Public Comment Deadline: 31-Jan-22

Document Title: ASB Standard 148, Standard for Personal Identification in Forensic Anthropology

#	Section	Type of Comment	Comments	Proposed Resolution	Final Resolution
11	3.1	T	How is 'normal' defined?	add definition of 'Normal' to '3 Terms and Definitions'	Reject with modification: The term "normal" was removed as defining it would be beyond the scope of this document and replaced with "typical skeletal anatomy" as commonly understood by anthropologists.
5	3.8	T	"Scientific identification" is defined as "The process of systematically comparing antemortem and postmortem biological data to facilitate a personal identification." But merely comparing data "systematically" is not necessarily scientific. If the comparison relies on folk wisdom, for example, it is not scientific no matter how systematic it may be. Moreover, even if the data comparison process is scientific, the result should be expressed not as a conclusion of "personal identification" or "scientific identification," but rather as a statement of the degree of support (a likelihood ratio or Bayes factor) for the hypothesis that the remains are those of a known individual.	Eliminate term and use of term	Reject: The term "scientific identification" is commonly used in both forensic anthropology and pathology to refer to identifications made based upon comparison of data (rather than circumstantial evidence).
12	3.8	T	systematically comparing' is not necessarily scientific. What system is used? Has that system been validated?	consider revising the definition of 'scientific identification' in 3.8 to explain what is 'scientific' about the identification	Reject: The term "scientific identification" is commonly used in both forensic anthropology and pathology to refer to identifications made based upon comparison of data (rather than circumstantial evidence). The approach will be different for DNA, fingerprints, odontology, and anthropology.
1	3.9 and 4.2.2.5	T	Sections are inconsistent. The definition of "skull-photo superimposition" (Section 3.9) refers to it as an **EX**clusionary technique, while the section addressing its application (Section 4.2.2.5) refers to "congruence" and "corroborative evidence" suggesting that it is an **IN**clusinoary identification technique.	Make sections consistent. Propose doing this by revising Section 4.2.2.5, such that the technique is suggested as an exclusionary method.	Accept with modification: The definition for 3.9 was modified and "exclusionary" was removed to make sections consistent
6	4.1	T	"All documentation should be of sufficient detail to allow for independent interpretation." Not clear what sufficient detail would be (e.g. what features?) or what independent is (blind verification?).	make clear that independent means blind verification by 2nd reviewer, and what "sufficient detail" would mean.	Reject with modification: The second paragraph has been updated for clarity. However, blind verification is not always possible. An explanation of what sufficient detail would be for various methods is beyond the scope of this document.
13	4.1	T	"scientific identification methods". It is unclear what these multiple methods might be since the definition of 'scientific identification' at 3.8 describes what sounds like a single process		Reject: See section 4.2.1 for methods that are used for scientific identifications in forensic anthropology. (Other scientific identification methods include DNA, fingerprint analysis, comparative dental radiography that are beyond the scope of this document).
14	4.1	T	"when appropriate, forensic anthropology practitioners shall consult other experts including odontologists, pathologists, radiologists, or other imaging experts" - this raises potential concerns about task [ir]relevant information and its impact upon the objectivity of the anthropologists conclusions.	suggest providing more information about when it is "appropriate" for forensic anthropologists to consult with practitioners from other disciplines, and how the task relevance of that information will be defined and managed.	Accept with modification: The last paragraph of 4.1 has been re-written for clarity. The management of task relevance is case and/or instition dependent as is beyond the scope of this document.

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7	4.2.1.1	T	The subsection states that "The goal of scientific identification methods is to systematically establish the consistency of antemortem and postmortem data in sufficient detail to conclude that they are from the same individual to the reasonable exclusion of other possibilities." The goal should be more modest--to supply the factfinder with a statement of the degree of support (a likelihood ratio or Bayes factor) for the hypothesis that the remains are those of a known individual. See, e.g., Am. Stat. Ass'n Position on Statistical Statements for Forensic Evidence, Am. Stat. Ass'n 1, 2-4 (Jan. 2, 2019), https://www.amstat.org/asa/files/pdfs/POL-ForensicScience.pdf [https://per ma.cc/X4AM-AVBU] ("To evaluate the weight of any set of observations made on questioned and control samples, it is necessary to relate the probability of making these observations if the samples came from the same source to the probability of making these observations if the questioned sample came from another source in a relevant population of potential sources. . . . We . . . strongly advise forensic science practitioners to confine their evaluative statements to expressions of support for stated hypotheses: e.g., the support for the hypothesis that the samples originate from a common source and support for the hypothesis that they originate from different sources."); Lyle W. Konigsberg & Susan R. Frankenberg, Bayes in Biological Anthropology, Am. J. Physical Anthropology 57:153–184 (2013); D.W. Steadman, B.J. Adams, L.W. Konigsberg Statistical Basis for Positive Identification in Forensic Anthropology, 311(2) Am. J. Physical Anthropology 15–26 (2006).	Rewrite the standard to encourage or at least permit the use of support-based statements instead of "personal identification" as a categorical conclusion. If the categorical conclusion is permitted, the standard should discuss how error probiolities can be estimated, and it must require their use if there is to be "scientific identification."	Reject: These are not closed populations, there is no known data for the frequencies of each skeletal/dental feature in global populations. At this time, probabilistic statements are often not possible.
15	4.2.1.1	T	"the goal of scientific identification methods is to systematically establish the consistency of antemortem and postmortem data in sufficeint detail to conclude that they are from the same individual to the reasonable exclusion of other possibilities." This quote frames the goal in a biased manner i.e., 'to conclude that they are from the same individual'	suggest using more objective language e.g., "to conclude whether they are or are not from the same individual'	Accept: Sentence has been modified.
16	4.2.1.1	T	"the goal of scientific identification methods is to systematically establish the consistency of antemortem and postmortem data in sufficient detail to conclude that they are from the same individual to the reasonable exclusion of other possibilities." This approach is not consistent with current best-practice recommendations for forensic scientists to use an evaluative framework whereby the practitioner provides comments about the likelihood of the observed consistency given that the antemortem and postmortem data originated from the same individual as compared to the likelihood of the observed consistency given that the antemortem and postmortem data original from different individuals.	suggest using an evaluative framework rather than providing a concludion about 'same' individual [or different see previous comment]	Reject: These are not closed populations, there is no known data for the frequencies of each skeletal/dental feature in global populations. At this time, probabilistic statements are often not possible.
2	4.2.1.2	T	"The antemortem and postmortem imaging shall correspond with sufficient detail to conclude that they are from the same individual with no unexplainable differences. There is no established minimum number of points of concordance or a threshold for the quality of consistencies necessary to support the findings." There must be SOME form of minimal finding necessary for an opinion, so the statement appears overbroad. The two factors also work together, as a small number of high quality consistencies might work to form a conclusion while a larger number of lower quality consistencies may not.	The standard as written leaves it all to the judgment of the expert to decide what mixture of quantity and quality (rarity of the detail) leads to the conclusion of identity. If that is the best the field can do given the current state of the research, the standard should provide for statements of error probabilities or, at the very least, a statement that these cannot be estimated on the basis of any established data.	Accept: The last paragraph of 4.2.1.2 has been modified for clarity.
17	4.2.1.2	T	"the practitioner shall perform a comparison, looking for consistencies and inconsistencies in the imaging,.." Is there a standardised method? Can that be described - eg. is ACE-V employed? If not is it a visual ('looking') inspection as determined by each individual practitioner? What is the 'comparison' technique or method that is used? For example, does the practitioner describe the features of the antemortem images before comparing to the postmortem images as recommended for other forms of visual comparison?	suggest providing additional information about the method of comparison.	Accept: Although some agencies have specific protocols for certain types of comparisons, there are no field-wide standardized protocols comparable to those in other disciplines. The conceptual idea of ACE-V is followed, but significant variation in the contexts where forensic anthropologists work (e.g., ME offices vs. sole practitioners) and the types of comparisons performed makes specification of details impractical. The first and second paragraph of 4.2.1.2 has added information about the method of comparison.
18	4.2.1.2	T	what is an "unexplainable difference"? Is there a standard definition? If not, could differences be 'unexplainable' to one practitioner, but 'explainable' to another?	suggest defining "unexplainable difference" in Section 3.	Accept with modification: The sentence has been modified for clarity.

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19	4.2.1.2	T	It is great to see the explicit acknowledgment that "There is no established minimum number of points of concordance or a threshold for the quality of consistencies necessary to support the findings." However, it may not be clear to the reader what that actually means.	Suggest elaborating further to make the implication of this point clear to the audience. e.g. "Therefore different practitioners may reach different conclusions about whether the ante and postmortem data is more likely to have originated from the same or different people given the same number of points of concordance."	Reject with modification: The document is not suggesting that analysts would come to a different conclusion based upon the same set of antemortem and postmortem data. The paragraph has been modified for clarity.
8	4.2.2.1	T	This subsection states "The data and records produced by forensic anthropology practitioners can contribute to a more comprehensive form of personal identification (via a preponderance of evidence) ... ." This language suggests (problematically) that (1) the anthropologist should judge what amounts to a "preponderance" and (2) evidence short of a preponderance does not contribute to an identification. On the contrary, (1) anthropologists should not be judging posterior probabilities, because they do not have access to the factfinder's prior probabilities, and (2) evidence that is insufficient to demonstrate p > 1/2 (with the anthropologist's personal prior) may nevertheless contribute to the factfinder's conclusion about the remains.	Replace the approach taken in this standard with a likelihood-ratio statements (even for subjective likelihoods), as has long been recommended generally in forensic science. E.g., Colin G.G. Aitken, Franco Taroni & Silvia Bozza, Statistics and the Evaluation of Evidence for Forensic Scientists (3d ed. 2021).	Reject with modification: Identification via a preponderance of evidence is the purview of the medicolegal authority and this has been clarified in the document.
20	4.2.2.2	T	What does the term 'congruence' mean? Does it mean identical biological profiles, or similar within some accepted boundary?	Suggest defining "congruence" in Section 3 to ensure consistent interpretation of the term.	Reject with modification: The term congruence has been removed and the sentence has been modified for clarity.
21	4.2.2.2	T	the use of the expression "an identification" is not consistent with current best practice recommendations to employ evaluative frameworks rather than definitive categorical conclusions of 'identification'	Within an evaluative framework all data (observations of similarity/dissimilarity) contribute to a final opinion about whether the observations are more likely given the ante and postmortem data come from the same or different people. This framework is not consistent with 'making identifications'. Suggest reframing to talk about the likelihood of same or different sources/people rather than 'identification'. The wording "support a personal identification" in 4.2.3.1 is more consistent with an evaluative framework.	Accept with modification: The sentence has been modified for clarity.
22	4.2.2.3	T	the use of the expression "an identification" is not consistent with current best practice recommendations to employ evaluative frameworks rather than definitive categorical conclusions of 'identification'	Within an evaluative framework all data (observations of similarity/dissimilarity) contribute to a final opinion about whether the observations are more likely given the ante and postmortem data come from the same or different people. This framework is not consistent with 'making identifications'. Suggest reframing to talk about the likelihood of same or different sources/people rather than 'identification'. The wording "support a personal identification" in 4.2.3.1 is more consistent with an evaluative framework.	Accept with modification: The sentence has been modified for clarity.
23	4.2.2.3	T	How are 'potentially individualizing features' defined? I appreciate the examples, but what is the inherent/common characteristics of a potentially individualizing feature? What makes one feature potentially individualising, but another not?	suggest defining "individualizing features" or "potentially individualizing features' in Section 3.	Reject with modification: A definition of potentially individualizing features has been added in Section 4.2.2.3 and the paragraph has been modified for clarification.
28	4.2.2.3		In 4.2.2.3, when stated "individualizing features, including but not limited to pathological conditions, anomalies and antemortem lesions (fractures, lytic lesions, etc.) may also be useful for identification. Based on congruence with antemortem records, individuals may be included or excluded from further consideration," is it referring to antemortem records without medical imaging? That is how I interpreted it, since at the end of this section gives an explicit reference to when AM medical imaging is present. If this is the right interpretation then just clarifying that antemortem records without medical imaging instead of simply antemortem records would fix it. Section 4.2.3.3, it is unclear what "individualizing features" are being referred to here. Does this include some of things already discussed (e.g. implants with serials numbers) or is it referring to additional things not already covered in the document?		Reject with Modification: The sentence has been changed to, "These features shall not be used in isolation as a basis for personal identification if no antemortem imaging is available." And a definition of potentially individualizing features has been added in Section 4.2.2.3 and the paragraph has been modified for clarification.

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24	4.2.2.4	T	the use of the expression "an identification" is not consistent with current best practice recommendations to employ evaluative frameworks rather than definitive categorical conclusions of 'identification'	Within an evaluative framework all data (observations of similarity/dissimilarity) contribute to a final opinion about whether the observations are more likely given the ante and postmortem data come from the same or different people. This framework is not consistent with 'making identifications'. Suggest reframing to talk about the likelihood of same or different sources/people rather than 'identification'. The wording "support a personal identification" in 4.2.3.1 is more consistent with an evaluative framework.	Reject with modification: Anthropology has not yet published any best practices. However, the sentence has been modified to remove "an identification."
25	4.2.3.1	T	"Information obtained from physical evidence and personal effects that are associated with human remains may contribute to the location of potential associations, or support a personal identification" Are there any limits or restrictions around when and how this information might be used. Issues of task [ir]irrelevant information may need to be considered, along with sequential unmasking techniques may require further consideration and description. e.g., knowing about the wallet found with the remains is highly likely to skew interpretations of the skeletal/anthropological data and so ideally should not be considered until after the anthropological data has been evaluated and documented.	If there are ordered procedures for considering different types of data, these should be described. if such ordered procedures are not in place, then there are potentially biasing factors that appear to require further consideration and management.	Reject with modification: Although some agencies have specific protocols for certain types of comparisons, there are no field-wide standardized protocols comparable to those in other disciplines. However a sentence has been added to indicate biases should be considered prior to analysis.
9	4.2.3.3	T	This subsection reads "4.2.3.3 Individualizing Features. Consideration of individualizing features should take into account the populational frequencies of particular skeletal features, if known. The temporal interval between the records shall also be considered and assessed in the context of the comparison." There is no guidance on how to take population frequencies and elapsed times into account.	Provide the critically needed guidance. There is a literature on using reference databases in foirensic anthropology (for both classical and Bayesian inference), and the standard could draw on it.	Reject: Reference database(s) in forensic anthropology for these types of populational frequencies unfortunately do not exist.
3	4.2.4	T	"The content of the report shall include...." Since this section stands alone (not as a subsection of another comment), it is vague as to what report "the report" is.	Perhaps a more detailed description would clarify, such as "a report containing findings of an anthropological examination shall include..."	Reject: Reporting is a commonly understood concept in the discipline.
4	4.2.4	T	The section on reporting states that "When scientific identification methods (see 4.2.1) are used, opinions and/or recommendations can include identification, exclusion, and inconclusive. When anthropological findings contributing to a personal identification (see 4.2.2) are used, opinions can include consistent with, inconsistent with, and inconclusive." This terminology is troublesome, and a report also should note the limitations and uncertainty associated with the categorical conclusions. "Consistent with" gives the reader almost no information (for example, having an orbital bone consistent with being a known individual, and it is consistent with being many other human individuals and many other animals). The standard gives no guide guidance on what makes a set of similarities and differences "inconclusive."	Several alternatives are available. A verbal scale for expressing subjective likelihood ratios could be used instead of these categories. If the standard does not require a likelihood-ratio approach, it should at least allow it (by stating in the scope section that the standard is limited to the traditional method of reporting and takes no position on alternatives that have been recommended elsewhere and that are not discussed in this standard). If the yes/no/don't know approach is used, the word "consistent" (for yes) should be replaced with "cannot be excluded." Of course, if estimates of error probabilities accompany the classifications (as they should), the choice of terms for the conclusions is less critical.	Reject: These terms are well understood and commonly used within the discipline and there is no frequency data currently that can be used to provide likelihood ratios.
27	4.2.4	T	The form of opinions permitted at 4.2.4 "opinions and/or recommendations can include identification, exclusion, and inconclusive" and "consistent with, inconsistent with, and inconclusive" is not in line with current best practice recommendations to use evaluative reporting and the terminology 'consistent with, inconsistent with" has also been criticised.	suggest employing evaluative frameworks rather than 'identification' and 'consistent' terminology both of which have been extensively criticised	Reject: Forensic anthropology does not yet have published best practices and other field's best practices may not be applicable. In the medicolegal field, these are the terms are commonly used and understood.
26	4.4.4	T	"The content of the report shall include a summary of the methods and compartive finding used to form an opinion regarding identification. "...The National Academy of Science 2009 report "Strengthening the forensic sciences..." suggests the following about forensic science reports : "sufficient content should be provided to allow the nonscientist reader to understand what has been done and permit informed, unbiased scrutiny of the conclusion" p 186	suggest replacing "The content of the report shall include a summary of the methods and compartive finding used to form an opinion regarding identification. " with "the content of the report shall contain sufficient information to allow the nonscientist reader to understand what has been done and permit informed, unbiased scrutiny of the conclusion"	Reject: The report is not written for the general public but rather for medicolegal/scientific audience.
10	Bibliography	T	The standard lacks a single reference to support its claims and recommendations.	Provide references and cite them in the body of the standard to support specific claims and recommendations.	Reject: Bibliographies are not included in Forensic Anthropology standards.