This article was downloaded by:[Beltrán, Carlos López] [Beltrán, Carlos López]

On: 11 June 2007 Access Details: [subscription number 779424812] Publisher: Routledge Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of Spanish Cultural Studies Publication details, including instructions for authors and subscription information:

http://www.informaworld.com/smpp/title~content=t713436003

HIPPOCRATIC BODIES. TEMPERAMENT AND CASTAS IN SPANISH AMERICA (1570-1820)

To cite this Article: Beltrán, Carlos López, 'HIPPOCRATIC BODIES. TEMPERAMENT AND CASTAS IN SPANISH AMERICA (1570-1820)', Journal of Spanish Cultural Studies, 8:2, 253 - 289 To link to this article: DOI: 10.1080/14636200701431073 URL: http://dx.doi.org/10.1080/14636200701431073

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: http://www.informaworld.com/terms-and-conditions-of-access.pdf

This article maybe used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

© Taylor and Francis 2007

Carlos López Beltrán¹

HIPPOCRATIC BODIES. TEMPERAMENT AND CASTAS IN SPANISH AMERICA (1570–1820)

Retorting to a European barrage of seemingly offensive, defamatory statements that imputed inferior physiological characteristics to human beings from the Americas, Creole (Criollo) physicians and naturalists-from the seventeenth to the early nineteenth centuries—dedicated powerful, rhetorically charged, theoretically loaded arguments to the undermining of the claim that Americans were physically inferior due to climatic conditions.² In what some have called a patriotic natural history, they organized all the theoretical and empirical resources at their disposal in order to prove that neither in the realm of natural wealth (mineral, zoological and botanical) nor in the domain of human capacities (v.gr. ingenio),³ were the Americas disfavored. In fact, quite the opposite was the case, at least according to an increasing number of authors who, towards the close of the eighteenth century,⁴ privileged the domain of scientific understanding of nature as a field in which to emphasize not only the novelty and richness of the New World but its superiority and independence with respect to the old one. Leaving aside political considerations, these Creole savants were claiming (and disputing with the Europeans) the authority to speak not only about (and in place of) Nature, but also within it, proffering their (physical and moral) human and social bodies as direct witnesses of the occurrences and developments taking place in their territories. Their patently different situation with respect to their European counterparts (both Spanish and other) gave them divergent interests, aims, and resources, and pushed their scientific enterprises into directions and results that opened an alternative space in the scientific field, challenging the deeper strata of European theoretical consensus.

It is within this stretching of boundaries and disturbance of background assumptions that I will situate my analysis of Spanish American Hippocratic theory between the seventeenth and the early nineteenth centuries, focusing on its relationship to the emergence of racial classification, particularly with respect to the tensions and conundrums generated by the proliferation of what eventually came to be known as *mestizaje* or racial admixture in the region. My aim is to show how the complex social and "biological" situation of the Sociedad de Castas in Spanish America establishes a scenario that exposes the tensions and ruptures in western discourses about the natural. The different geographical situations of the authors, I will try to show, produced contrasting (and disruptive) descriptions of the same phenomena, with the Europeans striving to impose a new Euro-centered world order, and the Americans variously accommodating their local views to that same theoretical framework. At the same time, the physical and moral reality of human diversity in the region developed in ways that escaped the frames and descriptions of the European and the Spanish-American savants. In particular, it was difficult to categorize and control the runaway phenomenon of *mestizaje*.

Routledge Taylor & Francis Group Journal of Spanish Cultural Studies Vol. 8, No. 2 July 2007, pp. 253–289 ISSN 1463-6204 print/ISSN 1469-9818 online © 2007 Taylor & Francis http://www.tandf.co.uk/journals DOI: 10.1080/14636200701431073

Tainting the chain of being

Let me start rather late in the game, in the early nineteenth century, when the Peruvian physician Hipólito Unanue, in his Observaciones sobre el Clima de Lima (1815, 1806) took a sharp polemical stance against the well known hierarchical ordering of human races according to facial angle proposed by Peter Camper (1722-1789).⁵ Camper's typology deployed the age old linear arrangement of the Great Chain of Being to sort humanity into a geographical/racial hierarchy. Near the top, neighboring the angelical (embodying beauty, talent, and creativity in all respects), were the Europeans (with their broad facial angles). At the bottom, barely above orangoutangs, was the slot occupied by Africans (with narrow facial angles, physiognomically expressive of stupidity). After Unanue describes Camperian notions, which he grants have plausibility given recent states of affairs in the world, he then counters the sorting principle, in the traditional erudite style, by arguing that if one looks at history and human natural history more carefully, one finds that neither backwardness nor high intellectual or artistic achievement have been parcelled out to only one race; neither for that matter, has beauty. Europeans were once savages while in Africa and Asia civilization and science prevailed. Rational spirit, he claims, has been evenly distributed throughout the Earth. What is more, he argues, beautiful peoplepresumably by European standards-have been found in Senegal, Anatolia, Tahiti, and even in some American tribes, and — incidentally — it has always been possible to find, even in recent times, some very ugly, malformed European groups. He makes similar cases for creativity in the arts and literary crafts, finding no European monopoly of those, either. He finally touches ground in South America. Particularly worried, as were generations of Creole intellectuals, about the calumnies concerning their physical feebleness and their presumed lack of intelligence and creativity, Unanue tackles the question in climatological and physiological terms. While never denying that the temperament of the land has a huge influence on bodies and minds, and while accepting the physiological claim that the humid climate of the tropical regions, even in the highlands, makes the fibers of the body less compactly packed, including, especially, the nerve fibers (so important for the intellect), Unanue denies that this brings about altogether disastrous results. The exercise of scientific rationality might require stronger willed persons in these regions than in Europe, he speculates, but on the other hand the more susceptible and movable nerve fibers produce a greater degree of sensibility and acuity of perception, which are the best physical bases for the kind of active, prolific, creative imagination needed to excel in artistic or literary enterprises. Unanue is here rehearsing, in the language of fibers and sensibility (the Boerhaavian and Hallerian themata he learned from Erasmus Darwin), the very same defensive topoi that had been displayed in humoral, Hippocratic language by previous Creole physicians (in New Spain and elsewhere). Unanue concludes his case against Camper with this declaration: "No puede, pues, la diferencia de facciones argüir diversidad de talentos; y cuando esto así sea, no tiene de que gloriarse la Europa, pues si en ella se encuentran naciones bien formadas, las hay tambien en otras partes de la tierra" (96). South American climes, then, have bounties to contribute to the perfection of the human constitution. But alas, not all of its inhabitants can profit at the same level: "Estas preciosas prerrogativas de clima no se distribuyen con

igualdad en todos los que nacen en él. Varían según la proporción en que se mezclan las tres diferentes razas que engendran a los habitantes ..." (103-04). To elaborate this point, the author introduces his version of the by then well established schema of racial admixtures and dilutions (castas) characteristic of the American colonies. Here, the relative proportions of European, African and Native American (Indian) bloods are related to the qualities (especially skin color) of the different human kinds. Unanue takes as a case study the example of the population of Lima.

Two different lists are presented (Tables 1 and 2). One describes what Unanue sees as "La conservación del color primitivo y regresos hacia él en sus degeneraciones," while the other deals with "degradaciones del color primitivo."⁶ Each list makes a different general moral and political statement, based on a division between the "ruly" and the "unruly." In the first, Unanue includes those whose reproductive behavior is oriented towards the conservation or restoration of the original physiological and political order. The second one depicts the uncontrolled admixtures of the unruly, a landslide where impoverished bodies and minds are produced. To make this evaluation clear, Unanue adds descriptions of the bodily and moral characteristics of each kind, emphasizing that they are the product of direct observation, in a claim to local authority unavailable to foreign, unreliable authors. Leaving the fine details aside, Unanue believes that strength from the Africans, imagination from the Americans, and talent from the Spaniards combine to create useful and improved human beings in the "ruly" trajectories. On the unruly side, all these good qualities are watered (or bloodied) down and mostly "las malas inclinaciones" are inherited from the parents.

What we have then, in Unanue's argument, is a replacement of a rigid, linear, unmovable hierarchy—in which geographical-genealogical racial categories were both typologically characterized and essentialized—with a dual scheme, fluid and nonlinear, that preserved the hierarchical positioning of the white European while nevertheless allowing for both physical and moral contributions of the other races. Unanue's scheme reflects the necessity of reorganizing categories for the classification

| Enlaces | | Hijos | Color | Mezcla | () |
|---------|-----------|-----------|--------|----------------------|-----|
| Varón | Muger | - | | | |
| Europeo | Europeo | Creole | Blanco | | (1) |
| Creole | Creole | Creole | Blanco | | (2) |
| Blanco | India | Mestizo | Blanco | | (3) |
| Blanco | Mestizo | Creole | Blanco | | (3) |
| Blanco | Negro | Mulato | | ½ Negro ½ Blanco | (4) |
| Blanco | Mulato | Quarterón | | 1/4 Negro 3/4 Blanco | (5) |
| Blanco | Quarterón | Quinterón | | ⅓ Negro ⅔ Blanco | |
| Blanco | Quinterón | Blanco | | | |
| Negro | India | Chino | | | |

TABLE 1 Conservación del Color Primitivo y regreso hácia él en sus degeneraciones

Source: adapted from Unanue 104-106.

| Enlaces | Hijos | Mezclas |
|--------------------|--------------|---|
| Negro/Negro | Negro | (6) |
| Negro/Mulata | Zambo | ¾ Negro ¼ Blanco |
| Negro/Zamba | Zambo Prieto | ⅓ Negro ⅓ Blanco |
| Negro/Zamba Prieta | Negro | ¹⁵ / ₁₆ Negro ¹ / ₁₆ Blanco |
| Negro /China | Zambo | |

TABLE 2 Salta-Atrás, ó degradaciones del color primitivo

Source: adapted from Unanue 104-106

of human beings in a complex world of ever increasing *mestizaje*, which was becoming prevalent in many American colonies by the eighteenth century. This had to be done in such a way that it preserved a desirable order, faithful to the Crown and the Spanish governing class, but allowed for the inevitable social and political improvement of the mostly mixed blood Americans. Instead of the fixed ladder or Chain of Being, we have—to use an anachronistic image—a moving escalator on which virtuous families could ascend, in a few generations, if not to the top (which was strictly reserved for white European noblemen with no blood stain), at least to a comfortable middle level.

Unanue's evaluation of the racial situation of the population of eighteenth-century Lima condenses, in a few pages, ideological assumptions Creole savants like himself had developed over two centuries in order to accommodate the complex set of novel intellectual, political, and, to some extent, scientific conditions (and demands) with which they were confronted. Such a dual and fluid scheme is the outcome of stringent and conflicting interests that pressed hard against Creole minds and lives. The evolution of administrative rationality in the colonies (with regard to tax collection, slave management, the granting of rights and privileges, etc.) required a set of home grown, cognitive classificatory devices based on the physiognomic and "racial" differences of the original geographical groups and their various "combinations." The production of a default template for fairly and truthfully analyzing the qualities, capacities, virtues and defects of each human type was necessary to fulfill administrative tasks, and, for many reasons, it fell on Creole shoulders. In any case, for this intermediate Creole class to claim a place within the hierarchy, it had to confront and disarm disdainful and ill-intentioned European evaluations of Americans. Related to this was the task of leaving open avenues of social improvement to a wide range of "racially" and "ethnically" diverse local families that had for many decades (and in some cases centuries) been part of the social tissue.

These Spanish American colonial scenarios forced the rethinking and reevaluation of theoretical tools that had been developed in Europe to deal with different types of relationships between human groups. The deeply rooted medical (Hippocratic-Galenic) viewpoint, with its encoding of the physical and moral characteristics of both human individuals and genealogical groups, had to be adapted to the physiognomies of a new *mestizaje* reality and a new set of social interests and constraints. Unanue followed his New World predecessors in playing a subtle game of manipulating the physiological devices of medical theory. While the relationship between the physiological constants of the original bodies (the white Spanish body, the Indian body, and the African body), remained in their traditional hierarchy, a new social space opened up with the emergence of a *mestizaje* one, in which bodies were understood and located relative to the degrees and kinds of "racial" mixture they contained. The so-called *sociedad de castas* that was designed to create such a space provides rich material for the study of theoretical classificatory disputes across geographically distant centers and within local interest groups.⁷

Castas and casta painting

In 1770 the viceroy of Perú, Manuel Amat y Junyent (1704-1790), sent to Spain a series of paintings depicting the racial mixtures that could be observed in his territory. The pictures were crafted following a format that was by then very developed in New Spain (and which is now referred to as casta paintings), which depicted and named men, women, and their offspring according to the mixtures and dilutions of the three original geographical groups. In this genre, the stereotypical format was as follows: each frame showed the picture of a young "racially" diverse couple, together with their small child, who has an intermediate coloring, and usually a label for the (new) kind he/she represented. The main theme of Amat's set, as in all casta series, is the whitening⁸ of two lineages through successive marriages with Spaniards, after an original episode of mixing. One lineage comes from a Spanish (white) and Indian (copper) couple, while the other is of a Spanish (white) and African (black). The successive children of the Indian whitening series are called "mestizo," "castizo" and (back to) "Spaniard". Those of the African series are called "mulato," "cuarterón de mulato," "quinterón de mulato", "requinterón de mulato," and "puchello" (or white again). In the letter of presentation that accompanied his gift, Amat wrote that the paintings had a pedagogical purpose:

Por ser uno de los principales ramos de raras producciones que ofrecen estos dominios—la notable mutación de aspecto, figura y color que resulta en las sucesivas generaciones de la mezcla de Indios y Negros...a que suelen acompañar proporcionalmente las inclinaciones y propiedades. (qtd. in Katzew, *Casta* 47)

Amat's use of the word "producciones" is noteworthy here, emphasizing physicality and suggesting that it is the land itself that produces these kinds of beings. Equally notworthy is the absence from Amat's Peruvian series of the other, "unruly' branches— Unanue's "Degeneraciones"— who did not whiten from generation to generation, and could be read as outliers, straying back into the shadows. This absence becomes particularly evident when Amat's series is compared to the casta genre as it was concerned and practiced in Mexico, where the "unruly mixtures" were a complementary part of the pictorial program. Another fact worth mentioning is that in Peru there was a different view than in Mexico of the branch that originated in the mulatto. In Amat's pictures it took twice the number of generations of whitening for a mulatto's descendents to reach the status of the *puchella* (a white, albeit not a pure one) than it did for the descendants of a mestizo. By contrast, in Mexican casta paintings the mulatto branch never really reaches a white destination; the offspring of a very white descendant (albino), is typically a surprisingly dark atavistic throwback (or "tornaatrás").⁹

Humboldt provides an introduction to the Mexican scene of *mestizaje*:

The Mexican population is composed of the same elements as the other Spanish colonies. They reckon seven races: 1. The individuals born in Europe, vulgarly called *Gachupines*; 2. The Spanish Creoles, or whites of European extraction born in America; 3. the *Mestizos*, descendants of whites and Indians: 4. the Mulattos, descendants of whites and negros; 5. the *Zambos*, descendants of negros and Indians; 6. the Indians, or copper-coloured indigenous race; and 7. the African negros. Abstracting the subdivisions there are four castes: the whites, comprehended under the general name of Spaniards, the negroes, the Indians, and the men of mixed extraction, from Europeans, Africans, American Indians, and Malays ... (130)

Apart from using zambo instead of lobo (which was the common Mexican name for Humboldt's number five) our eyewitness has grasped the system. He gets mixed-up further on when he tries to account for what he calls the "refined vanity" that has enriched the Mexican vocabulary by giving names to every subtle variety of coloration that results from the degeneration of the original stock with its fixed coloration. So when the seven by then basically well established categories go on to generate mixtures among themselves, the naming of castas becomes, for Humboldt, "a difficult matter." He mentions mixtures that give rise to a "chino," or to a "zambo" again, and a "zambo prieto," a "cuarterón," a "quinterón," and other generations called by peculiar words, but he confuses the vocabulary from different regions. Oddly enough, he misses several of the stronger Mexican human color names ("pardo," "coyote," "lobo"), not to mention some of the more "refined" or "vain" ("barsina," "albarazado," "zambaigo"), and some of the really weird ones ("noteentiendo," "tenteenelaire"). This is not the place to embark on a lexicological digression that could help us understand the production, function, and general meaning of these classifications. My interest here is solely to show how in Mexico, as partially revealed in the genre of castas painting, an important struggle took place between what I have called the "ruly" organization of castas societies, defined by a hierarchical scheme in which the pure blood white Spaniard represented the upward bound, and the "unruly" proliferation—and recognition—of other kinds of mixed, heterogeneous people without such a narrative focus.

A typical casta painting sequence (between twelve and sixteen images) made in Mexico in the eighteenth century would start with a mestizo whitening branch (three pictures: *mestizo*, *castizo*, *español*). It would then proceed to a mulato quasi whitening branch (*mulato*, *morisco*, *albino*, *tornaatrás*). Next, it would depict, in an open-ended series of pictures, the "unruly" line, beginning with the scion of the couple representing the two nonwhite groups (Indian and African) in the *lobo*. Next would come the picture of the unruly *coyote* that results from *mestizos* that mix back into the Indian or other lower casta groups. If the *coyote* chose another Indian or unruly partner, the story might go, his child would be called (most probably) a *chamizo* (burnt skin). We might also see registered the appearance of one or different kinds of



FIGURE 1. José de Ibarra, 1725; De Español e India, Mestizo (oil on canvas, Museo de América,



FIGURE 2. José de Ibarra, 1725; De Mestizo y Española, Castizo (oil on canvas, Museo de América, Madrid)







FIGURE 4. Andrés Islas, 1774; De Español y Negra, nace Mulata (oil on canvas, Museo de América, Madrid)



FIGURE 5. Andrés Islas, 1774; De Español y Mulata, nace Morisco (oil on canvas, Museo de América, Madrid)



FIGURE 6. Andrés Islas, 1774; De Español y Morisca, nace Albino (oil on canvas, Museo de América, Madrid)



FIGURE 7. Andrés Islas, 1774; De Español y Albina, nace Torna atrás (oil on canvas, Museo de América, Madrid)



FIGURE 8. Andrés Islas, 1774; De Indio y Negra, nace Lobo (oil on canvas, Museo de América, Madrid)



FIGURE 9. Andrés Islas, 1774; De Indio y Mestiza, nace Coyote (oil on canvas, Museo de América, Madrid)



FIGURE 10. Andrés Islas, 1774; De Lobo y Negra, nace Chino (oil on canvas, Museo de América, Madrid)



FIGURE 11. Andrés Islas, 1774; De Cambujo e India, nace Tente en el aire (oil on canvas, Museo de América, Madrid)

chino resulting from mixtures of blacks with lobos or Indians. Or the appearance of a calpamulato resulting from having a child of mulatto and mixed Indian ancestry. And on we could go, into unnamed territory, for, in fact, at this depth in the unruly branches of the casta painting genre, the determinants for any given classificatory name are not strictly specified by the blood-mix background of the parents and have more to do, probably, with peculiar physiognomical features, like wavy hair, "oriental" eyes, and skin coloration. These names were not applied as fixed classificatory labels specified by the percentages of blood of different kinds, as several naïve eighteenth-century and early nineteenth-century European scientists believedand whose belief was passed on to anthropologists, historians, and art historians who came later. Historians who have more deeply investigated the castas system in different settings, such as the inquisition trials, military recruitment, population censuses, registrations of births and deaths, etc., have found no standard blood-based system, but rather one in which the really important categories in terms of political and social stratification were represented by the Spanish, Mestizo, Indian, and African, while the rest were collectively known as castas, the lowest of the low, reaching down to the level of slaves. In the characterological subtleties captured in the paintings and in the reports of travelers and savants, in which evaluations are made of each type's moral and spiritual proclivities, we find a clear intention to describe and name the diverse, novel, and heterogeneous possibilities of difference that were emerging in this period.

Many of the extant colonial documents addressing castas ideology are strewn with the tensions and anxieties that shaped those societies. The documents abound with people devising ways to pass for Spanish, or to avoid being taken for mulatto, or to be classified as Indian instead of as some other casta identification. Two children of the same parents could be "classified" with different names because of their different skin color. Some marriages were disallowed because of "mistakes" made when registering one or the other of the would-be spouses at their baptism. Plus there was the continuous influx of impoverished Spaniards to the colonies who traded on their amazingly white skins to be taken in (and promoted up) by the colonial elite. In many ways the castas system projected its tentacles and determined the destiny of people. As a hierarchical arrangement based on a combination of lineage and genealogical management, dependent on crude physical and physiognomic evaluations, it still is poorly understood.¹⁰ The European savants of the eighteenth and nineteenth century who learned about it tried to impose upon it a rational, racial arithmetic (based on proportions of blood and dilutions) that is clearly insufficient. What I propose in the rest of this work is to introduce two related descriptive and evaluative resources that in my opinion must be taken into account in order to properly reconstruct the wider frame of cultural representations and evaluations within which the castas system was put in place. These are, on the one hand, the traditional ideology of purity of blood developed in the Spanish world in the early modern period, and, on the other, the Spanish brand of the medical Hippocratic conceptions of the body, with the geographic and climatic determinations that these conceptions entailed (see Aguirre Beltrán, Obra and "El sistema"; Ben Vinson III).

Purity of blood: from the moral stain to the bodily stain

The abstract schemes of the castas, with their multitudinous blood admixtures and dilutions, whitening marriage sequences, and disruptive anarchic mélanges, developed slowly from the last decades of the sixteenth century until the end of the eighteenth century. They appear at first as a top-down measure promoted by the colonial governing class. The aim was to control the ever more surprising and variegated demographic elements in the territories by way of situating and classifying types.¹¹ Over the course of this development, an interplay of variously valued factors shifted attention between general ailments of the social body to the details of the physical and physiological nuances of individual bodies, using a system of peculiar physiognomic markers as a stabilizing resort. Of interest to me will be how medical and other notions available to European elites were used to confront these issues and what meanings were attached to signs linked to bodily features, both of original groups and of the mixtures—skin color, dominant humor, and character.

In his brilliant investigation of the African presence in Mexico, Gonzalo Aguirre Beltrán has shown that the goal—or the functionally crucial component—of the Mexican castas system was neither biological nor geographical purity but, rather, the clear-cut social isolation, exclusion, and stigmatization (in different degrees) of both the native and the slave populations (*Obra*). The scheme was devised to secure the monopoly of wealth and privilege arising out of the exploitation of the labor of others by Spaniards and Creole elites. As Jean-Paul Zúñiga has eloquently shown, in order to maintain this class division, the Spaniards mobilized their most immediate ideological device—purity of blood.

The Spanish notion of purity of blood was constructed in late medieval and early modern times in response to the perceived impurity of offspring of mixed marriages when both Muslim and Jewish populations coexisted with the Christians. Throughout the peninsula, the purity system was employed as a hierarchizing instrument founded on the notion of a hereditary transmission (down the lineage) of a spiritual or moral stain resulting from any genealogical link to infidels (*moros* or *judios*). The impurity of the descendants of mixed marriages was thus derived from an evil (stain, impurity) that although transmissible through reproduction (generation) was not connected to physical or physiological elements, but rather to moral qualities and inclinations, derived from the rejection of Jesus as savior (Zúñiga). Zúñiga rightly makes the point that such a notion is at a conceptual distance from what came to be known in the nineteenth century as miscegenation, *mestizaje*, or racial hybridization.

When this *pureza de sangre* idea is applied in the Spanish American colonial situation, neither native Americans nor the imported Africans can properly occupy the niche of the Moors or the Jews. They are not infidels but pagans: potential sheep for the Christian flock who cannot be defined on the basis of their rejection of Christ, having lived in a state of ignorance about his very existence.

We cannot interpret the first mixed children of (male) Spaniards and (female) American Indians, during the initial decades after the Spanish invasion as having been seen (or represented) in terms of a racial mixture, *mestizaje*, or hybridization of any kind, nor can we impose this template on the generations that resulted from Spanish and African contact after the forced and brutal introduction of the latter to the New World.

The idea of a "mixture of races" is absent from the way that the question of hereditary purity is conceived and absent also from the relationship among different peoples before the discovery of America: the Jew and the Muslim are not then the equivalent of the Indian, in the same way that the impure ones are not equivalent the mestizo. (Zúñiga 435)¹²

Eventually it was the colonial situation itself which, with the fatal development of its social and sexual links, was responsible for reifying the spiritual and genealogical notion of *pureza de sangre* into an alternative notion of purity focused on the geographical/genealogical origins of the individuals (Spanish-European, Indian-American, slave-African) and on the peculiarities of their physical complexion (white, dark, black). Social perception is thus displaced from the moral to the material components of heredity—the physical bases of temperaments—with the hue of the complexion conceived, in Hippocratic terms, as a predominance of one given humor or the other, with all the accompanying character implications. We find evidence for this in the use, during the colonial period, of the theory of temperaments to account for the physical and moral peculiarities of Spanish (both Creole and European), Indian and African individuals. Although their mental and emotional dispositions are always taken into account, the color of the skin plays an increasing role in the determination of the qualities and hierarchies of individuals, until the eventual establishment of what some have called a *pigmentocracia* (see Hanke).

From the beginning (c.1570), the pursuit of an efficient (and tunable) mechanism for excluding undesirables from the elite generates a hierarchical axis that can be drawn from the *Español* on the top through the *Indio* to the *Negro* on the bottom, thus, in theory, organizing all the diverse products of their sexual commerce. The model that justifies this hierarchy is Spain's *pureza de sangre* regime (see Kubler 121-35). The colonial mechanism is structured by variables similar to the Iberian one, but modifies the criteria for enacting exclusion and stigmatization. Indians and Africans are not in principle morally evil or impure; instead, they are physically (or physiologically) tainted. From this point onward, the original stain that American families seek to wash away will be a "racial" stain materialized mainly in colored skin, but also in a number of other superficial signs or indicators: pigmentation in the nails or the eyeball, texture of the hair, hairiness, smell, etc.

In the initial optimistic scheme, the eradication of the stain (Indian or African) from the family, after a few generations, is quite possible, given that the stigma is not in the stigmata, not even in blood through which it is transmitted, but in the body, colonized by the presence of African or American humors. Humors, in any case, may be diluted, equilibrated, or modified by adequate sets of circumstances. There is no hereditary fatalism in this early period, in which the interests of the Spanish and the Creole groups lay much closer together. The stigma functions socially rather than "naturally," and can be escaped through social, political, and even judicial processes (in the famous demands of "gracias al sacar") that verify *españolización* (and with it fidelity to the crown), rather than through the real whitening of a family (see Aguirre Beltrán; Stolcke). Those who manage it may be "taken for Spanish" (*tenidos por*

españoles) from then on. Mestizo families with Indian ancestors find the *españolización* much easier than those with African blood. These processes play out relative to the pure-blood Spaniards, guarding against the mixture of their lineages with other origins.

This first *mestizaje* period (1525–1600), then, witnessed no social rejection due solely to bodily, physiognomic differences, nor were notions of a biological hiatus of any kind in circulation (see Zúñiga; Salas; Aguirre Beltrán). This was an era of mixtures of different blood lineages—of bloods that were themselves (especially the European) very heterogeneous mixtures of previous encounters. And I'm referring to "mixture of bloods" not in a metaphorical or metaphysical sense, but in an aristocratic, hereditary, genealogical, and almost spiritual sense (which should not imply immateriality). The technical vernacular of the period suggested a humoral mixture, an Hippocratic battle of fluids (blood, phlegm, bile, melancholia) contained in human bodies in intimate relationship themselves with broader containers populated with meteorological, astrological, and cosmic influences. It was the land itself—its temperament—that was responsible for balancing the imbalanced, for fine-tuning the bodies, for effecting their homogenization and Americanization.

The struggle of the temperaments

The space of representation and references (the epistemic space) in which the visual and written discourses were displayed, along with the various other symptoms and traces we have at our disposal, do not easily reveal their topology. Recent scholarly work, especially on the pictorial genre of the casta paintings, has plugged some but not all gaps in our understanding. In my view, a crucial missing element is the part played by the sciences—not the racial sciences that came after this period and have produced a sort of scrim between it and the contemporary historian, but rather the medical knowledge coeval to this era. And not only in the European versions of it, but particularly in its deployment by American savants of heuristics to promote their interests and understand their circumstances. As our initial description of Unanue's work shows, the space of the seventeenth- and eighteenth-century Spanish American gaze towards the physical differences of human types, with its strong focus on skin color difference, is constructed through the local adaptation of Hippocratic-Galenic medicine, whose doctrines about the body, temperaments, and complexions had been complexly integrated into the Catholic, biblical tradition. My argument is that there is a correspondence between the intricate social grammar developed in this era that took skin color and family ascent as slippery indicators of an individual's social echelon, and another grammar, this one material, physiological, and temperamental, used to rationalize the former, and lending itself to social negotiation. I will now turn to the task of describing this latter, underlying grammar.

Temperament was the central anthropological notion of Hippocratic-Galenic medicine, allowing for classification into types and specification of pathological and psychological inborn dispositions. It is crucial to understand how such an all-encompassing concept—one which synthesizes everything human, the general and the singular—the common and the idiosyncratic, was transported into the New

World, and how it created there such a complex semantic and epistemic space, one characterized by its great plasticity and subtlety, and described by Roger Bartra as a "sophisticated translation apparatus." Our problem is to see how such a theoretical and practical set of devices becomes a grid through which the apparition of novelty in or among the castas (of what viceroy Amat called "nuevas generaciones," meaning new material bodily productions) could be described and understood. We have already seen the impingement of Hippocratic temperamental theories in the early nineteenth century attempts of Unanue to deal with racial difference and novelty. We now need to move backwards in time both in our Spanish and American settings to see where Uranue's assumptions came from.

The basic template for the early modern Spanish medical tradition finds unparalleled expression in Examen de Ingenios, a sixteenth-century work of the peninsular savant and physician Juan Huarte de San Juan (c.1530-1588). According to Huarte, different conditions in different regions of the earth bring about different types, for "the habits of the soul follow the temperament of the body in its location ... and by experience one sees that [men from different regions] ... differ not only in the shape of the face and the arrangement of the body, but also in the virtues and vices of the soul. And all this comes from there being in each province a particular and different temperament" (Huarte II).¹³ Such plasticity of body and spirit has its limits, according to Huarte, and certain exceptional phenomena require special explanations. One of these is the tenacity with which temperamental traits are preserved within some human groups that have migrated and settled for generations in completely different geographical regions, and even after having become habituated to the new climates and temperatures. Huarte argues, for example, that Jews preserve that finesse of spirit and ingenuity (espíritu de fineza e ingenio) acquired during their crossing of Sinai, regardless of the latitudes and climates they inhabit.¹⁴ Huarte's explanation of such tenacity is that certain features depend on exceptional qualities that engrave themselves more deeply in the physical weaving of the human body and are passed on more robustly to further generations. He gives the example of a man who, having lost his body coloration due to a fright, not only retained the pallor for the rest of his life, but transmitted it to his descendants for several generations. The hereditary transmission of such accidental acquisition or loss of coloration accounts, in Huarte's theory, for the origin of differences in skin color among human groups. Sometimes the first mutation occurs in the action of the mother's imagination, while other times it results from Biblical curses (like the one that fell upon the descendants of Ham), and still other times it comes about owing to the unbalancing effects of climatic and meteorological influences.

For Huarte, as for most theoreticians of his time, an externally-induced temperamental transformation, arising by accident, is capable of taking root, more or less deeply, in the human body, and can mutate from being a personal oddity to be distributed symptomatically through lineages and groups. Such changes limit the plasticity of the temperament's reactions to further environmental influences. The deeper the roots, the longer (in terms of generations) it takes for a given accidental transformation to be eradicated when external influences do not favor it. Sometimes the rooting action is instantaneous, as a result of an immediate powerful action. Other times it is a matter of a repeated and continuous exposure to some given influence over several generations until the new trait becomes fully distributed within the

lineage. The number of generations it takes for a particular transformation to become a physical characteristic is proportional, so to speak, to the stubbornness with which it will remain fixed, even absent the original stimuli. In the words of Huarte de San Juan:

After two hundred years of being in Spain, having come from Egypt, the descendants of the gypsies have not lost their subtlety of mind (delicadeza de ingenio) nor the industrious abilities that their forefathers brought from Egypt, neither their dark color. Such is the strength of the human seed when it receives within it a well rooted quality. So in the same way as blacks communicate in Spain their color to their descendants (through the seed, not being in Ethiopia), the people of Israel, coming also from that region, can communicate to their descendants the sharpness of mind (agudeza de ingenio) without being in Egypt nor having meal of manna; because being dumb (necio) or wise is also an accident in man, like being black or white. (Huarte 2: 241)

The human body is thus inserted into a spatial continuum in which, on one hand, accidents such as humoral variations and unbalances, which occur due to the action of what physicians called the "non-naturals," can produce individual variations, and, on the other hand, such alterations can either remain in the lineage for several generations or be eradicated from it, according to the physiological depth of its rooting.¹⁵ This scheme, in which both skin color and moral attributes are grounded in accidental features, gives rise to a series of problems. One of them has to do with the effect of the humoral mixture that results from sexual reproduction by two individuals with widely different temperaments. Hippocratic and Galenic theories favored dual seminal views of generation, under which the features of the offspring result from the mixtures (and the struggle) between paternal and maternal elements. According to circumstances, one or the other might dominate, and the child might resemble one or the other parent. This view, of course, gives immense scope for contrary evidence and disagreement.

Another problem has to do with the bodily changes suffered generally by living organisms, and humans in particular, when transplanted to other geographical regions. Notwithstanding the tension between the belief in climate molding and total plasticity on one hand, and a belief in the relative stability of basic constitution on the other, migrations also open huge avenues of disagreement and contradictory evidence.

European consensus/American disensus

In his canonical longue durée survey of the dialectics of nature versus culture in Western thought, Clarence J. Glacken has shown that this Hippocratic epistemic landscape was the substrate for geographically deterministic explanations developed by important eighteenth-century savants, such as Montesquieu and Buffon, as well as Scottish enlightenment figures like Lord Kames, Lord Monboddo and James Dunbar. In 1781 the latter published a particularly clearly worded essay "Of the Hereditary Genius of Nations" that summarized the widely held eighteenth-century opinion that nations are constituted out of lineages in which hereditary temperamental features are reinforced generation after generation, allowing an observer to determine the primary geological groupings through peculiar national characteristics. Dunbar writes:

... A certain cast of genius and character adheres to every condition. Different degrees of refinement and civility characterise the various orders of citizens; and the dignity or meanness annexed to the sphere in which they move, is, by no violent transition of imagination, transferred to their immediate, and even to remote descendants, and regarded as appendages of posterity.

Thus families are formed, where men become destined, from birth alone, to occupy, in civil society, more or less exalted stations. Antiquity of family then implies a descent from a series of ancestors long separated from the crowd, and exalted to some eminence in the ranks of life. Now, it will not be denied, that, in the first generation, the resemblance of children to parents is often conspicuous in the features, both of body and mind. The one species of resemblance is sometimes conspicuous where the other is scarce discernible; and the other species is sometimes no less predominant where the former subsists in an inferior, or perhaps in no degree. These principles, though blended occasionally in their operations, seem to be distinct and independent. Various causes, to us unknown, may interrupt the law of resemblance in the outward form. Various causes, alike unknown, may interrupt the law of resemblance in the moral oeconomy. These connections and dependencies we attempt not to explore.

To vindicate the principle on which this judgment proceeds, let us review the condition of a family emerging from rudeness into the dignity of civil life. Let us suppose the founders constituted in a state of independence, and of decent affluence; graced with every circumstance that can command respect; improved by all the advantages of moral and of civil culture, and exalted to a mode of thinking, and of acting, superior to vulgar minds. Some traces of this spirit, we may affirm, without being charged with excessive refinement, are likely to adhere to their immediate progeny. But, how scanty or latent soever this inheritance at first, if the causes are not discontinued, the constitutional effect will be more conspicuous in the second generation. If the former impressions are not effaced, the third generation will have their constitution more strongly impregnated with the same elements; till at last, by happy alliances, and by preserving the line on one side long unbroken, there shall result an association of qualities, which, being consolidated into the constitution, form the character-istics of a race.¹⁶

This, I believe, safely represents a late eighteenth-century, self-serving European consensus that justified and reinforced—under a historical and natural scheme—the hierarchical view of human nature manifested in Camper's differential evaluation of racial groups. Unanue and other Creole physicians confronted the European consensus with strategies designed to upset or change it in order to situate their own position and interests. Since the late sixteenth century, Creole physicians had found ways to

adapt the wide and permissive Hippocratic landscape to their New World circumstances, turning around and exploiting its internal tensions to justify their own developing views of castas and geographical influence. A ductile and highly-tensed scheme provided them with a physiological/temperamental grammar for the body types in the peculiar American scene: mixtures, dilutions, resistances, bodily progress, throwbacks; the moral and behavioral disorders of (bodily and social) organization that came out of uncontrolled mixture and uncertain alliances; the unease of the social body as a result of the unease of the individual temperament.

In a notable essay, Jorge Cañizares-Esguerra chronicles the parallel reactions of several seventeenth-century Creole savants of the Spanish colonies to the Europeans' harsh characterizations of the bodily weakening and feminization allegedly induced by American climates on American-born whites, who were thus impeded from, among other things, rising up to the levels of the Europeans, in either the arts or the sciences. Cañizares detects an important hardening of Hippocratic theory by Creole physicians aimed at creating a definitive unbridgeable gap between the native Indian temperament and their basic European one ("New World"). The American rupture of the continuous gradient from superficial to deeply-rooted temperamental features came about as a Creole defensive measure designed to maintain a distance from the natives by denying a too-plastic and permissive Hippocratic description of their bodies. Cañizares's grander hypothesis is that these Creole reactions are the forerunners of the hardening (or crystallization) of the physical (categorical, taxonomic) separation between humans that came to develop later, in the European context, towards the essentialist, biological racism of the nineteenth century.

A complementary strategy that Creole physicians adopted was the inversion of European Hippocratic valuations of the effects of American nature on human bodies. Instead of a weakening, feminizing, degenerating effect, American climes (especially the mountains and the highlands), they argued, were an invigorating, healthy, positive influence. The well-constituted original Spanish temperament would therefore benefit from a few generations of Creole life in America. In humoral terms the basic Spanish temperament was choleric, and the bad side to that humoral crisis—its dryness was, in America, balanced by humidity, which favored the sanguine elements that give both health and power of imagination to the local Creoles. Such patriotic natural history (as Cañizares has called it) explains relatively well the interface between American Creoles and their European critics (especially French and English) particularly during the early period of colonization (sixteenth and early seventeenth centuries), but it neglects the problem that grew increasingly urgent as generations of Americans accumulated and diversified—how to understand and differentiate the diversifying complexity of human physical traits ("New World").

I will explore in a bit more detail some of the discussions in New Spain in order to ground our understanding of the Hippocratic idiom that became the code for the rationalization of the interactions between bodies and their surroundings, especially in relation to the three "original," geographically-designated body types (Indian, Spanish, African). I will then apply these findings to the mixtures and dilutions of the castas system.

Indian American hippocratic bodies

In one of the most influential early sixteenth-century (1535) accounts of the American scene, the Spanish *cronista* Gonzalo Fernández de Oviedo (1478–1557) described American natives as pusillanimous and inconstant and chose melancholia as the humor that could best account for their bodily and moral dispositions. As historian Franco Toriz has underlined, among the reasons for such a choice was that it accorded with "the behavior they displayed when ingesting inebriating substances, among which he includes tobacco, and also with their scandalous lust," both being typical of the melancholic template (71-72). Las Casas, tying to undo Oviedo's defamation of the Indians, sustained the thesis that among American Indians melancholia was not a vice, but a stable, balanced, natural temperament, "which helps us justify their tameness and demonstrates their learning abilities" (qtd. in Toriz 72). The distinction between natural (original) and non-natural (acquired) temperament is of course being played out here, as it was later, as a defensive device.

In his brilliant *Problemas y Secretos Maravillosos de las Indias* (1591), Juan de Cárdenas (a Spanish physician who emigrated to Mexico) notoriously revised the verdict, defending the notion that the Indian temperament is naturally phlegmatic (see Deuchler), "... hay flema natural y flema accidental: la natural es la del indio, la accidental la del español de estas tierras" (Cárdenas 58, 62). Cárdenas used this basic idea to explain away several differences between Spanish and Indian bodies regarding susceptibility to disease and the tendency of Spaniards to grow gray hair at a much earlier age than Indians. Another well-known author in New Spain, Enrico Martínez (of probable German origin, a polymath and an early printer) followed Cárdenas's lead when he wrote, in 1606, that in these lands the principal meteorological influence was Venus, with the Sun playing a secondary role.¹⁷ Venus promoted tempered phlegm, while the Sun promoted cholera and tempered blood.

... los naturales de este reino de complexión flemáticos sanguíneos predominando en ellos la flema, y esto se halla también por experiencia conformar con sus acciones y costumbres ordinarios, pues estos suelen seguir a la complexión. Ayuda a esto también ser el suelo de esta tierra muy húmedo ... (Martínez 176–77)

This proposal of a double complexion (or temperament) was Martínez's way of synthesizing the natural and acquired influences occurring in American lands in what he saw as a reasonable fashion. But, in a matter of a few years, he was severely criticized by another Spanish-born and trained physician, Diego de Cisneros, who wrote in his *Sitio, naturaleza y propiedades de la ciudad de México* (1618):

 \dots se reprenderá a Enrique Martín, acerca de lo que escribe de la naturaleza y complexiones de los indios de México, constituyéndolos por flemáticos, sanguíneos, y en ellos predomina la flema. \dots cuán dificultoso sea examinar las complexiones de los hombres en particular \dots Y si consideramos cual sea el innato temperamento con que uno nace y es formado, y el que adquiere por el discurso de la edad, conociendo su mucha variedad verá más difícil esta doctrina. (229–30)

Cisneros claims that because he is not a physician, Martínez is incapable of correctly applying Hippocratic notions to the American scene. The double temperament Martínez extravagantly attributes to Indians makes no sense, according to Cisneros, because what is really at stake is the predominance of certain qualities (humidity, dryness, heat, cold) that, when altered, in turn alter the humors themselves. The individuality of each life story and the temperamental changes it brings with it problematize group definitions, since each group is composed of singular temperamental trajectories according to their lifestyle, accidents, and diseases.

To investigate the natural temperament of Mexican Indians, Cisneros adds, one should examine coloration before everything else. Given the Indians' homogeneous, stable dark color, Cisneros continues, their temperament should be judged accordingly:

esta doctrina con la de Hipócrates, que nos enseña que la templanza del humor del cuerpo que predomina se conoce de su color, no flemáticos, sino melancólicos, habían de ser los indios y más, viendo la facilidad con que aprenden las artes y oficios de cualquier calidad, con tan gran perfección, cosas repugnantes a los flemáticos, de quien dijo Aristóteles que para ninguna cosas eran buenos: flojos, perezosos e ignorantes. Y nuestro Galeno, enseñando sus cualidades, dice: que son torpes, tardos al movimiento y perezosos, olvidadizos e insensatos, la color del cuerpo blanca, todo lo cual es repugnante a los indios, que son ligeros, curiosos, el color dorado tirante a pardisco, hábiles y de ingenio, como se ha visto y se ve en las artes que ejercitan, para las cuales es necesario ingenio y memoria ... (231-32)

This view of Mexican (and in general American) Indians as basically melancholic persisted throughout the eighteenth century, and was insisted upon by Alexander von Humboldt when he reviewed the literature (see Toriz 72). As can be seen by this brief exposition, whatever temperament was attributed to American natives, the moral desiderata relating to their penchants and behavior received the same, if not more, weight than physical, physiognomic, or health-related characteristics. The evaluation of what Indians were like (bright or stupid, good or evil, brave or cowardly) varied wildly, as has been shown by many authors. What patterns do exist depend primarily on the position of the observer.

Spanish hippocratic bodies

Los españoles que pasan a aquellas partes y están en ellas mucho tiempo, con la mutación del cielo y del temperamento de las regiones, aún no dejan de recibir alguna diferencia en la color y calidad de sus personas ; pero los que nacen dellos, que se llaman Creoles y en todo son tenidos y habidos por españoles, conocidamente salen ya diferenciados en la color y tamaño, porque todos son grandes y la color algo baja declinando a la disposición de la tierra ; de donde se toma argumento que en muchos años aunque los españoles no se hubiesen mezclado con los naturales, volverían a ser como son ellos ; y no solamente en

las calidades corporales se mudan, pero en las del ánimo suelen seguir las del cuerpo y mudando él se alteran también (Juan López de Velasco, qtd. in Bernand)

Thus wrote the royal cosmographer López de Velasco, expressing, in 1795, a common source of anxiety and confusion about migrants to America and their progeny. Deterministic views based on climate seemed to condemn them to drift inexorably, physically and morally, on a degenerative trajectory towards the same constitutional qualities as those of the natives, due to the powerful molding influence of the land. In a colonial setting this could be seen as a disparaging description even without a racist or white supremacist lens. To become like some other was to become foreign, and thus less worthy of trust, less authentically Spanish, and this lack of authenticity implied social and political exclusion before anything else. The Creole reactions Cañizares has so clearly delineated were powerfully motivated by the desire to avoid ostracism and exclusion from the sources of power and wealth (Cañizares, *How to Write*). Here I'm most interested in the role of Hippocratic theory; I will describe just two Mexican interventions, returning to the authors we have already met, as examples of wider cultural, scientific, and political battles.

When launching a defense against what he considered unwarranted assertions about Spanish bodily conditions in the Americas, Juan de Cárdenas decided to analyze in some detail the alterations of the Spanish innate temperament: "... los españoles nacidos en indias son todos a una mano sanguíneos en complexión, luego éstos son de más larga vida que los nacidos en España, los cuales, como muy doctamente nos enseña Avicenna, son coléricos ..." (248). He posits a change of the dominant humor due to meteorological and astrological influences, but characterizes them as far from damaging. America improves people's bodies, especially those of the (Spanish born) "chapetones."¹⁸ The choleric humor is replaced and gives rise to a new "warm and humid complexion, which the Arabs called sanguine, and does much to prolong life" (248). Concerning the much disparaged mental capacities of Spanish Americans, Cárdenas maintains that, far from damaging intelligence, the sanguine temperament improves it:

La sangre (que de su naturaleza es humor más templado más suave, amoroso, y benigno) ... freno de la cólera ... la concierta y compone ... hace al sentido común ... conserva asimismo el calor del cerebro como sustancia algo más corpulenta que la cólera, y junto con esto mediante su purpúreo alegre y rojo color, hace rojos los espíritus animales, que es un color que encierra forma alegre y regala las potencias del alma, así como los negros y tenebrosos espíritus la entristecen ... (250-52)

When they are born, Spanish American children are solely sanguine, says Cárdenas, while adults stabilize around a choleric/sanguine temperament, which can be seen in their appearance, as "they are usually white and chubby (except when they have mixture of the land)."¹⁹ Apart from their appearance, the behavior and moral disposition of the Creoles corresponds perfectly to Cárdenas's diagnosis of them as having a dual sanguine /choleric temperament. He goes on to explain the virtues and defects of this mixture:

Que los nacidos en esta tierra son sanguíneos, con mezcla de complexión colérica, no es mucho que siguiendo la viveza, presteza y delicadeza de tales humores, y sus propiedades sean prestos en aprender y percibir, prestos y vivos en entender, y obrar, agudos en trascender, tenaces en retener, porque todos estos efectos son propios de la complexión sanguínea colérica [...] (253)

Así como es propio y natural de la sangre y la cólera, hacer los efectos que ahora acabamos de declarar, así traen consigo otra falta no pequeña, y es que como son humores calientes, delgados y ágiles, que con facilidad se mueven, así causan mudanza y variedad en los hombres, haciéndolos poco perseverantes en su cosas ... (253)

Enrico Martínez also follows Cárdenas's assessment of the Spanish American dual bodily condition. He gives even more details about why there can be a mixed humoral complexion when a given natural temperament is exposed to different climate and temperament. Agreeing that the natural temperament of "la nación española" is choleric, he asks if such inborn trends remain or change for the Spaniards born and raised in Mexico:

La calidad que al hombre es propia por su natural complexión, tarde o nunca la pierde ... dice el filósofo que el cuerpo participa la calidad de la región donde nace ... los españoles que son nacidos y habitan en esta Nueva España participan del humor flemático sanguíneo, casi accidentalmente; más el humor colérico heredado por generación, aunque admite y recibe el humor sanguíneo por la semejanza que tiene con él en la calidad activa, resiste el humor flemático por serle contrario y repugnante [y ahí pierde su fuerza] de suerte que viene a quedar igual al humor sanguíneo, y así parece ser los españoles nacidos en esta tierra generalmente de complexión colérica sanguínea, participando casi igualmente entrambos humores. (177)

Martínez also agrees that those "recently arrived from Spain and other regions see their wits ("ingenios") enlivened and become prudent" (179). He is clearly aware of the polemical stage on which these statements are being delivered. The presence of the Indian bodies as the natural outcome of the temperament of these regions produced the thwarted example under which Creole savants labored. If these lands were so virtuous, and if they so tended to better the human temperament, why had they produced such an obviously inferior sort of human? If "by their fruits ye shall know them," then something is not right with the Creole evaluation of their land (Matt. 7.20). As Martínez puts it:

si las calidades que en este reino ocurren... fuesen acomodadas a producir buenos ingenios, los naturales de él los habían de tener muy aventajados, supuesto que ellos y sus antepasados han gozado siempre de ellas, de suerte que ellos y también los morenos habían de igualar en habilidad a los españoles, pues todos lo participan igualmente; mas que lo contrario de esto nos muestra la experiencia, pues vemos ser esta referida gente en habilidad muy inferior a los españoles, de donde se colige no tener este reino la propiedad que se le atribuye. (194–95)

The corollary to this reasoning is, of course, that a land that has produced such imperfect kinds, that has driven the natives to such abject physical and moral conditions, would be damaging rather than beneficial to the natural temperament of the Europeans. Martínez addresses this question by introducing the kind of distinction that Cañizares has described, arguing that the actions of the land (and here he refers specifically to New Spain) must be evaluated by comparing like with like, that is, the members of "the same nation," Indians with Indians, Africans with Africans, Europeans with Europeans. For the case of the American (Indian) nation, it was obvious to him that "la gente que en este reino [Nueva España] habita excede en habilidad a los de su misma nación que habitan en otras partes, deben ser las propiedades de él [de la región] acomodadas a producir buenos ingenios" (195). This demonstrated that not all the tropical regions were alike, and that in the highlands and other regions in Mexico the temperament of the natives had been clearly improved by the climate in order to produce the most well-disposed and capable Indians. Europeans experience a similar effect—their different natural temperament is likewise improved. This does not mean that Europeans can become exactly like Indians, nor the other way around. Their temperaments—basic, natural, hereditary, deeply rooted-remain irreconcilable.

As in the case of the Indian temperament, Cisneros (1618) goes after Martínez for his misuse of Hippocratic theory with European bodies. According to Cisneros, nothing in Mexican lands is so different from what is to be found in Spain as to propose such a drastic mutation of temperament. Both the nutrients and the climatic elements, though slightly different, are sufficiently similar to those of the peninsula as to have only minor effects. As a matter of fact, the best quality of the Mexican highlands is its temperance, its capacity to balance excesses:

Cualidades de los que nacen en México. La primera, ser hijos y nietos de verdaderos españoles, cuya complexión es colérica y de naturaleza animosos, atrevidos, agudos y en todas las ciencias y artes muy perfectos; de ánimo inquieto, amigos de su parecer, sufridores de trabajos y de robusta complexión y naturaleza cuyas acciones y cualidades mudando su nativo principio y origen y gozando de la templanza de esta región y ciudad, es necesario que teniendo la primera prerrogativa les ajuste la segunda, que atribuyen esto autores a los que nacen en tierras templadas, que es fuerza que las inclinaciones, ánimos e inclinaciones sea templadas. (Cisneros 233)

But it is a mistake, Cisneros believes, to compress the humoral description of a whole group of people into a singular or (even worse) a dual complexion. Different balances and imbalances occur in individuals of each human group:

Los españoles y castellanos que vienen a estos reinos, y especialmente a esta ciudad, varían en las complexiones y templanzas, así como los que nacen en ellos, porque ni todos son coléricos, melancólicos, flemáticos o sanguíneos, sino unos

de una complexión y otros de otra, las cuales se van mudando no sólo cuanto a las edades, sino también conforme a los alimentos \dots (233–34)

The land, according to Cisneros, modulates and slightly changes both Indians and Europeans during their lifetimes. But each group remains rooted in its original immanent temperament. It is only at the individual level that affections and circumstances of life, food, accidents, illness, and other influences can change the humoral balance. There remains, however, an unbridgeable distance between the temperamental base of one group and that of the other.

Thus, the notion of a natural or basic temperament provided a strategem for blocking the too easy transition from European to American bodies, while still keeping open the possibility that America offered a privileged nature with beneficial conditions for the European temperament. The scheme could thus fulfill its ideological mandate as long as it excluded the "mezcla de la tierra", that is, mestizaje. Aguirre Beltrán has clearly shown that by the early seventeenth century most Creole families in Mexico were actually *mestizo* families that had undergone some social and matrimonial "whitening" ("El sistema" 1944). The very early perception of the physical differences between the Indians and the Spanish, that is, between the conquistadores and the conquistados, did not put such a distance between the two as to consider the first generation of children born to mixed couples as particularly novel or deserving of a new name. The perception of difference, and the construction of a language of mélange and *mestizaje* to refer to the outcome of mixed coupling was something that occurred gradually. As Salas has shown, the word mestizo was brought in after several decades of mixed generations in order to tell mestizos apart, push them aside, and dispossess them of their inherited properties (from their conquistador parents). The tension of assimilating the white and the Indian bodies in a continuum that at one pole conceives of those bodies as being essentially alike, differing only in their humoral balances, and at the other pole conceives those bodies as being radically different, is played out, I believe, in the castas system, where there are clearly-marked routes to whitening and civilization, and clearly-marked routes to darkening and degeneration. The Indian/Spanish duality thus proved to be in many ways clearly controllable, even if in an unstable and contradictory way. But the incorporation of a third body made the balancing of the equation almost impossible.

I have yet to find in the context of the Spanish American colonies a developed analysis of what happens to the African complexion, presumably dominated by the dark humor of melancholia, when it gets transported to America. This third body that has to be incorporated to our American dis-concert seems to be radically under-theorized. Almost certainly, at least in the Spanish Americas, it did not engender the standing anxiety that the Indian and *mestizo* bodies seem to have created.²⁰ The African body is for many reasons the most polemical. As Renato Mazzolini has shown, the first radical opposition that set out the infamous modern history of racial classification of human groups was the black/white dichotomy, based on the creation of a temperamental otherness rooted in the fixity of skin color differences ("Skin Colour"). The first alien in front of which the European establishes the polarity of racial difference is the black African. The whites become whites because of this dichotomy. Such radical polarity would help explain, perhaps, some of the asymmetries we find in the whitening regimes in New Spain and elsewhere between

the treatment of the native Americans and that of the Africans, i.e., the special stigmatization of African ancestry. 21

The implantation in Spanish America of a color-based descriptive language that at once defines and produces a whole spectrum of human diversity was sparked, I believe, by the presence of the African body and the triangulation it generated within the context of multiple mixtures. Skin color and its multiple variations was a source of fascination from early on in the colonial period. In 1522 López de Gómara lyrically summarized the reactions he had read from spellbound European travelers:

Hay hombres blancos de muchas maneras de blancura, y bermejos de muchas maneras de bermejura, y negros de muchas maneras de negrura, y de blanco va a bermejo por descolorido y rubio, y a negro por cenizoso, moreno, loro y leonado; como nuestros indios, los cuales en general son todos como leonados o membrillos cochos, o tiriciados o castaños, y este color es por naturaleza, y no por la desnudez, como pensaban muchos, aunque algo les ayude para ello ir desnudos. (qtd. in Triana y Antonvenza 2: 644)

Final comments

The Europeans' hierarchical drive to slot their bodies in the top rank of the human scale went hand in hand with the striving for political dominance in the colonies, and with the Creoles' corresponding social struggle to be assimilated into the Europeanborn ruling class. The association of noble human qualities (beauty, will, intelligence, talent) with skin color facilitated the entrenchment of a whole set of exclusionary practices that aimed to maintain social control by various means of disenfranchising (from office, landownership, wealth, and other privileges) the increasing number of non-European mixed "generations" (mestizo and other castas) in the Colonies. Confronted with the reality of mixture in Spanish domains, "white rule" structured a social/political/bodily hierarchy in accordance with the canon of blood purity. As Ruth Hill has recently (2005) and vehemently reminded us, castas in viceregal Spanish America were not biological categories of race as it would come to be understood after the eighteenth century. They were, rather, a means of using physical and genealogical markers to construct a social hierarchy that rewarded Spanishness with whiteness. The troublesome existence of many important persons and families of mixed background born in the era immediately after the conquest was solved by establishing a prudent marriage sequence of purifying or whitening intent. This would help maintain the whiteness norm and bind the centrifugal trends of demographic and sexual drives. White European males, for instance, notwithstanding their origins, had a purity bonus they could exchange for status and wealth by marrying into well-to-do families of mixed blood.

The aims of this hierarchical, purifying/whitening scheme were progressively subverted by the reality of widespread *mestizaje*, especially with the increase in "generations" of mixed African and Indian descent, and their increasing social closeness to the demographically dominant mestizo population. Among the first acts of Mexico's first independent government were abolition of slavery and the eradication of every remnant of the castas scheme. The new racial myth of the mestizo that was to dominate the Mexican imaginary during the first two centuries of its independence was already on its way.

We have seen that the Hippocratic depictions of bodily (and moral) dependence on the balance of humors and their interactive commerce with nutritional, climatic and other influences, while suited to register the differences among human groups and lineages belonging to different geographical spaces, had to be modified in order to account both for the permanence of some peculiarities of a given group outside its original geographic context and the acquisition of new features. It turned out to be a particularly pliable scheme, with powerful tools for dealing with inconsistencies. For Creole nationalism, as we have seen, it functioned to defend at once the superiority of American conditions and the rule of elite white bodies. And this latter goal required a peculiar, and according to Cañizares, momentous, tightening of the Hippocratic scheme, reinforcing the notion of a highly stable and hereditary natural temperament sufficient to keep the different original races from dissolving into one another.

Once again it is mestizaje that presents a problem. The notion of temperament, based on humoral mixtures and balances, perfectly accords with the idea that when two temperamentally different bodies come together in a child via sexual (double seminal) generation, the outcome is an even mixture, with intermediate features. The notion of mixed blood captures the same impression. The whitening strategies to maintain or raise a family's standing can also be accounted for perfectly in the process of mixing as diluting. But what happens when the mixtures advance not towards purer whiteness, but towards a more complex "racial" ambiguity? At what point does the attribution of physiognomic and skin color diversity to quantifying dilutions or proportions of blood cease to make sense? An important division can be made, I believe, between those who kept framing the castas system, and mixture in general, in terms of a racial arithmetic of proportions of blood, and those who simply observed and described new human types and their qualities. In the former group one can situate most European authors, who tended to find proofs in the American scene for their ever increasing racialist theorizing, and some American Creoles like Unanue, who wanted to permanently stabilize the castas scheme (see Buffon; Kant; Blumenbach; De Quatrefages). In the second group one can find mostly liberal American Creoles who were fed up with more than two hundred years of looking at American realities through the distorting lenses of European theories. Insensibly the perception that the mixture was forging new human realities—realities resistant to the caste system's arithmetical reduction of American bodies as the sum of aliquotsgained footing among them until a threshold was reached. Then the old order of types was inverted, and then mestizophilia as the dominant social ideology was ready to spread its wings and take off (see Basave).

Notes

1 I wish to acknowledge the support of the following Institutions: CONACYT (proyecto H-37696), DGAPA-UNAM, Max Planck Institute for the History of Science (Berlin), Ministerio de Educación y Ciencia (Madrid), Universidad Autónoma de Madrid. The following persons have contributed considerably to the improvement of this work: Miruna Achim, Frida Gorbach, Laura Cházaro, Edna Suárez, Tobias Cheung, Laura Otis, Skúli Sigurdsson, and Roger Gathman. Previous versions of this paper have been presented in seminars at Posgrado en Filosofía de la Ciencia (Seminario de Historia de la Ciencia, UNAM), Max Planck Institute for the History of Science (Abteilung III), H&PS Department, University of Cambridge (UK). I have profited much from criticism and discussions in all three.

- 2 See Gerbi, *La naturaleza* and *La disputa*; O'Gorman; Hanke; Cañizares *How to Write* and "New World."
- 3 The notion of "ingenio" refers to mental capacities and dispositions which would include basic intelligence and sharpness of mind.
- 4 As has repeatedly been shown by authors like Gerbi, *La disputa*; Anderson; and Brading.
- 5 Peter, or Petrus Camper (May 11, 1722 in Leydon April 7, 1789 in The Hague) was a Dutch anatomist and a naturalist, as well as an artist and a patron of art. He also was a member of the state council of the Dutch Republic. One of the first to interest himself to comparative anatomy and paleontology, he also invented the measure of the "facial angle," aimed at measuring the intelligence of animals and human beings in an attempt to "scientifically" demostrate racist theories.
- 6 Which he identifies with the unruly, regressive *salta-atrás*.
- 7 There are comparable studies dealing with in the French and Portuguese colonies, from which we can extract some general attitudinal patterns towards racial mixing in the Americas. See for instance Benoist and Bonniol.
- 8 I use the term white only to refer to skin coloring, without the racial connotation it came to have in the nineteenth century. As I will make clear below, I agree with authors such as Konetzke, and, recently, Ruth Hill, who argue that superposing the modern notion of race on the Spanish American colonial discourse leads to conceptual confusion, and that the source of the hierarchical status allotted to color came from older social and religious values. I will for the same reason use quotation marks when using "race" and "racial" as anachronistic, but sometimes useful descriptive terms.
- 9 In a more drastic case, in Saint Domingue, Moreau de Saint-Méry (1797) describes an "infinite ligne de couleur" that prevents black tainted families from ever diluting the stain and becoming white (see Bonniol and Benoist).
- 10 Although important progress in that direction can be found in recent work by Vinson III and Hill.
- 11 Policing illegal activities, tax collecting, and army recruiting were among the main purposes. Originally, the native *indios* lived under a very different political and tax regime and were entitled to their territories and relative autonomy (in their *Repúblicas de Indios*), and had to pay collective tributes. Creoles and *mestizos* were free men (within the "ruly" side) and had increasingly diffuse boundaries, of which skin color was only one element. Freed African slaves and their mixed progeny with both Indians and Spaniards, who could, according to the social and regional conditions, be well or badly integrated to mainstream economical activities (as artisans, servants, laborers, etc.), constituted the most unruly sector.
- 12 See also Hill, ch. 5, and Sicroff.
- 13 From the 1977 edition of Huarte (IV in the 1594 edition). All translations from Spanish are by the author, unless otherwise stated.

- 14 Jews figure largely in this literature as an example of how complexion varies with the regions, given that they have changed and adapted themselves to many places without interbreeding with local groups, due to their endogamic practices.
- 15 For the notion of the "non-naturals" see López-Beltrán, 2002. This rootedness, or tenacity of the accidental, its capacity to use the seed as vehicle to remain in a lineage and project itself into the future, is the germ of the modern concept of heredity, as I have argued elsewhere in several places. See López-Beltrán, *El* sesgo, ch. 3.
- 16 Quoted from http://socserv.mcmaster.ca/econ/ugcm/3113/dunbar/dunbar13.txt
- 17 The name is found with many variations and spellings, indicating a non-Spanish origin; possibly he was identical to one Heinrich Martín, born in Hamburg c. 1555.
- 18 Chapetones and gachupines are the two most widespread Iberoamerican colloquialisms for peninsular Spaniards.
- 19 "como no tengan mezcla de la tierra": this sentence is enormously telling, as having red cheeks (chapetas) came to be a sign of blood purity, just as darker skin or absence of *chapetas* became a sign of mixture. Hence the nickname "chapetones." The fact can be clearly observed in the reddening one sees of the cheeks of most unmixed Spaniards in the casta paintings.
- 20 A pattern that changes in both the English and the French colonies in the Caribbean and in Portugese Brazil, where mixtures in which the African presence was central produced similar racial schemes.
- 21 Particularly in Haiti and Santo Domingo. See Bonniol and Benoist 1994.

Works cited

- Aguirre Beltrán, Gonzalo. Obra Antropológica II. La población negra de México. Estudio Etnohistórico. México: Universidad Veracruzana, Instituto Nacional Indigenista, Gobierno del Estado de Veracruz, Fondo de Cultura Económica, 1989.
 - . "El sistema de castas en España y su traslado a Nueva España." Medicina novohispana Siglo XVI. Vol. 2. Ed. Aguirre Beltrán and Roberto Gonzalo y Moreno de los Arcos. México: Academia Nacional de Medicina, UNAM, 1990.
- Anderson, Benedict. Imagined Communities: Reflections on the Origins and Spread of Nationalism. 2nd ed. London: Verso, 1991.
- Bartra, Roger. "Melancolía y Ciencia en el Siglo de Oro." Ciencias (México) Jul.-Dec. 1999.
- Bernand, Carmen. "Les noirs dans les mondes iberoamérciains." Nuevo Mundo Mundos Nuevos 3 (2003).
- ——. "De lo étnico a lo popular: circulaciones, mezlas, rupturas." Nuevo Mundo, Mundos Nuevos 6 (2006), available online at: http://nuevomundo.revues.org/ document1318.html.
- Bradburne, James M., ed. Blood, Art, Power, Politics and Pathology. Munich: Prestel, 2002.
- Brading, David A. The First America: The Spanish Monarchy, Creole Patriots and the Liberal State. Cambridge: Cambridge UP, 1991.
- Bonniol, Jean-Luc, and Jean Benoist. "Hérédités plurielles, représentations populaires et conceptions savantes du métissage." *Penser l'Hérédité*. Ed. Bonniol and Pascal Gleize. Spec. issue of *Ethnologie Francaise* 24.1 (1994): 58–69.

Buffon, Georges Luis Leclerc, Comte de. Del hombre: escritos antropológicos. Trans. Angelina Martín del Campo. México: Fondo de Cultura Económica, 1986.

- Cañizares-Esguerra, Jorge *How to Write the History of the New World*. Stanford, Stanford UP, 2001.
- -----. "New World, New Stars." American Historical Review 104.1 (1999): 33-68.
- Cárdenas, Juan de. Problemas y Secretos Maravillosos de las Indias. 1591. México: Academia Nacional de Medicina, 1980.
- Carrera, Magali M. Imagining Identity in New Spain. Austin: U of Texas P, 2003.
 - "Locating race in late colonial Mexico." Art Journal (1998. http://www. highbeam.com/library/doc.
- Cisneros, Diego de. Sitio, naturaleza y propiedades de la Ciudad de México. 1618. México: Novum, 1989.
- De Quatrefages, Armand. "The Formation of the Mixed Human Race." Anthropological Review 7.24 (1869): 22-40.
- Deuchler, W. Juan de Cárdenas. Bern: P. Haupt 1930.
- Diggs, Irene. "Color in Colonial Spanizh America." The Journal of Negro History. 38.4 (1953).
- Dunbar, James. "Of the Hereditary Genius of Nations." Essays on the History of Mankind in the Rude and Cultivated Ages. Edinburgh 1781.

Foster, George M. "On the Origin of Humoral Medicine in Latin America." *Medical* Anthropology Quarterly, ns 1.4 (1987): 355-393.

- Friedemann, Nina. "Castas, mestizaje y blanqueamiento." La saga del Negro. Bogotá: Instituto de Genética Humana, Universidad Javeriana, 1993.
- Gerbi, Antonello. La disputa del Nuevo Mundo. Historia de una polémica, 1750-1900. Trans.
 A. Alatorre. 2nd ed. México: Fondo de Cultura Económica, 1982.
- . La naturaleza de las Indias Nuevas. Trans. A. Alatorre. México: Fondo de Cultura Económica, 1992.

Glacken. Clarence, J. Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century. Berkeley: U of California P, 1962.

- Hanke, Lewis. El prejuicio racial en el Nuevo Mundo. Trans. Marina Orellana. México: SEP, 1974.
- Hill, Ruth. Hierarchy, Commerce, and Fraud in Bourbon Spanish America: A Postal Inspector's Exposé. Nashville: Vanderbilt UP, 2005.
- The Holy Bible. King James Version.
- Huarte de San Juan, Juan. Examen de ingenios para las ciencias. Madrid: Editora Nacional, 1977.
- Humboldt, Alexander. Political Essay on the Kingdom of the New Spain. Trans. John Black. London, 1811.
- Katzew, Ilona. Casta Painting. Singapore, Yale UP, 2004.
- Konetzke, Richard. "Los mestizos en la legislación colonial." *Revista de Estudios Políticos* 112 (Madrid, 1960): 113-129.
- Kugler, Georg. "The Predestination of our Hapsburg Dynasty." Bradburne 121-135.
- Martínez, Henrico. Reportorio de los tiempos e historia natural de Nueva España. 1606. México: Patria, 1991.
- Mazzolini, Renato G. "'Las Castas': Inter-Racial Crossing and Social Structure (1770– 1835)." *Heredity Produced*: At the Crossroad of Biology, Politics and Culture, 1500 to 1870. Ed. S. Müller-Wille and H.J. Rheinberger. Cambridge: MIT Press, 2007.

 —. "Skin Colour and the origin of Racial Difference." Ms. presented at seminar in MPIWG, 2003.

Moreno Navarro, Isidoro. "Un aspecto del mestizaje americano: el problema de la terminología." *Revista española de antropología americana* 4 (1969): 201–18. www.ucm.es.

Laín Entralgo, Pedro. La medicina hipocrática. Madrid: Alianza, 1987.

- López Beltrán, Carlos. "Les Haereditarii Morbi au debut de l'Epoque Moderne." L'Hérédité a la fin du Moyen Age. Ed. M. van der Lugt and Ch. Miramon. Paris: École des Hautes Études en Sciences Sociales, Micrologus Library. Forthcoming.
 - . "Natural Things and Non-natural Things: The Boundaries of the Hereditary in the Eighteenth Century." A Cultural History of Heredity I: Seventeenth and Eighteenth Centuries, Preprint ser. 222, pp. 67–88. Berlin: Max Planck Institute for History of Science, 2002. 67–88.
 - . El sesgo hereditario, Ámbitos históricos del concepto de herencia biológica. México: Colección Estudios sobre la Ciencia, Coordinación de Humanidades, UNAM, 2004
- Lugt, Maaike van der. "Les Maladies Héréditaires dans la Pensée Scolastique." *Hérédité a la fin du Moyen Age.* Ed. Lugt and Ch. Miramon. Paris: École des Hautes Études en Sciences Sociales, Micrologus Library. Forthcoming.
- O'Gorman, Edmundo. La invención de América. México: Fondo de Cultura Económica, 1999.
- Salas, Alberto M. Crónica florida del mestizaje de las indias. Buenos Aires: Losada, 1960.
- Sicroff, Albert A. Los estatutos de Pureza de Sangre: Controversias en los siglos XV y XVII. Madrid: Taurus, 1985
- Stolcke, Verena. Racismo y sexualidad en la Cuba colonial. Madrid, Alianza, 1992.
- Trabulse, Elías. Historia de la Ciencia en México. México: Fondo de Cultura Económica, 2005.
- Triana y Antorveza, Humberto. Léxico Documentado para la Historia del Negro en América: siglos XV-XIX. Vols. 2-6. Bogotá: Instituto Caro y Cuervo, 2002.
- Ulloa, Antonio. Viaje a la América Meridional. Vols. 1-2. Madrid: Dastin, 2002.
- Unanue, Hipólito. Observaciones sobre el Clima de Lima y sus Influencias en los seres organizados. 2nd ed. Madrid: De Sancha, 1815.
- Vinson III, Ben, and Bobby Vaughn. Afroméxico. México: Fondo de Cultura Económica, 2004.
- Villarroel, Hipólito. Enfermedades políticas que padece la capital de esta Nueva España. México: Porrúa, 1999.
- Zúñiga, Jean-Paul. "La voix du sang. Du métis à l'idèe de métissage en Amérique espagnole." *Anales HSS* 54.2 (1999): 425–52.