site of theorization of aesthetic experience that escapes the excessively metaphysical teleologies of Kant or Hegel but which also escapes the excessively “culturalist” position of social constructionists. Much of this return can be credited to the psychoanalytic philosophers Deleuze and Guattari. Deleuze and Guattari defined art as “a bloc of sensations, that is to say, a compound of percepts and affects,” and their definition of art as *affective* continues to influence contemporary art writers (Deleuze 163). The affective quality of art, its ability to evoke “blocs” of physical sensations and emotions could not exist were it not for mirror neurons.

Ramachandran has worked extensively with amputees suffering from “phantom limb” syndrome, a condition which causes patients to experience sensations in their non-existent limbs as if they still existed. An experiment on

one such patient named Humphrey provided Ramachandran with a unique insight into how mirror neurons operate. I quote Ramachandran at length:

Humphrey had lost his hand in the Gulf War and now had a phantom hand. As is true in other patients, whenever he was touched on his face, he felt sensations in his missing hand. No surprises so far. But with ideas about mirror neurons brewing in my mind, I decided to try a new experiment. I simply had him watch another person--my student Julie--while I stroked and tapped her hand. Imagine our amazement when he exclaimed with considerable surprise that he could not merely see but actually feel the things being done to Julie's hand on his phantom. I suggest this happens because his mirror neurons were being activated in the normal fashion but there was no longer a null signal coming from the hand to veto them. Humphrey's mirror neuron activity was emerging fully into conscious experience. Imagine: The only thing separating your consciousness from another's might be your skin! After seeing this phenomenon in Humphrey we tested three other patients and found the same effect, which we dubbed 'acquired hyperempathy.'" (Ramachandran 2011 125, 126)

Humans not experiencing "acquired hyperempathy" will nevertheless experience a limited form of empathy when witnessing other human beings. We

might cry while watching a sad movie if we are able to imagine ourselves as the characters on the screen. If a friend cuts himself while chopping vegetables, we might wince and then feel a strong urge to help him. We do not literally feel as if our own hands have been cut, although Ramachandran's experiment on amputees suggests that we *would* feel this literal sensation of pain were it not for an internal feedback mechanism between mirror neurons in our brains and sensory neurons in our skin that inform us that, although an injury has occurred, it has not occurred on the surface of our own bodies. The neurons in our skin limit the scope of our empathetic response, but the mirror neurons in the brain itself, it seems, are infinitely empathic. This is why Ramachandran writes: "The only thing separating your consciousness from another's might be your skin!" (126). Empathetic response--or affect generally--is a function of neurons in the brain that "mirror" their environment. At the same time, other neurons--sensory neurons in the skin, for instance--introduce limits into the system, creating degrees of separation or mediation between self and other that allow us to experience empathy along a continuum of identity and difference.

It is unfortunate that Ramachandran does not make use of his own insight into mirror neurons in his analysis of human responses to works of art. His apparent lack of awareness of the "affective turn" in art theory does not allow him to intuitively grasp the applicability of mirror neurons to contemporary theoretical debates. At a time when many art theorists have moved beyond universalizing frameworks of past formalist approaches and have turned their attention instead

to affect, as mediated through socio-cultural determinants, Ramachandran continues his quixotic quest for “artistic universals.”

If there is something “universal” that accounts for aesthetic experience, I would propose that mirror neurons themselves provide the basis for a qualified universalism. Mirror neurons are a universal human faculty, and, excepting those humans who are brain-dead or whose mirror neurons are otherwise impaired, they provide the neurological basis for all aesthetic experience. However, the “universalism” of mirror neurons as a universal faculty is not the same as the “universalism” that Ramachandran theorizes. The “laws of artistic experience” that Ramachandran enumerates are valid for some works of art but not for others. Affect, as a process, is universal in the same way that chemical reactions are universal. Not all chemicals react in the same way, and not all intersubjective encounters between subject and object produce the same affects. Mirror neurons are the biological pre-conditions that allow for an affective response to art, but the particular response of a subject is a function of the particular artwork in question and the particular brain and body who experiences it at a particular time and in a particular cultural context. Affective responses are conditioned by processes of learning and enculturation. Hand gestures, for instance, do not mean the same thing in all cultural contexts, and certain combinations of linguistic phonemes will have a different meaning in English than in Russian or Bengali. Affect, then, is a universal potentiality that exists because of mirror neurons, but the particular affective response of a subject will depend upon the complex interplay between mirror neurons and other neurons in which

memories of past experience are stored. Mirror neurons create the condition of intersubjectivity from which culture emerges, but mirror neurons do not dictate the particular forms that culture will take.

All of this brings us closer to the theory of *ābhāsavada* in Kashmir Śaivism. As we have seen in Chapter Two, Kashmir Śaivism uses *ābhāsa* as a technical term both for the qualities that performers “manifest” in their performance, as well as for the “mirroring” or “reflection” or “manifestation” of those qualities within the mind of the experiencer. Every aesthetic experience constitutes a coming-together of the *ābhāsas* of the perceived object and the *ābhāsas* of the perceiving subject or *rasika*. The mirroring of the *ābhāsas* of the object within the consciousness of the subject produces a non-reproducible aesthetic experience. *Ābhāsavada*, thus, describes a phenomenology of aesthetics that is both affective and context-dependent. Every aesthetic experience is the result of a unique combination of subjective and objective waves of *ābhāsas*, which “crash together” in a dynamic process of mutual “mirroring.” Such a theory is fully consonant with contemporary theorizations of affect in art, as well as with Ramachandran’s experimental work on mirror neurons. Were a neuroaesthetic methodology to proceed from an understanding the role of mirror neurons in producing “affects” or “blobs of sensation” or *ābhāsas*, it would have little difficulty accounting for the emotional resonance of aesthetic events. Such a methodology, if applied to the analysis of classical Indian performance traditions, would be theoretically sound. As long as it acknowledges the differing metaphysical assumptions between Kashmir Shaiva

cosmology and the materialism of neuroscience, it would not constitute an imposition of ethnocentric biases in the way that Ramachandran's current methodology does. Kashmir Shaivism, inasmuch as it is a mystical tradition, does not reduce consciousness to the brain alone, and *Ābhāsavada* cannot be reduced simply and unproblematically to a scientific "doctrine of mirror neurons." However, because Abhinavagupta understands the *ābhāsas* of the perceiver through the same metaphor of "reflective" surfaces or "mirrors" that contemporary neuroscientists employ to understand "mirror" neurons, the concept of "mirroring" as a mental process in both Kashmir Shaivism and contemporary neuroscience appears to be an interesting and fruitful site for future research into comparative neuroaesthetics.

C. Conclusion

I have just highlighted two concepts from Kashmir Shaiva philosophy that I consider worth exploring in light of neuroscience. Other concepts, including *rasa* itself, are also worth exploring, but my present purpose is not to outline a complete system of non-reductive, comparative neuroaesthetics as an alternative to Ramachandran's neuroaesthetic theory and method. Such a project is beyond the scope of the present analysis. My purpose is only to demonstrate that an alternative approach to neuroaesthetics is theoretically possible. *Spanda* and *ābhāsavada* are just two emic categories among many that might provide useful sites for future research.

Furthermore, because I am not a scientist, I have not proposed any experimental methods by which a non-reductive neuroaesthetics might proceed. Ramachandran's experimental methods, however, are methodologically unsound and should not be followed. Not only are they based on questionable premises regarding the supposed "universality" of aesthetic experiences, but the devices he considers useful for testing aesthetic experiences are not actually sophisticated enough to measure what he intends them to measure. One of Ramachandran's proposed experiments involves the use of an instrument that measures "galvanic skin response" (GSR), which is "also known as skin conductance response, SCR," and which he claims "is a direct measure of the amount of limbic (emotional) activation produced by an image" (Ramachandran, 1999: 32). GSR is measured using ohmmeters, devices that show "the moment-to-moment fluctuations in the electrical resistance of your skin" (Ramachandran 2011 70). According to Ramachandran, GSR "provides an excellent, highly reliable index of your emotional arousal when you look at anything" (215). One experiment he proposes involves measuring the GSR of an "English art historian who feigns indifference to Chola bronzes" (215). Ramachandran predicts that, when shown an image of a Chola bronze (and, yes, Ramachandran assumes that a reproduction of an artwork may be unproblematically substituted for the genuine article in an experimental context) the ohmmeter should "register a whopping GSR" (215). As Ramachandran aphoristically concludes: "His skin can't lie" (215).

The problem, as Ramachandran reluctantly admits, is that an ohmmeter “can’t determine positive from negative responses” (216). Thus, the English art historian’s “whopping GSR” may indicate a strong sense of revulsion just as easily as it could a closeted enthusiasm. It may even indicate annoyance at the experimenter for showing him an image of a work toward which he had already expressed verbal indifference. “The criticism that the test can’t discriminate negative arousal from positive arousal... isn’t as damaging as it sounds,” Ramachandran contends, “because who is to say that negative arousal isn’t also part of art?” (216) Any response at all, positive or negative, could produce “a whopping GSR,” which Ramachandran would then interpret as a meaningful indication that an “authentic” aesthetic response had occurred. What, then, is the value of such a test, if it is designed in such a way as to confirm Ramachandran’s initial hypothesis, leaving little room for his hypothesis to be falsified?

Ohmmeters are one of the components used in polygraph, or “lie detector,” tests. Because polygraph tests triangulate GSR data with other data, such as pulse rate and respiration, polygraphs represent a more sophisticated attempt at measuring psychological responses than ohmmeter testing alone. However, even polygraph testing is viewed with great skepticism by mainstream scientific organizations. The American Psychological Association considers polygraphs “theoretically unsound” (Adelson, 71), and the National Academy of Science labels them “unreliable, unscientific and biased,” because, according to their evaluation, up to “99.6%” of all “positives” generated by polygraph testing are likely to be “false positives” (National Research Council, 213). If polygraphy,

which triangulates GSR with other kinds of data, is unreliable as a simple indicator of deception, then how could one expect GSR data alone to provide an “excellent, highly reliable index” of something so complex and difficult to define as “aesthetic response”? Ramachandran’s belief that “skin can’t lie,” is naive and unscientific.

Moreover, as I discussed in relation to wine-tasting, the idea that the human senses and the human brain are simple measuring devices seems to be based on an outdated neurophysiological model, whereas most contemporary neuroscientists understand the perception and interpretation of sensory experiences to be much more fluid, dynamic and creative than previously imagined. Even if one were to accept GSR data as at least a “crude” indicator of limbic activation, it would still provide little insight into the complexity and creativity of human aesthetic responses. In the absence of more sophisticated and precise technologies, then, we must not casually discount the qualitative approaches currently employed by anthropologists, as Ramachandran does. Even as inventors develop better methods for measuring neurophysiological responses, such methods should still be used in concert with qualitative methods, since the ways in which individuals conceptualize and express their own experiences is at least as important an indicator of their perceptual realities as quantitative neurophysiological data is.

A purely “culturalist” approach that ignores the materiality of the body is reductive, just as a purely biological approach that ignores personal narrative, socio-historical context or cultural practice is reductive. A non-reductive

neuroaesthetics, therefore, must be polymethodological. As Manuel Vázquez recommends: “The notion of habitus [as understood by anthropologist and practice theorist Pierre Bourdieu] has to be brought into conversation with cultural neurophenomenology, particularly around the notion of enaction, which offers a holistic view of practice as a dynamic interplay of neurophysiological, cultural-historical and ecological networks” (Vázquez, 2011: 246). If mirror neurons provide the neurological basis for intersubjectivity, out of which “culture” is produced, then anthropologists, art historians and scholars of religion need to take neuroscience seriously. At the same time, because the modes of intersubjectivity that mirror neurons allow for are expressed as cultural performances (which are “embodied” and “emplaced”), then neuroscientists cannot study aesthetic responses, or any other aspects of “culture,” as if they were occurring only in the brain or in the electrical signals of the skin. The work of practice theorists, as well as others in the social sciences, the arts and the humanities, is absolutely necessary to provide insight into how people produce experiences and perform identities as they dynamically interface with the world around them.

The field of religious studies is in a good position to engage in exactly the sort of cross-disciplinary collaboration that a non-reductive approach to neuroaesthetics demands. Religious studies is polymethodological, incorporating methods from art history, literary studies, anthropology, history, psychology, economics and other fields. The scholar of diasporic religion, Thomas Tweed, has even proposed that religious scholars consider their subject

in terms of a “hydrodynamics of religion” (Tweed, 2006: 172) that would acknowledge the “mutual intercausality of religion, economy, society and politics” (60). If religious experiences, or aesthetic experiences, are understood as the convergence of complex, multidirectional “flows,” then we must inevitably adopt multiple, complementary methodologies for analyzing these flows. Manuel Vázquez, who believes Tweed’s “hydrodynamics of religion” complements his own “non-reductive materialist” approach to religion, also asserts that religious studies “has great potential to cross-fertilize with materialist approaches to religion in socio-biology, evolutionary psychology, ecology, ethology and the neurosciences” (Vázquez, 2011: 328). Today, there is a growing contingent of religious scholars who are interested in collaborating not only with those in the social sciences and the humanities but with researchers in the basic sciences, as well. Cross-disciplinary work is never easy, since each discipline approaches the world from its own theoretical and methodological paradigms, but if we are sincere in our desire to overcome the reductivism of both social constructionism and biological materialism, then we must collaborate with one another.

Rasa aesthetics can be studied through the lens of religion, literary criticism, art history, theatre history, performance theory, psychology and philosophy. Anthropologists such as Kalpana Ram (2000) and Vasudha Narayan (2003) have used qualitative, participant-observation methods to explore the meaning of *rasa* in the contemporary lives of diasporic Hindus. Each of these methods is worthwhile, and, as in the ancient and oft-repeated Indian metaphor of the blind men and the elephant, each method reveals a different aspect of *rasa*

aesthetics. Neuroscience cannot possibly replace these other methods of investigation. It may, however, reveal more of the elephant. Like all theories and methods, neuroscience must proceed humbly, acknowledging its own epistemological limits. It must also acknowledge that the elephant itself is moving and changing: what *rasa* means in one context is not applicable to all contexts. A neuroaesthetic approach to *rasa* cannot possibly hope to explain all human aesthetic experiences across history, culture and geography. It may, however, provide insight into the biological grounds of certain aesthetic experiences. If used in concert with insights from art history, religious studies and other disciplines, these biological insights may enlarge our view of how *rasa* comes to be perceived and embodied by particular *rasikas* in particular contexts. It may even offer insights into the neurophysiological processes by which intersubjective experiences become possible in general. Such insights would be useful to scholars in many disciplines. In order to be useful, however, neuroaesthetics must first abandon its accumulated Western aesthetic prejudices and open itself fully to cross-disciplinary dialogue with social scientists, philosophers and scholars of art and religion. It is my hope that genuinely cross-disciplinary research will be carried out in the future under the aegis of a new, non-reductive neuroaesthetics. I am grateful to VS Ramachandran for laying down the initial gauntlet in “The Science of Art” and issuing an implicit challenge to scholars in other fields to incorporate neurophysiological perspectives into their own methods for analyzing Indian aesthetics and Hindu religious experiences. Even though Ramachandran’s approach is reductive, misleading,

naïve and overly ambitious, he has, nevertheless, opened a space for cross-disciplinary dialogue that did not previously exist. Let us accept his challenge and continue the difficult, cross-disciplinary work that a non-reductive neuroaesthetic approach demands.

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