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Abstract

Forensic anthropology is the application of the history, structure, and development of mankind in a forensic setting and serves as a bridge between societal and anthropological views on race. Forensic anthropology is a relatively new field and yet it, like all sciences, is impacted by the works of those who came before. While forensic anthropology is aided by the classification groups created in the past, it is hindered by the mantle of racism that covers any study into human differences. This study was intended to determine how the general educated public, as portrayed by members of Western Oregon University, viewed forensic anthropological terminology and to establish whether or not this opinion was influenced by age, position at WOU, or ethnicity. Age appeared to be the most significant factor when studying a participant's reaction to and understanding of the selected forensic anthropological terminology. Although a wide variety of participant definitions was given for each term, relatively few respondents connected the terms with the scientific use: racial classifications based on biological accumulation of traits seen in the skeleton. The wide variety of definitions indicates that the field of forensic anthropology in general, and at Western Oregon University specifically, has not satisfactorily educated the general public as to the use, and reason behind the use, of the terms Mongoloid, Negroid, and Caucasoid in their appropriate scientific setting. However, the forensic anthropology program at WOU has begun only recently. As the program expands and more members of the campus community, particularly students, understand the terms Mongoloid, Negroid, and Caucasoid in their proper forensic anthropological setting, perhaps we will see a trend towards unity in definitions in the coming years.

Keywords

Forensic, Ethnicity, Ethnic, Society, Identification, ID, Anthropology, Forensic Anthropology, Caucasoid, Mongoloid, Negroid, Societal Conflict, Forensic Conflict

The Potential Conflict between Forensic Ethnic Identification and Societal Interpretation in America

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Forensic anthropology is the application of the history, structure, and development of mankind in a forensic setting and serves as a bridge between societal and anthropological views on race. Forensic anthropology is a relatively new field and yet it, like all sciences, is impacted by the works of those who came before. While forensic anthropology is aided by the classification groups created in the past, it is hindered by the mantle of racism that covers any study into human differences. This study was intended to determine how the general educated public, as portrayed by members of Western Oregon University, viewed forensic anthropological terminology and to establish whether or not this opinion was influenced by age, position at WOU, or ethnicity. Age appeared to be the most significant factor when studying a participant's reaction to and understanding of the selected forensic anthropological terminology. Although a wide variety of participant definitions was given for each term, relatively few respondents connected the terms with the scientific use: racial classifications based on biological accumulation of traits seen in the skeleton. The wide variety of definitions indicates that the field of forensic anthropology in general, and at Western Oregon University specifically, has not satisfactorily educated the general public as to the use, and reason behind the use, of the terms Mongoloid, Negroid, and Caucasoid in their appropriate scientific setting. However, the forensic anthropology program at WOU has begun only recently. As the program expands and more members of the campus community, particularly students, understand the terms Mongoloid, Negroid, and Caucasoid in their proper forensic anthropological setting, perhaps we will see a trend towards unity in definitions in the coming years.

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Introduction

Today, America is continuing to struggle away from racial stereotypes and discrimination, turning the validity and importance of racial identification in forensic anthropology into a cross-disciplinary debate involving biology, anthropology, and society as a whole. Biology and anthropology both claim that discrete human races do not exist, while society continues to use race to describe human life. Forensic anthropology is the application of the history, structure, and development of humankind in a forensic setting and serves as a bridge between societal and anthropological views on race. However, forensic anthropologists are sometimes accused of racism by supporting the existence of discrete races and perpetuating this idea in society. In this paper, I specifically address the reaction of society to select forensic anthropological racial classificatory terminology: Mongoloid, Negroid, and Caucasoid.

What is Race?

Biology and society do not agree on the concept of race. For this reason, there are different terms used in conjunction with social and biological views of human differentiation.

Ethnicity is defined *by society for use in society* [1]. It is constantly changing and has no scientific foundation. This term reflects a person's cultural heritage more than any physical differences. However, what constitutes racial divisions is not clearly defined. For example, while the Irish generally possess fair skin, for immigration purposes in the early twentieth century the Irish were not considered white [2].

Biological "race" is "a division of a species which differs from other divisions by the frequency with which certain hereditary traits appear among its members" [3]. Rather than focusing on superficial population differences, such as skin color, biologists look at the frequency of traits which occur to varying degrees among "races" [4]. This term is most often applied to subspecies of lower vertebrates; biologists have largely

disregarded the idea of discrete biological differences between populations of humans.

Social race and biological race are not the same. A person described as “Hispanic” is described by a social race; this term could refer to populations such as “southern European white, Spanish-speaking Mesoamerican or South American Indian, or...a blend of the two” [5]. These populations are not discrete biological races, but rather populations with higher frequencies of a particular trait, such as dark hair or light skin, than a surrounding population.

What, then, is race? Race is a social construct perpetuated by social recognition of superficial physical differences between populations.

Classification Systems

Humans have an inherent need to classify and organize the world around them. Understanding how people are organized socially today requires a look back at how they were classified in the past. What follows is a brief description of three examples of historic classification systems: the Great Chain of Being, Carolus Linnaeus’ classification system, and Johann Blumenbach’s separation of humanity.

Aristotle’s Great Chain of Being was furthered during the Enlightenment from the 17th century to the early 18th century. The Great Chain of Being emphasized three central concepts: plentitude, continuity, and gradation [6]. Plentitude meant that everything that could exist did exist. Continuity meant that everything in the universe had an infinite series of forms and that each form shared at least one attribute with its neighbor. Finally, gradation meant that all forms were represented, from the least existence to God Himself, in a line from inferior form to superior form.

This system was used to place the world in order. God was the highest form as He was most perfect. Angels were second only to God. Man, created in God’s image, fell just below angels and the rest of creation lined up below man. However, man was not created identical; some had lighter and some darker skin. European scientists of lighter skin began to hypothesize that men of lighter skin must be closer to God and those of darker skin closer to the beasts [7].

Carolus Linnaeus lived during the end of the Great Chain’s reign and was most famous for creating the binomial classification system scientists use today. However, he also divided humanity into different varieties based on geographic regions representing the four corners of the earth: *Europaeus* (European), *Americanus* (American Indian), *Asiaticus* (Asian), and *Afer* (African) [7]. Though Linnaeus described people of geographical areas, he described Europeans as having

more desirable traits than any other variety. In this way, he perpetuated and even legitimized the idea of white superiority.

Johann Blumenbach had a “primary role in founding the science of modern anthropology” [8]. When Linnaeus separated humanity, he grouped them as varieties of a whole, with none higher and none lower than the others. However, in the 1780’s, Blumenbach organized Linnaeus’ 4 *varieties* into 5 *races* - Caucasian, Mongolian, Negroid or Ethiopian, Malayan, and American Indian - that extended outwards from a Caucasian ideal [9, 10]. Blumenbach created the term “Caucasian” because he hypothesized that people in the region of the Caucasus Mountains, the theoretical location of the Garden of Eden, were the most beautiful, and therefore the closest to God. Since humanity was created in God’s image and thereafter changed from the “ideal”, “we may fairly assume [white] to have been the primitive color of mankind” as it is easier for light to become dark than dark to become light [as quoted by Quintyn, 2010]. According to Blumenbach, humanity arose as beautiful, white beings and spread across the globe, acquiring variations in physical characteristics as time passed.

The Great Chain of Being placed white humans just inferior to God, while relegating those with darker pigmentation closer to the animals. Carolus Linnaeus broke from this classification of the natural world to categorize humanity according to geography. Blumenbach agreed that all humanity was related, spreading out from a single location; however, he reinforced the ideas that were prevalent at the time: white humans were more beautiful than, and thereby superior to, others [8]. His classification scheme, created over 200 years ago, is still used today.

Forensic Anthropology

Forensic anthropology is the application of biological anthropology in a forensic setting. That is, the study of human form, structure, and development is applied to unknown human skeletal remains. The forensic anthropologist is tasked with “trying to identify and quantify the major...genetic...components contributing to the person’s appearance” [11]. However, these essentially raw data are not useful to the investigating police officer. Therefore, the forensic anthropologist must translate these genetic components into terms that the general public can understand. After all, forensic anthropologists communicate with the public, not with biological anthropologists who understand the subtleties of human variation [12]. That is why forensic anthropologists must present all findings in

terms which reflect the everyday usage of the society with which they interact [13-17].

However, some anthropologists feel that racial identification perpetuates racial stereotypes and validates the concept of discrete races [12, 18]. Contrarily, George Gill, a biological anthropologist, claims that it is not a problem if anthropologists in general ignore traditional concepts of race if they prefer quantitative approaches, however, “the forensic

anthropologist *must* address race” [5, his emphasis]. Norman Sauer, a forensic anthropologist, furthers Gill’s assertion by stating that “race identification by forensic anthropologists has little to do with whether or not biological races exist” [13].

Regardless of whether or not race exists, research into racial identification has slowed in recent years, in part because “there is a fear that the mantle of ‘racist’ will settle upon anyone unwise enough [to study skeletal variability in terms of race]” [17]. As Americans in particular have become more and more socially aware, so, too, does the stigma attached to racial classification.

American forensic anthropologists have traditionally identified remains using three of the five main races set forth by Johann Blumenbach in the 1780’s: Mongoloid, Negroid, and Caucasoid. These three categories are among the most commonly seen in America. However, as humanity grows ever more homogeneous due to the ease of travel and the relaxing of racial segregation throughout the world, the identification process becomes more ambiguous. Currently, forensic anthropologists can reliably determine the race of a set of remains 85 to 90% of the time [13]. Yet, without further research, current methods could eventually become obsolete, especially if budding forensic anthropologists shun research pertaining to racial classification due to social taboo.

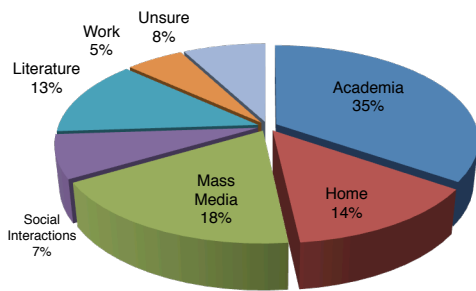


Figure 1a Distribution of Where Participants had Heard Mongoloid

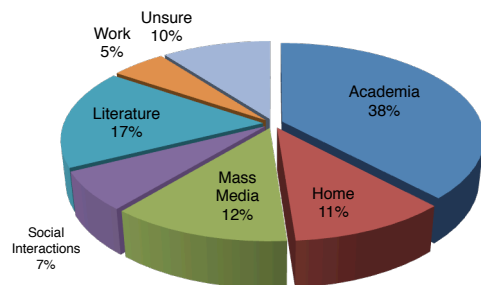


Figure 1b Distribution of Where Participants had Heard Negroid

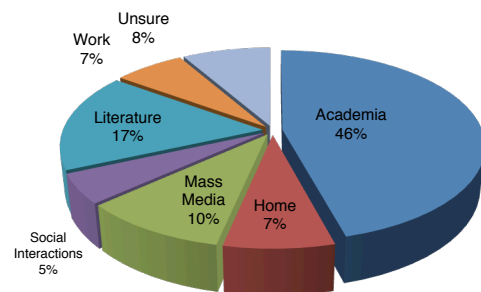


Figure 1c Distribution of Where Participants had Heard Caucasoid

Methods

My research on society’s interpretation of the three main “races” in America - Mongoloid, Negroid, and Caucasoid - was conducted through a survey designed to test for pre-existing awareness as well as pre-existing understanding of the terminology. Additional information, such as age, position at Western Oregon University, and ethnic self-identification, were collected for comparison.

I distributed this survey both online and in person. Online, the participant was merely required to agree to take the survey; I collected signed informed consent forms during the in-person survey. These consent forms were folded and placed in a sealed box by the participant. The box was then shaken on occasion, mixing the forms and making it impossible to match a consent form with the anonymous questionnaire.

The online portion of this survey was created using Survey Gizmo. The URL for the survey was emailed across campus using the all faculty/staff and all student email addresses. Additionally, the survey was handed out in person. In this instance, I stood in front of the Werner University Center, a prominent building at the center of Western Oregon University’s campus, on two separate days for roughly one hour and a half each day and asked for responses. After these two days, one before and one after spring break, I had collected over

50 surveys in person, with a collective total of more than 300 responses.

The results were catalogued and analyzed using Microsoft Excel. Paired T-tests were performed using Microsoft Excel.

Results

The majority of survey respondents were between the ages of 18 and 29 (58%). Fourteen percent were 30 to 39, 10% were 40 to 49, 11% were 50 to 59, and 7% were 60 or older. The remaining 2% did not provide their age. Almost 200 participants (65%) were students at Western Oregon University. Additionally, 16% were faculty, 15% were staff, and 4% did not fall into the above categories. Of the participants that provided an ethnic self-identification, 80% self-identified as white or Caucasian. One percent was African-American, 2% American Indian, 4% Asian, 1% Pacific Islander, 7% Hispanic, and 5% identified as other. The “Other” category ultimately included identifications such as Finnish-American and German because these are not necessarily indicative of an ethnic group.

Previous Experience with Terminology

Sixty-three percent of respondents had heard the term “Mongoloid” before. Of these, 35% had heard it in an academic setting. Fourteen percent had heard it at home, 18% in any form of media, and 7% through social interactions. Thirteen percent read the term in literature, 5% heard it at work, and 8% were unsure of where they had heard it before (Fig 1a).

Roughly half (52%) had heard the term “Negroid” before. Of these, 38% heard it in academia, 11% at home, 12% through the media, and 7% through social interactions. Seventeen percent had read the term in literature, 5% had heard it at work, and 10% were unsure (Fig 1b).

Approximately one third (33%) of participants had heard the term “Caucasoid” before; 46% in academia, 7% at home, 10% in media, and 5% through social interactions. Seventeen percent read it in literature, 7% heard it through work, and 8% were unsure (Fig 1c).

Participant Definitions

To establish how well each participant understood the terminology, participants were asked to provide a definition, regardless of whether or not they had heard the term before. Six percent of respondents did not provide a meaning for the term “Mongoloid”. After compiling the responses, the remaining 94% were sorted into six categories: Unsure (13%), From Mongolia Directly (14%), Of Asian Ancestry/Descent/Characteristics (19%), Relating to Down Syndrome/Mental Deficiency (23%), Relating to Ancient Humans (3%), and Other (22%) (Fig 2a). Responses which

mentioned Asia or Mongolia without referencing ancestry, descent, or characteristics of any sort were placed in the “From Mongolia Directly” category. Some responses vaguely mentioned human or racial classification in general. These were placed in “Other” because they did not specifically mention Asian or Mongolian ancestry, descent, or characteristics.

Six percent of respondents did not attempt to define the term “Negroid”. The remaining 94% were sorted into six categories: Unsure (10%), From Africa Directly (5%), Of African Ancestry/Descent/Characteristics (27%), “Black” (25%), Relating to African (American) Culture/Ethnicity (11%), and Other (16%) (Fig 2b). Participant responses that mentioned Africa but did not specify

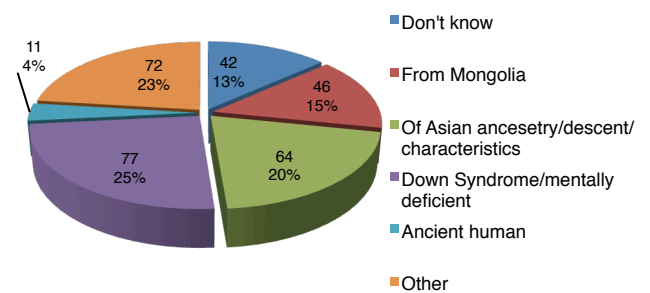


Figure 2a Meanings Attributed to the Term “Mongoloid” by Respondents

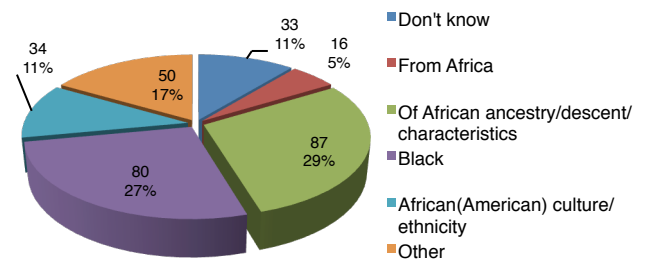


Figure 2b Meanings Attributed to the Term “Negroid” by Respondents

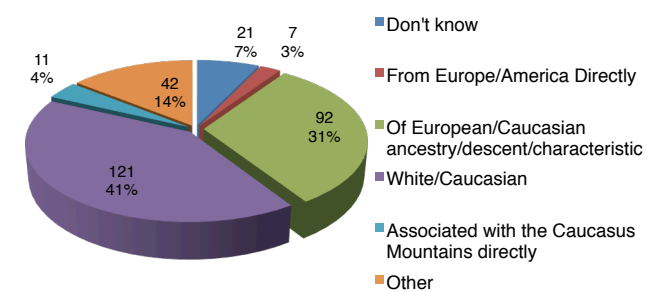


Figure 2c Meanings Attributed to the Term “Caucasoid” by Respondents

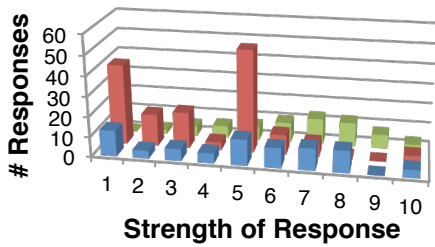


Figure 3a Strength of Response to Forensic Use

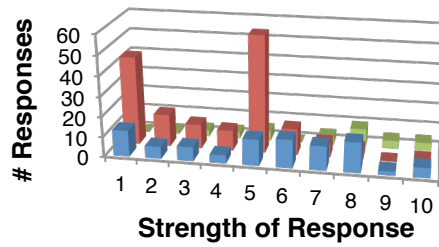


Figure 3b Strength of Response to Biological Use

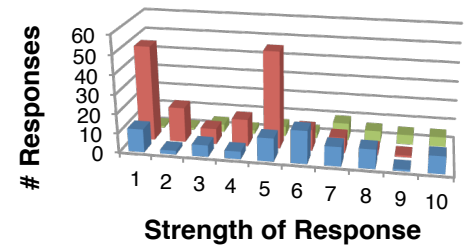


Figure 3c Strength of Response to Overall Terminology

Key: ■ Positive ■ Neutral ■ Negative

ancestry, descent, or characteristic traits were classified as “From Africa Directly”. Others mentioned African or African-American culture or ethnicity. These were separated from African ancestry, descent, and characteristics because of the difference between ethnicity and ancestry; ethnicity is a social classification while ancestry is biological history.

Seven percent of respondents did not provide a definition for the term “Caucasoid”. The remaining 93% fell into six general categories: Unsure (6%), From Europe Directly (2%), Of European/Caucasian Ancestry/Descent/Characteristics (29%), White/Caucasian (39%), Associated with the Caucasus Mountains Directly (4%), and Other (13%) (Fig 2c). Any responses which mentioned Europe without mentioning ancestry, descent, or characteristics in general were categorized as “From Europe Directly”. This category also differed from “White/Caucasian”, a category reserved especially for the social classification.

Forensic and Biological Aspects

To determine how they felt about the terminology participants were asked to rate their reactions to the use of Mongoloid, Negroid, and Caucasoid as positive, negative or neutral. The terminology was defined from both a forensic and a biological viewpoint. The former described the use of the terminology in a criminal justice setting, illustrating the use of skeletal features for racial identification. The latter described the terminology in a biological setting, with emphasis on the gradual accumulation of traits in a particular population. Participants were given a brief summary of how a forensic anthropologist looks at a skull for the presence, absence, and significance of pre-established features to “translate” into social race. They were then given a brief summary of biological evolution and what the accumulation of traits means to a population and, therefore, to a forensic anthropologist. The majority of participants reported neutrality for both forensic and biological perspectives (51.5% and 57.4% respectively). Twenty-six percent of reactions to the forensic use of the terminology were positive and 22.2% were negative. On a rating scale from 1 to 10, with 1 being indifferent and

10 being strongest, 53% of the positive responses to the forensic use were rated 5 or below; 47% were above 5 (Fig 3a). Contrarily, 73% of negative responses to the forensic use received a strength rating above 5. Respondents neutral to the forensic usage largely rated their reaction as either 1 or 5. Few (15%) neutral responses were above a strength rating of 5.

Thirty-one percent of respondents found the biological use of the terminology positive and 11.3% found it negative. Fifty-two percent of all positive responses fell between a strength rating of 5 and 8. The negative responses were also predominantly high (64% above 5), although largely 8, 9, and 10 (Fig 3b). The neutral responses were again largely 1 or 5.

When asked to rate their overall reaction after the different aspects were explained, 56.9% of respondents were neutral, 28.8% found the biological and forensic aspects to be positive, and 14.2% found them to be negative. The majority (57%) of positive responses were above 5, with the highest ratings between 5 and 8. Sixty-eight percent of negative responses were above 5, with ratings highest between 7 and 10. Of the neutral responses, most rated their reaction as either 1 or 5 (Fig 3c).

Participant responses were then compared between forensic and biological aspects; there was a significant correlation between positive responses to the forensic aspect and positive responses to the biological aspect (Table 1). Additionally, there was a significant correlation between positive responses to the forensic aspect and positive responses to the overall application. That is, respondents who found the forensic aspect to be positive were more likely to find the biological aspect and the overall application to be positive as well. However, there was no correlation between positive biological aspect and positive overall application of the terms (Table 1, response vs. strength). There was a significant correlation between neutral responses to the forensic aspect and neutral responses to both the biological aspect and the overall application. Additionally, there was a significant correlation between the neutral

Table 1 p-values and r² values

Response vs Strength								
	p	r2		p	r2		p	r2
PF v PB	0.00	0.88	NUF v NUB	0.00	0.96	NEF v NEB	0.15	0.24
PF v PC	0.01	0.60	NUF v NUC	0.00	0.90	NEF v NEC	0.06	0.38
PB v PC	0.00	0.09	NUB v NUC	0.00	0.95	NEB v NEC	0.04	0.42
Definition vs Age								
MONGOLOID	p	r2	NEGROID	p	r2	CAUCASOID	p	r2
18 v 30	0.82	0.02	18 v 30	0.01	0.82	18 v 30	0.01	0.85
18 v 40	0.72	0.04	18 v 40	0.08	0.57	18 v 40	0.01	0.82
18 v 50	0.60	0.07	18 v 50	0.00	0.90	18 v 50	0.00	0.92
18 v 60	0.46	0.14	18 v 60	0.10	0.54	18 v 60	0.03	0.72
30 v 40	0.00	0.96	30 v 40	0.39	0.19	30 v 40	0.04	0.70
30 v 50	0.05	0.67	30 v 50	0.00	0.90	30 v 50	0.00	0.95
30 v 60	0.04	0.69	30 v 60	0.12	0.49	30 v 60	0.01	0.83
40 v 50	0.09	0.55	40 v 50	0.17	0.41	40 v 50	0.04	0.69
40 v 60	0.04	0.68	40 v 60	0.13	0.48	40 v 60	0.01	0.88
50 v 60	0.01	0.86	50 v 60	0.04	0.70	50 v 60	0.03	0.73
Reactions vs Age								
Forensic Pos	p	r2	Biological Pos	p	r2	Overall Pos	p	r2
18 v 30	0.57	0.04	18 v 30	0.28	0.14	18 v 30	0.32	0.13
18 v 40	0.23	0.17	18 v 40	0.86	0.00	18 v 40	0.03	0.46
18 v 50	0.53	0.05	18 v 50	0.98	0.00	18 v 50	0.60	0.04
18 v 60	0.92	0.00	18 v 60	0.92	0.00	18 v 60	0.39	0.10
30 v 40	1.00	0.00	30 v 40	1.00	0.00	30 v 40	0.37	0.10
30 v 50	0.90	0.00	30 v 50	0.91	0.00	30 v 50	0.37	0.10
30 v 60	0.15	0.24	30 v 60	0.61	0.03	30 v 60	0.54	0.05
40 v 50	0.03	0.46	40 v 50	1.00	0.00	40 v 50	0.78	0.01
40 v 60	0.18	0.22	40 v 60	0.06	0.37	40 v 60	0.23	0.18
50 v 60	0.91	0.00	50 v 60	0.15	0.24	50 v 60	0.11	0.28
Forensic Neu	p	r2	Biological Neu	p	r2	Overall Neu	p	r2
18 v 30	0.42	0.08	18 v 30	0.02	0.53	18 v 30	0.00	0.69
18 v 40	0.00	0.89	18 v 40	0.00	0.72	18 v 40	0.00	0.80
18 v 50	0.11	0.29	18 v 50	0.01	0.58	18 v 50	0.03	0.48
18 v 60	0.01	0.65	18 v 60	0.00	0.83	18 v 60	0.85	0.01
30 v 40	0.20	0.19	30 v 40	0.20	0.19	30 v 40	0.03	0.45
30 v 50	0.07	0.35	30 v 50	0.01	0.56	30 v 50	0.00	0.79
30 v 60	0.40	0.09	30 v 60	0.01	0.62	30 v 60	0.75	0.01
40 v 50	0.07	0.35	40 v 50	0.06	0.36	40 v 50	0.09	0.32
40 v 60	0.00	0.74	40 v 60	0.00	0.72	40 v 60	0.38	0.10
50 v 60	0.03	0.47	50 v 60	0.00	0.65	50 v 60	0.78	0.01
Forensic Neg	p	r2	Biological Neg	p	r2	Overall Neg	p	r2
18 v 30	0.52	0.05	18 v 30	0.69	0.02	18 v 30	0.91	0.00
18 v 40	0.51	0.06	18 v 40	0.55	0.05	18 v 40	0.85	0.00
18 v 50	0.67	0.02	18 v 50	1.00	0.00	18 v 50	0.92	0.00
18 v 60	0.76	0.01	18 v 60	0.36	0.11	18 v 60	0.54	0.05
30 v 40	0.28	0.15	30 v 40	0.10	0.30	30 v 40	0.23	0.17
30 v 50	0.01	0.62	30 v 50	0.40	0.09	30 v 50	0.83	0.01
30 v 60	0.48	0.06	30 v 60	0.84	0.01	30 v 60	0.72	0.02
40 v 50	0.08	0.33	40 v 50	0.06	0.36	40 v 50	0.03	0.46
40 v 60	1.00	0.00	40 v 60	0.40	0.09	40 v 60	0.17	0.22
50 v 60	0.29	0.14	50 v 60	0.14	0.25	50 v 60	0.63	0.03

biological aspect and the neutral response to overall application. However, there was no correlation between any negative responses.

Participant Definition and Age

The data were then analyzed to determine if there was a correlation between the participant definition of Mongoloid, Negroid, and Caucasoid and participant age. There was a significant correlation between definition of Mongoloid and participants 30 or older, as well as between the definition of Negroid and most age ranges. There was also significant correlation between the definition of Caucasoid and all age ranges (Table 1, Definition vs. Age). In this case, a significant correlation between ages indicated that the selected age ranges defined the term similarly, and the definitions did not change.

Participant Reaction and Age

Positive and negative reactions to the forensic and biological uses indicated a normal level of variation. This was also the case in the reaction to the uses once the differences were clear. However, there were several instances of significant correlation as well as significant lack of correlation in the neutral responses to all uses (Table 1, Reactions vs. Age).

Discussion

Age proved to be the best factor for comparison. Overall, strength of response to Mongoloid, Negroid, and Caucasoid increased as age increased. Definitions, however, remained relatively constant as age increased; Negroid was most often associated with ancestry and Caucasoid most often associate with “being white”. Ages 18-29 and 40-59 most often associated Mongoloid with Down Syndrome. However, these categories are very broad and hide the wide array of participant definitions; such diversity in participant definitions suggests more work is to be done on educating society as to the practical application of biological differences between populations in forensic anthropology.

On average, nearly 64% of participants had encountered the terminology Mongoloid, Negroid, or Caucasoid at school, at home, or in the media; these three areas also tend to be the places where people spend the bulk of their time. It is therefore concerning to the field of forensic anthropology that 26% associated “Mongoloid” with Down Syndrome, mental inferiority, or an ancient ancestor of modern human. Many participants also specified, regardless of definition, that “Negroid” was “a racist” term. Even “Caucasoid” was not free from the stigma of racism; one participant wrote that it referred to “people [who] only like white people” while another said is a “racial slur for a Caucasian”. Participants who associated the term with racism or mental deficiencies were more likely to have heard the

term used this way by family, friends, teachers, or media personalities than to have read it in literature (70% and 16%, respectively).

Strength of reaction to the forensic, biological, and overall aspects of Mongoloid, Negroid, and Caucasoid was rated on a scale of 1 to 10; 1 meant the participant was indifferent to the practical application of Mongoloid, Negroid, or Caucasoid presented to them, while 10 meant they felt very strongly about the application. A reaction strength rating of either 1 or 5 occurred in higher-than-normal amounts across the board. The high occurrence of 1 was expected; it was the lowest score the participant was able to give and therefore the best way to portray that the participant did not care about the use or was not concerned in the slightest. The high occurrence of 5 was anomalous, but was potentially due to the similarity between the study’s scale and scales other studies use. For instance, in standard scales, 5 is the indifferent number. In this study, 1 was used to indicate indifference. If the participant was not aware of this, possibly because they did not read the question thoroughly, then they would potentially choose 5, thinking it was neutral. In fact, when asked for comments on the study, several respondents admitted they were not paying close attention when reading the different aspects and overall application. The anomaly in itself indicated that respondents in general were not overly concerned by the use of racial classifications in science; those that read the survey thoroughly and responded in kind are the minority.

Especially interesting in defining terms, participants age 18 to 29 and age 40 to 59 both associated “Mongoloid” with Down Syndrome or mental deficiency most frequently (average of 28%). The remaining two age ranges did not. This could indicate that the younger participants are learning the term Mongoloid in classes, such as history, as a term to avoid; it could also have been heard from parents, teachers, or media personalities in a derogatory sense. The majority of each age range, however, associated “Negroid” with African ancestry, descent, or characteristics, rather than with just “being black” (although this was a close second in every case). This was not the case with “Caucasoid”; most associated the term with “being white”. There was, in fact, no significant difference between definition of a term and the age of an individual; that is to say, the frequency of a definition did not change significantly with age.

Although, on average, half of the participants had heard the terminology before, they provided a plethora of definitions for each term. The wide variety of definitions indicated that biological and social science in general, and at Western Oregon University specifically, has not

satisfactorily educated the general public as to the use, and reason behind the use, in its appropriate scientific setting. However, as the forensic anthropology program at WOU is just beginning, and not all participants have been exposed to courses explaining the proper use; perhaps we will see a trend towards unity in definitions in the coming years as the program develops.

As it stands, participants who responded positively to the forensic aspect of Mongoloid, Negroid, and Caucasoid were more likely to respond positively to the biological aspect as well as to the terminology as a whole. However, those that found the biological aspect to be positive, independent of the forensic, were less likely to find the terminology as a whole to be positive (Table 1, response vs. strength). The forensic aspect in the survey discussed practical applications in a criminal justice setting; the biological aspect mentioned changes in populations over time which can then be traced by a forensic anthropologist. The results indicated that participants view terminology positively when separated from biological differences, although these differences are the accumulated changes that are used in the criminal justice setting. The forensic anthropologist, then, must be aware of the broader social implications of biological differences, however slight, between humans; the reliance on slight biological differences to establish race is largely the reason that anthropology in general disagrees with forensic anthropology. However, these biological differences exist and are helpful; the best way to counter the social stigma is to educate society.

As age increased, the reaction to the forensic use shifted from a rating of 4 or 5 (18-29) to a rating of 7, 8 or 9 (50-60+), indicating a stronger reaction to the particular term. Since the 18 to 29 age range made the same association with Down Syndrome as the 40 to 59 ranges, the difference between reaction strengths is most likely due to the introduction of the proper forensic setting; since I did not ask participants for their strength of reaction to their own definition, it was impossible to tell which age group felt strongest about the terms before the different aspects were introduced. However, it became apparent that neutral responses to the uses aspects were generally in the lower numbers, negative responses were generally stronger, and positive responses were in the middle (between 4 and 6). If forensic anthropologists intend to educate the public about the terminology that is behind racial classification, they will have to first counter the strong negative responses and nurture the weaker positive responses.

Conclusion

Forensic anthropology is a relatively new field and yet it, like all sciences, is impacted by the works of those who came before. While forensic anthropology is aided

by the classification groups created in the past by Linnaeus and Blumenbach, it is hindered by the mantle of racism that covers any study into human differences. This study, then, was intended to determine how the general educated public, as portrayed by members of Western Oregon University, viewed forensic anthropological terminology and to establish whether or not this opinion was influenced by age, position at WOU, or ethnicity.

Overall, the results of this survey indicated that people at WOU were largely indifferent to the different ways in which the racial classification terms are applied. However, the minority that did react either positively or negatively to the use also reacted stronger on average than those that felt neutrally. The younger generations (age 18-39) felt less strongly about the use of the terminology as it pertains to science than did the older generations (age 50-60+), although the two groups defined the terms similarly.

Age appeared to be the most significant factor when studying a participant's reaction and understanding of the selected forensic anthropological terminology. Since the younger ages felt less strongly about the uses than the older ages, it would be best to devote most attention to educating adults age 18 through 39. Although a wide variety of definitions was given for each term, relatively few respondents connected the terms with the scientific use: racial classifications based on biological accumulation of traits seen in the skeleton. Instead, bringing biology into the discussion resulted in an increase in strong negative responses.

Participants who associated Mongoloid, Negroid, or Caucasoid with racism or mental deficiencies were more likely to have heard the term used this way by family, friends, teachers, or media personalities than to have read it in literature. The best way to counter association with racism is through continual education of the public. The wide variety of definitions indicated that the field of forensic anthropology in general, and at Western Oregon University specifically, has not satisfactorily educated the general public as to the use, and reason behind the use, of the terms Mongoloid, Negroid, and Caucasoid in their appropriate scientific setting.

However, the forensic anthropology minor program at WOU has begun only recently. As the program expands and more members of the campus community, particularly students, understand the terms Mongoloid, Negroid, and Caucasoid in their proper forensic anthropological setting, perhaps we will see a trend towards unity in definitions in the coming years. In turn, these students will spread their understanding of the biological and forensic applications of Mongoloid, Negroid, and Caucasoid to the community outside of

Western Oregon University. In this way, perhaps we can counter the fear that the “mantle of ‘racist’” [17] will fall upon those studying human skeletal variation in general and upon forensic anthropologists in particular.

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