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THE USE OF EMIC RACIAL CATEGORIES AS A TOOL FOR ENUMERATING BRAZILIAN DEMOGRAPHIC PROFILES: A RE-ANALYSIS OF HARRIS' 1970 STUDY

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RESUMO - A historia política, economica e demográfica do Brasil criou um sistema de identificação racial suis generis distinto daquele utilizado nos EUA. Este sistema de classificação não limita a identidade racial a castas como comumente é encontrado em outros países, mas apresentando nuances. A presente situação brasileira e informações atualizadas no campo científico tem encorajado pesquisas no sentido de reavaliar a correspondência entre as categorias raciais atualmente empregadas pelo IBGE e o sistema classificatório do senso comum brasileiro (visão êmica). Pesquisas realizadas em Rio de Contas (Bahia) demonstram que a omissão do termo moreno no recensiamento daquela comunidade tende a inflacionar/aumentar os termos branco, preto e pardo. Pesquisadores e ativistas políticos salientam que há maneiras de superar este problema. Alguns estudiosos sugerem que os termos em si se adequam se forem utilizadas de maneira dicotomizado. Enquanto isso, outros pesquisadores indicam que o censiamento atualmente empregado pelo IBGE identifica indivíduos brasileiros conforme um sistema pre-determinado e padronizado (visão etico).

O presente trabalho discute as implicações destas abordagens e procuramos aplicar novas técnicas para reavaliar o trabalho desenvolvido por Harris (1970) em seu estudo da classificação racial brasileira. Demonstramos que: 1) a utilidade e aplicabilidade destas técnicas em

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futuras pesquisas pode esclarecer o significado referencial dos termos raciais comumente empregados pela população brasileira; e 2) criticamos a noção do Harris que considera este sistema de classificação êmico inerente ambíguo embora que o mesmo não exiba uma ordem necessariamente estável. Portanto esta pesquisa abre um caminho novo para examinar as categorias raciais atualmente empregados além de considerar a possibilidade de empregar termos êmicos no recensiamento do IBGE.

PALAVRAS-CHAVE: Identidade racial/étnica, Censiamento brasileiro, Etnosemântica, Análise de consenso.

ABSTRACT - The demographic and political economic history of Brazil encouraged the formation of a non-caste emic system of color-raceidentity. Current political and scientific issues are forcing researchers to reassess the IBGE's color-race categories. At this point, the IBGE can either refrain from changing the terms and develop ways to minimize biases caused by problematic color-race terms or look for alternative emic and/or etic procedures and categories to use for the new census. We discuss the limitations of possible approaches and reanalyze Harris' 1970 study of color-race classification to show that new cross-culturally valid techniques can help identify the principles underlying the use of color-race terms in Brazil. We suspect that future research will show that the cognitive domain is more orderly than Harris originally estimated, but less orderly than Halsenbalg, Silva,and Wood argue. The research may identify more adequate IBGE census schedules.

KEY WORDS: Racial identity, Brazil Census, Cognitive anthropology, Consensus analysis.

INTRODUCTION

The nature of Brazilian color-race identity remains an unsolved and dynamic puzzle (see Harris 1964; Harris et al. 1993;Sanjek 1971; Fontaine 1985; Barcelos et al. 1991; Kottak 1992;Wood & Lovell

1992). Despite claims to the contrary, Brazil is not an egalitarian racial democracy. Its discriminatory system of color-race identity is unlike those of the United States, the Andes, and the Caribbean. Brazilians do not (yet) employ a racial caste system based upon the principle of hypodescent; full siblings may have vastly different racial identities. Brazilians use physical and socio-economic cues to ascribe color-race identity. People can and do, to a limited extent, change their color-race identity depending on changes in their income and social standing (Kottak 1992). These cultural practices make it tremendously difficult to accurately enumerate racial identity.

Origin of Brazil's Non-Caste System of Color-Race Identity

Competing theories exist to explain why Brazil did not develop a rigid caste-bound system of racial identity as the one encountered in the United States. Freyre (1964) explanation was that the national character of the colonial Portuguese made them more tolerant and accepting of African slaves than their English and North American counterparts. The Portuguese attitudes promoted miscengation and the creation of many races which lived harmoniously in Brazil. The English attitudes fostered segregation and mutual distrust.

Harris (1964, 1968) provides a different explanation. He argues that the relationship between the ecological and demographic settings in Brazil and North America fostered different demands for labor in the Brazilian sugar plantations and interior cattle ranches, and in the case of North America, tobacco and cotton plantations. Brazilian slaves outnumbered their colonial masters by as much as 4 to 1. The small class of Brazilian colonialists, composed mostly of men, produced offspring with African slaves. The offspring of "mixed" marriages were often sent to occupy and work in the hinterlands as cattle ranchers, etc. By the time the Brazilian slave trade was

abolished, the country was populated by millions of individuals of mixed ancestry. These conditions fostered the development of a system of racial identity that did not directly depend on descent. In contrast, by 1820, North American whites outnumbered slaves by a ratio of 3 to 1. Since the North American frontier was in the process of being settled by European immigrants while the demand for labor in the plantations continued to be high, slaves and their descendants were confined to these locations and prohibited from marrying whites. These conditions created a system of hypodescent (e.g. the one-drop rule) in which the racial identity of offspring is ascribed to the lowest caste of its parents (Harris 1964). For example, whites who bear offspring with non-whites are penalized by having their children ascribed to a non-white caste. Similarly, a person with one Black great-grandparent is legally considered as black.[3]

Why Re-examine the Color-Race Categories?

Recently, in Brazil, the definition and classification of racial and ethnic identity are attracting more attention. The Afro-Brazilian movement has called for a greater awareness among Brazilians to duly recognize their cultural-historical roots. The leaders of the Afro-Brazilian movement object to the current common classification scheme which, they claim, dilutes and obscures recognition of African ancestry. They also urge the adoption of a different method and classification system for describing and assigning racial identity in the

[3] The exception to this, of course, is the situation of the North American Amerindian population. In this instance, anyone who wishes to become registered as a Native American in the United States would have to prove that at least one Fourth of their ancestry is of Amerindian origin, not to mention that the tribe of origin would have to be recognized by the U.S. government. Historical disputes over land with the U.S. government gave rise to a series of laws which require that any indigenous individual aspiring to claim landrights, duly entitled to them as a Native American, would have to provide evidence that at least one Fourth of their blood is of Amerindian stock (Jaimes 1994: 48-49).

Instituto Brasileiro de Geografia e Estatística (IBGE) census. They believe the revisions would promote social and political power, recognition and improved self-esteem among Afro-Brazilians (Folha de São Paulo 1995).

Similarly there are problems associated with definitions of Indianess in Brazil. For example, many Brazilian indigenous groups that come into contact with that country's national society are quickly embraced by the term "isolated Indian", a vague catch-all category employed by Brazil's Indian Service (FUNAI) to describe groups that eschew contact with outsiders and lie on the periphery of the Brazilian frontier. After they are brought into contact and subsumed under the category of state "ward", they eventually are engaged in a FUNAI program whose main purpose is to "integrate" indigenes into Brazilian national society. Once these groups are considered to no longer exhibit "Indian" characteristics, which are arbitrarily defined, the status of Indian will be lifted. At that point the state abandons them and they are left to fend for themselves (Gallois 1992; Balée 1994). For this reason, some Amerindian groups which were formerly administered by Brazil's Indian Service are rallying for recognition of their distinct ethnic status such that they could be counted in the census and enjoy rights that, by law, would accrue to them as indigenous citizens.

Social scientists, too, are debating the relative validity and reliability of color-race classification systems used in census and survey instruments. At the heart of the debate is a long-standing disagreement concerning the epistemological basis of the color-race terms as well as their potential effect on statistical analyses and policy.

Emics and Etics

Researchers can enumerate a respondent's color-race identity using either emic and etic procedures and categories, or a mixture of

the two. Emic procedures require that respondents use the self-selected terms they consider culturally appropriate to identify their color-race category. Etic procedures require trained observers to determine color-race identity according to criteria whose validity does not depend on the respondents' cultural assessments. Researchers may define and enumerate color-race categories with reference to predetermined clusters of genetic alleles or phenotypic characteristics and any social markers they consider to be theoretically relevant. Usually, researchers mix emic and etic procedures; respondents self-classify by choosing one color-race term from a predetermined list. Researchers sometimes aggregate forced-choice responses into glosses and/or correlate self-reports and socio-economic status (SES) variables.

The IBGE Census and PNAD Color-Race Categories

The color-race categories in the IBGE and 1976 Pesquisa Nacional por Amostra de Domicílios (PNAD) embody a mixture of emic and etic procedures, where respondents chose from a reduced list of terms. The IBGE has been indecisive about what, if any, color-race terms should be used in the national census. In the 1980 and 1990 censuses, the IBGE encouraged respondents to identify themselves as either *branca, preta, parda*, or *amarela*. In the 1980 census, 54% of the respondents identified themselves as *branca*, 38% as *parda*, and 5.9% as *preta*. The 1990 census, 55.3% of the Brazilians said they were *branca*, another 39.3% claimed to be *parda*, while 4.9% responded *preta*. (For the purposes of this study, we will disregard the term *amarela* since its status has not been heavily contested and the IBGE 1980 and 1990 censuses suggest it represents between 0.7 and 0.5% of the population).

Both the 1980 and 1990 census schedules are different from the 1950 census which used the term *mulata* instead of *parda*. The IBGE

based its decision to include the term *parda* upon an analysis of the 1976 Pesquisa Nacional por Amostra de Domicílios (PNAD). PNAD researchers asked a subsample of respondents to state their color-race identity and then asked them to self-classify according to four forced-choice options: *branca, preta, parda*, and *amarela*. According to Silva (1988:147), under the free self-identification procedure, 43.6% of the respondents identified themselves as *branca*, 35.5% said they were *morena*, 7.0% responded they were *parda*, and 4.6% claimed to be *preta*. The enumeration of color-race categories changed under the forced-choice procedure. The proportion of *brancas* rose to 56.4%, *pardas* increased to 31.3%, and *pretas* grew to 8.4% of the subsample. Of those who claimed to be *morena*, 62.9% re-identified as *parda*, while another 24.5% chose *branca*. Of the free choice *pretas*, 1.8% re-identified as *branca*, 8.0% chose *parda*, while 89.5% remained *preta*.

Even though the forced-choice options produced a significant increase in the number of *brancas, pardas*, and to a lesser extent, *pretas*, IBGE researchers marked the "mixed" color-race category with the culturally non-salient term parda rather than the highly salient term *morena*. According to Silva, they did so because they considered *morena* to be a "completely ambiguous" term that could refer to either skin or hair color (Silva 1988: 146-148).

We disagree. While it is true that *morena* refers to a wider variety of etic phenotypic and socioeconomic characteristics than any other salient term, it is not completely ambiguous. There is no evidence that hair type or color is a more important diagnostic feature for *morena* than for *branca* or *preta*. When Harris (1968) and Sanjek (1971) asked respondents to classify black and white portraits into color-race categories, the informants readily applied *morena* in a non-random fashion. And, as we will see later in this paper, relatively permeable boundaries of the referential meaning of morena may exist.

Options and Limitations

Brazilianists agree that the terms branca, parda, preta, and amarela do not perfectly capture the Brazilian emic system of color-race identity (Skidmore 1985; Hasenbalg & Silva 1988; Lovell 1993; Silva 1985; Telles 1992; Wood 1990; Wood & Lovell 1992). Scientists and politicians have suggested several ways of minimizing the errors caused by the relative mismatch between the census reports and unprompted self-reports. We can either keep the existing census terms and develop analytical methods to minimize the degree of discrepancy in statistical analyses or we can change the census terms according to emic or etic principles (Harris *et al.* 1994, 1995; Byrne *et al.* 1995).

Keeping the Terms: Dichotomize IBGE and PNAD Terms

Many Brazilianists feel that, although biased, the IBGE census and PNAD data are accurate and robust enough to use if they are aggregated into trichotomous or dichotomous categories. The IBGE itself had to combine the *preta* category with the *parda* group because there were not enough people termed pretas in several age cohorts to conduct their statistical analyses of educational attainment (IBGE 1990: 35). Telles (1992) used trichotomous categories in his study of segregation because he felt they were more consistent with Brazil's emic system than dichotomies. Other scholars reached the opposite conclusion. Silva (1985, 1988) employs dichotomous black/non-black categories. He argues that *mulata* and *preta* can be lumped under the term black because his research with the PNAD data base indicates that *mulatas* and *pretas* seem to have statistically similar socio-demographic patterns. Conversely, Hasenbalg (1985, 1988) believes that an etic white/non-white dichotomy is appropriate (Hasenbalg 1988:159). Wood & Lovell (1992: 722) base their decision to use

dichotomous categories on their own statistical analyses of self-reported racial terms than the IBGE has used over successive censuses. They believe that the use of *mulata*, *morena* or *parda* on census schedules affects the estimates of various kinds of *não-brancas* (non-whites) but have little effect on the number of *brancas*. Therefore, they conclude, it is efficacious and valid to divide the data into etic white and non-white categories.

Other researchers are far less confident about the emic validity of the IBGE and PNAD census terms or the efficacy of dichotomizing census categories. Harris et al (1993, 1995) found that using *parda* rather than a more salient term such as *morena* in forced choice schedules artificially doubles the number of self-reporting *brancas* and *pretas* in Rio de Contas. Their more recent analyses demonstrated that the misclassifications caused by the census schedule obscures measurable income and educational differences between color-race categories. Dichotomomizing the categories did not clarify the distribution (Byrne *et al.* 1995).They concluded that the emic/etic IBGE and PNAD color-race categories might also distort population profiles throughout Brazil, bias statistical analyses, warp theoretical explanations,and mislead policy makers (Harris *et al.* 1994, 1995; Byrne *et al.*1995). They suggest that the census be revised.

Etic attempts

If existing census and survey categories and analytical techniques are questionable, then perhaps the census categories should be changed. Once again, these new categories may be founded on etic, emic, or a mixture of emic and etic procedures. Each option has advantages and limitations.

Scholars, political parties, and nation states have attempted to craft etic definitions of race based solely on genetic and phenotypic

factors for several centuries. In a recent attempt, Sarich (1995) defines races as "populations, or groups of populations, within a species, that are separated geograhically from other such populations, and distinguishable from them on the basis of heritable features." (ibid.: 86). He believes that races form fuzzy sets that grade into one another. The number of races around the world depends on the desired level of "sorting accuracy with respect to individuals" (ibid). The rate of classification error, in turn, depends on the geographical and hereditary distance between individuals and populations to be sorted; errors decrease as one includes fewer cases that come from areas located farther apart from each other. The amount of human variation which makes it possible to sort individuals and populations into discernable races depends on, Sarich says, "what you are looking at (ibid)."

Efforts to create meaningful etic categories usually begin to falter at this point. To create stable racial categories, one must identify theoretically relevant genetic, phenotypic, economic,political, and/or religious characteristics that consistently accompany each other. Nobody has ever been able to determine what package of adaptive or non-adaptive individual traits hang together to adequately formulate the criteria to create these stable etic classes. Left without these packages, Sarich, like everybody else,ends up using emic classification schemes to operationalize his conceptual etic definitions. Sarich himself uses the U.S. emic racial caste-system to operationalize his conceptual etic definition of race.

But Sarich is not the only one who wishes to substitute U.S.categories for etic schema. Some prominent members of the Afro-Brazilian movement and other interest groups have also suggested that trained census takers classify individuals according to a similar schema. Yet they have not identified either the criteria or the categories the census takers would use.

The use of emic categories as etic constructs carries potential hazards. The history of biological anthropology demonstrates repeatedly that confounding emic categories with etic categories is part and parcel of racist sentiments which provide pseudo-scientific justifications for differences in behavior and social achievement. Sarich himself claims that the North American one-drop rule (in which anybody with a hint of Sub-Saharan African features or ancestry is "Black" while Whites have only European features and ancestry) is biologically valid. He then goes on to claim that there are sound evolutionary reasons for why North American Blacks are seemingly better basketball players than Whites, Latinos, or Asians and, similarly, why Whites and Asians achieve higher in intelligence tests than Latinos and Blacks. He concludes that the United States should abandon affirmative action policies. Sarich's tautologous definition of race and his crippled biological theories nontheless contributed to groups who successfully abolished affirmative action admissions policies in Californian Universities.

On the other hand, the strict application of emic categories can be self-defeating. Brazil is a perfect example. Researchers throughout Brazil have elicited several hundred color-race categories that are used in unstable, often contradictory ways. It is impossible to do any sort of meaningful socio-economic statistical analyses with such a diffuse set of terms. This is why IBGE census takers are compelled to construct a short census-schedule.

It should be clear by now that neither the strategies to overcome the relative inconsistency of the IBGE census by dichotomizing its categories, nor attempts to impose etic classification, are likely to overcome the inherent problems in the study of Brazilian racial demography and relations.

Emics and the reappraisal of Harris' 1970 study

We argue that the best way to resolve the debate over color-race identity and the IBGE census categories is to use new techniques developed by cognitive anthropologists to assess the referential and abstract meanings of emic color-race terms.Cognitive anthropology has fortified its data collection and analysis techniques. Multiple Dimensional Scaling, Multiple Regression QAP, and Consensus Analysis can help uncover the emic relationship between the physical and social features that Brazilians use to identify color-races. Since new studies using these techniques have not been conducted, we reanalyzed Harris' research (1970) to demonstrate the effectiveness of some of the data analysis techniques. Harris' data were not collected using contemporary methods, therefore, we wish to make it clear from the outset that the results are only suggestive. New studies must be conducted throughout Brazil to determine the referential and abstract meanings of color-race terms. These studies may identify potential IBGE census categories that would be more consistent with emic color-race profiles.

A New Look at Old Data

In the late 1960's, Harris was involved in an anthropological debate about the relative orderliness of cultural systems. Many cognitive anthropologists thought cognitive systems were founded on clear-cut binary distinctions between items within domains. Their job was to identify the underlying principles and distinctions. Harris (1970) focused on the Brazilian emic system of color-race identity to demonstrate that emic ambiguity was not necessarily an aberrant characteristic of cognitive domains. It could be a fundamental feature. He wrote that in Brazil:

> ego lacks a single socio-centric racial identity; the repertory of racial terms varies widely from one person to another (holding region and community constant); the referential meaning of a given term varies widely (i.e., the occasions in which one term rather than another will be used); and the abstract meaning of a given term (i.e., its elicited contrasts with respect to other terms) also varies over a broad range even within a single community.

He used contemporary state-of-the-art techniques to measure informant consensus and the degree of referential ambiguity of color-race terms. Concentrating on the emic use of physical cues which Brazilian informants claimed to be the most important in ascribing color-race identity, he conducted a study using ordinal scales for skin tone, hair quality, and nose and lip form. Skin tone could be light, medium, and dark. Hair quality was straight,wavy, and kinky. Lips were either thin or thick. Noses were narrow or wide. All of these possible phenotypic combinations were represented in a deck of 72 black-and-white water-color portraits depicting both male and female faces.

Harris interviewed one hundred people in Northeastern, Central and Southeastern Brazil. He presented the portraits in a single randomized order and asked respondents to name each portrait according to its "qualidade", "tipo", or as a last resort, "raça". Respondents also reported their place of birth, age, sex, marital status, occupation, and years of education. He tried to collect information about the color-race of the informant but quit half way through the experiment because he suspected the wide array of terms people were using to identify themselves could not be verified.

The respondents used a total of 491 terms to name the portraits. They used an average of 9 terms, with a range from 2 to 70. The most frequently used terms were "applied to almost all of the portraits" (Harris 1970: 2) At least 20 different lexical combinations were used

for each portrait. Most of the primary lexemes were modified by auxiliary terms (i.e. *mulato escuro, mulato claro*, etc.). The terms *branco* and *preto* tended to contrast. *Claro* and *alvo* both contrasted with *preto* but were used less frequently than *branco*. *Cabo verde*, *alvo*, and *sarará* were used in a rough complementary fashion.

Harris was unable to relate *mulato, moreno*, and *moreno claro* to *branco* and *preto*. Therefore, he tentatively concluded that:

> If there is an orderly principle by which *morenos* or *mulatos* are distinguished from *brancos, pretos, sararas, alvos, claros*, and *cabo verdes*, it is an extremely complex one. At the moment it seems as if Brazilians will call almost any combination of facial features by the terms *moreno* or *mulato* with a high but unpatterned frequency (Harris 1970:12).

Knowing he lacked the adequate methods, Harris insisted that,"clarification of the nature of the ambiguity in the Brazilian 'racial' calculus awaits the development of cross-culturally valid methods of cognitive analysis (Harris 1970:2)". As mentioned above, that time has come.

The Data

We took the data from Harris' study and used the information collected from the 88 respondents who named both male and female sets of portraits.[4] The sample consists of 50 men and 38 women. Forty-seven respondents had less than five years of education; 20 attended school for 6 to 11 years; and 21 completed more than 12 years. Respondents were from Alagoas (30), Bahia (15), Ceará

[4] This is a reduction from the original data set obtained by Harris in 1970, which lists information elicited from 100 informants. The decision to use information from 88 informants was because some data items were incomplete for 12 of the original 100 informants.

(8),Pernambuco (7), Rio de Janeiro (6), São Paulo (13), and elsewhere (9).

We standardized responses by equating prepositions as well as plural and singular lexemes (e.g. *moreno de cabelos ondulados* = *moreno de cabelo ondulado*). As a result of this operation, we counted 432 unique color-race terms.

The list of terms was too large to do meaningful statistics,so we reduced it to adequately manage the data. Harris (1970) concentrated on the 12 terms used more than 100 times. We aggregated terms according to their principle lexemes. For example, we grouped *moreno claro* and *moreno escuro* with *moreno*. We combined *mulato claro* and *mulato escuro* with *mulato*. And we lumped all of the terms used by less than 10% of the respondents which could not be reclassified by their primary lexeme into one of four categories based on reference to skin tone (e.g.*cor de canela*), hair quality (e.g. *cabelo pixaim*), geographical origin (e.g. *Baiano*), and miscellaneous referents.

Table 1 ranks the 18 resulting terms and categories according to their cultural saliency; that is, the percentage of respondents using a particular term (Sanjek 1971).

Only *moreno, branco, preto and mulato* were used by more than 50%of the respondents. *Claro, mestiço, sarará, índio*, and *crioulo* were used by fewer than 25% of the respondents. *Pardo* was used by less than 10% of the respondents.

Underlying Dimensions Shaping the Cognitive Domain

How did the respondents judge the similarity and differences between the portraits? What shapes the cognitive domain in terms of assessing which category an informant would select when presented with a distinct portrait? In other words, which criterial attributes or

physical cues would influence informants' responses based on Harris' 1970 study? Harris had neither the techniques nor the computer power to answer these questions effectively. Now anthropologists can partially answer them by using Multiple Regression QAP analysis (MRQAP), a procedure to do multiple regressions on proximity matrices.

Table 1 - Saliency of Terms According to Frequency and Percent of Respondents Using Color-Race Terms.

	Color-Race Terms	Frequency Used	Number Using Term	Percentage Using Term
1)	Moreno	1,576	79	90
2)	Branco	791	61	69
3)	Preto	539	59	67
4)	Mulato	800	50	57
5)	Negro	425	41	47
6)	Cabo Verde	249	29	33
7)	Alvo	370	28	32
8)	Escuro	254	28	32
9)	Caboclo	134	26	30
10)	Other (skin)	157	24	27
11)	Other (misc.)	113	22	25
12)	Claro	192	21	24
13)	Mestiço	244	20	23
14)	Sarará	129	19	22
15)	Índio	99	17	19
16)	Other (hair)	65	14	16
17)	Other (origin)	121	12	14
18)	Crioulo	78	10	11

Our procedure to conduct MRQAP analysis was as follows. Using UCINET5 (Borgatti, Everett & Freeman 1993), we created a portrait by portrait (that is column by column) match-frequency similarity matrix for informant responses. The judged similarity of the

portraits to one another is the dependent variable in the MRQAP model. Second, we created column by column similarity matrices for the model's independent variables which were composed by the physical cues of sex, hair quality, skin tone, nose form, and lip form that were incorporated in the portraits shown to informants by Harris. Then we ran MRQAP analysis to predict the similarity between the portraits by the effects of each of these independent variables.

As Sanjek (1971: 1130) previously observed, we hypothesized that skin tone and hair quality are the most influential variables shaping the domain.Both should have much greater influence on informant response than nose form, lip width,or sex.

Table 2 shows that the model had an R^2 of 0.493 (p-value $= <0.000$). Hair type, skin tone and, surprisingly, sex were significant (p-value $= < 0.000$); all three variables affect how similar the portraits appeared to the respondents. The influence from the lip and nose variables were not statistically significant.

Table 2 - Multiple Regression QAP Results.

Variable	Un-Standardized Coefficient	One-Tailed Probability	Two-Tailed Probability
Intercept	0.136	1.000	1.000
Hair	0.160	0.000	0.000
Skin Tone	0.158	0.000	0.000
Sex	0.058	0.000	0.000
Lip	0.001	0.337	0.840
Nose	0.002	0.291	0.689

Model Fit: (R-Square = 0.493, p-value <=0.000)

The Relationship Between Phenotype and Color-Race Identity

Given that underlying features affect the perceived similarity among the 72 portraits, the next question to answer is, "Is there

consensus among any demographic groups about how to apply color-race terms to combinations of phenotypes"?

Harris used cumulative histograms to show how specific terms were applied to all the portraits. But he could not precisely estimate informant consensus either for the entire set of respondents or for various demographic subgroups. Since then Romney, Weller & Batchelder (1986) developed consensus analysis, an operational method which measures the degree of agreement between informants. In order to execute an analysis of consensus among informants, culture is defined as shared knowledge. As such, the more the respondents agree with one another, the more likely would be the probability that informants are "expert" members of a given cultural group. In this manner, their answers would represent "correct" cultural responses, in a modal sense. Thus, consensus would be represented by the degree of agreement encountered between informants' reponses. The data set yielded in this operation would exhibit a distribution of responses where cultural members who agree with one another would form a cluster within the general response matrix.

Consensus is operationally defined as the ratio between the first and second eigen values generated in a factor analysis of informant responses. If the ratio between eigen values is three-to-one or more, then there is a solid degree of shared agreement, or consensus, between informants. Conversely, if the eigen value ratio is less than three-to-one then respondents do not reach consensus (Borgatti 1992). Romney, Weller & Batchelder (1986) stress that the confidence placed upon consensus estimates depends partly upon the cultural competency scores of the respondents. Therefore, even if the ratio between eigen values is higher than 3.0, negative or small competency scores can suppress the mean competency score beyond tolerable limits, thereby violating the assumption of cultural competency, rendering consensus estimates and Baysian inferences suspect.

Harris claimed that, taken as a whole, the Brazilian color-race cognitive domain is ambiguous. If that is true, then all the respondents collectively should not reach consensus about how to name the portraits. To test that hypothesis, we conducted consensus analyses using the multiple choice method of calculation available in Anthropac 4.0 (Borgatti 1992).

As Table 3 illustrates, the analysis supports Harris' basic contention; the entire sample of Brazilian respondents could not reach consensus (even with the reduced number of terms effected by our data management procedures). Similarly, respondents from the states of Alagoas, Ceará, and São Paulo did not reach consensus. However, contrary to Harris' claim for ambiguity at all regional levels, respondents from Bahia, Pernambuco, and Rio de Janeiro did reach consensus. Aggregated regionally, respondents from states in Northeastern Brazil (Alagoas, Bahia, Ceará, Pernambuco, and Paraíba) reached consensus even though members from Alagoas and Ceará could not. Respondents from the Southeastern states (São Paulo, Minas Gerais, Espírito Santo, and Rio de Janeiro) did not reach consensus.[5] These results indicate that regional differences in the demarcation of color-race identities or dialects may partly explain why the respondents as a whole failed to reach consensus.

The only other demographic group to reach consensus consisted of individuals with more than 12 years education. Interestingly, 42% of those respondents came from the Northeast and the rest from the Southeast. This suggests that education diminishes regional differences

[5] Although we state that southeastern states did not reach consensus, Table 3 indicates otherwise. The reason for this contradiction is that we subsumed the information obtained from central Brazil in the southeastern category. Harris collected information from informants residing in Brasília, who were originally from southeastern states. We listed these informants as members of southeastern states, which boosts the degree of consensus in Table 3 for the southeastern region. We decided to subsume these informants under their area of origin because, during the time of Harris' original study, Brasília had been recently founded (1960), and most of the people residing in that federal district were from elsewhere.

in the terms used to mark color-race identities, if not in what respondents think constitutes particular color-race categories.

Despite the fact that sex was one of the underlying features of the cognitive domain, the informant's sex and the sex of the portraits did not seem to make much difference in the naming process. Neither male or female respondents reached consensus about how to name either portraits of males or females.

Table 3 - Consensus Estimates by Demographic Group.

Sample Group	Ratio	Consenus Estimate
ENTIRE SAMPLE	2.440	0.362[a]
BY STATE	Ratio	Consensus Estimate
Alagoas (n=30)	2.014	0.375
Bahia (n=15)	5.384	0.474
Ceará (n=8)	1.422[b]	0.352
Pernambuco(n=7)	7.720	0.499
Rio de Jan.(n=6)	5.764	0.599
São Paulo (n=13)	2.881	0.343[a]
BY REGION	Ratio	Consensus Estimate
Southeast (n=23)	4.056	0.420[a]
Northeast (n=62)	3.313	0.393
BY EDUCATION	Ratio	Consensus Estimate
0-5 years (n=47)	2.681	0.351[a]
6-11 years (n=20)	2.551	0.410
12+ years (n=21)	3.059	0.466
BY SEX	Ratio	Consensus Estimate
(respondents, portraits)		
All, male	2.704	0.393[a]
All, female	1.746[b]	0.325[a]
Male, all	2.773	0.380
Female, all	1.868	0.337
Male, male	2.978	0.408
Male, female	2.189	0.347
Female, male	2.190	0.376
Female, female	1.347[b]	0.289[a]

a. Violates assumption of cultural competency.
b. Violates assumption of single culture.

Future Research

Brazilian racial politics and debates about the validity of the IBGE census categories makes any assessment of color-race identities a priority issue. Researchers and policy makers are faced with several possible emic or etic procedures to arrive at adequate color-race categories. We have argued that efforts to salvage the current census categories by dichotomizing them during data analysis further distort the population profile. We also demonstrated that strict etic codes of biological race are elusive, imposing, and fraught with potential pitfalls. We also hope to have demonstrated that the tools developed recently by cognitive anthropologists can identify the factors and categories underlying the Brazilian emic cognitive domain. We suggest that researchers use these techniques throughout Brazil in a series of coordinated emic studies, including areas not covered in Harris'original 1970 study (i.e., Brazil's Northern and extreme Southern regions). These studies may assist the IBGE in identifying the census categories that more closely reflect Brazil's emic color-race demographic profile. Although the categories which were distilled and presented in our reanalysis of Harris' original study do not represent mutually exclusive entities, they are indicative that future emic research will revise prevailing notions of Brazilian racial identity. Our approach of examining inter-informant agreement through Consensus Analysis can potentially elicit categories that would more accurately reflect Brazilian socio-economic population profiles for purposes of examining Brazil's demographic situation according to race and ethnic groups.

Lastly, while Harris' contention was correct in that the Brazilian domain for racial classification, as a whole, remains ambiguous, he was also correct to point out that the amount of disagreement encountered between Brazilians does not necessarily represent an

aberrant situation in terms of cognitive studies. While many categories of the folk vernacular often overlap with one another and prove to be elusive for purposes of establishing a sharp and highly defined racial classification system, our reappraisal of Harris' study shows that there is an orderliness in the dimensions shaping the cognitive domain, not to mention that the tools and techniques we employed also demonstrated that consensus is reached among given groups of Brazil's demographic profile. For this reason we urge that the combination of emic and etic studies can illustrate that what ostensibly seems to be anectdotal information can reveal underlying orderly criteria which may go unnoticed without the application of new methods.

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