**Victor Vinnetou and Mbuyisa Makhubu facial comparison case, compiled by Dr T Houlton, School of Anatomical Sciences, University of the Witwatersrand**

(3 June 2016)

**Introduction**

There currently exists an accepted forensic methodology that is used to conduct facial comparisons. This standard methodology has thus been employed for this particular case. More details of this can be found on the FISWG (Facial Identification Scientific Working Group) website, www.fiswg.org. It should be noted that the strengths of conclusions reached in any case of photo comparison depends on the quality and type of evidence presented. The results of a photo comparison should always be used in conjunction with other evidence, such as DNA, to make a definite identification.

**Images supplied**

---

**SUBJECT IMAGES (Victor Vinnetou)**

1 2

**TARGET IMAGES (Mbuyisa Makhubu)**

1 2 3 4

*Figure 1: Subject and target image references.*
List of variables to consider

- Age difference between the subject and target images
- Resolution quality – most images are of low resolution
- Differences in lighting (angle and intensity, influence of brightness and contrast)
- Differences in the positioning of the head
- Limited sample size of both subject and target images
- Target image 4 demonstrates a powerful facial expression, which can distort the recognisability of facial features when at rest.

Face/head outline

Similarities:

- Rhomboid to elliptical facial shape

Hairline pattern

Similarities and differences:

- Subject image is influenced by signs of age related androgenic alopecia, causing the hairline to recede from the temples. Centrally located on the forehead hairline is evidence of a widow’s peak that is well pronounced in the subject image and subtle in the target images – thickness of hair growth and the effects of androgenic alopecia are variables that will, however, influence this feature.

Forehead, brows and eyes

Similarities:

- High and relatively wide forehead.
- Pronounced brow ridges and glabella, which creates a transverse nasal depression.
- Relatively sparse and subtle eyebrows that form a triangular to laterally arched shape.
- Prominent and wide set eyes with a horizontally aligned palpebral slit and central eyelid fold.
- Eyes are wide, presenting a distinct almond shape.

Cheeks

Similarities:

- Prominent anteriorly orientated cheekbones.

Nose

Similarities:

- Evident nasion depression.
- Relatively wide nose with a rounded nasal tip, alae and nostrils.

Differences:

- Nasal bridge appears more pronounced in the target images – could be attributed to the angle, lighting and sharpness of images.
- The nostrils of the subject distinctly flare anteriorly and more prominently laterally, which is not consistently identifiable in the target images – variation in the positioning of the head (Figure 1, Target images 1 and 2) and influences of facial expression (Figure 1, Target image 4) can affect this feature.

Mouth

Similarities:

- Lower lip is thicker and relatively more pronounced than the upper lip.
- Lips present a clearly defined vermilion border.
- Upper lip presents a relatively flattened cupid’s bow and the lower lip is subtly rounded.
- Evident prognathism with a prominence of the modioli.

Differences:
- Evidence of distinct nasolabial creases that appear to stretch from the alae down to the modioli, where it appears most pronounced, are evident in the subject images but comparatively subtle in the target images – this can be influenced by age.

Similarities and differences:
- Visible dentition of the target presents a slight gap between the right central incisor and right lateral incisor, which can to an extent be vaguely identified in the dentition presented in the subject image. The subject appears to present a possible diastema, which is not evident in the target image. Dental features are however not conclusive due to the degree of pixilation and contrast in the given subject image, which can create artefact distortions. It is also impossible to rule out the possibility of dental loss or damage to the left central incisor, which could create the illusion of a diastema considering the angle the head is positioned in.

Chin

Similarities:
- The chin is rounded and prominent in form.
- The jaw line appears relatively angular.

Differences:
- Distinct mental crease evident in the subject images but is comparatively subtle in the target images – this can be influenced by age.

Ears

Similarities:
- Ears are moderately sized, demonstrating moderate protrusion.
- The helical structure offers a slight wave in its shape, with an evident notch in the helical structure marking the mid-lateral portion of the ear.
- Ears present small lobes.

Skin texture

Similarities and differences:
- A thin hairline scar diagonally crosses the right medial portion of the subject eyebrow. The target images are too low in resolution to determine this feature and it could have easily been acquired following the time the target images were captured.
- Evidence of skin demarcations, likely moles, presents at the right superior wall of the subject’s nasal bridge and is less noticeably evident influencing the subject’s superior portions of the cheeks (especially those influencing the right cheek). These are not possible to clearly identify in the target images due to the effects of image resolution. Such blemishes can also develop in later life.

Facial proportions

A general visual analysis demonstrating the proportional relationship of facial features between the subject and target images is available in Figures 2 and 3. Demonstrated is a general consistency in the scale and orientation of facial features.
Figure 2: A comparison of horizontal facial proportions between subject (1 and 6) and target (2-5) images.
Figure 3: A comparison of vertical facial proportions between subject (1 and 6*) and target (2-5*) images. *Face demonstrates a distinct angle and will therefore interfere with the total alignment of features.
Conclusions

Facial comparison is notably a form of intelligence/information that should not be used as a final means to confirm or deny the identity of a given subject in the legal justice system. Doppelgangers (facial doubles) or the marked changes in facial appearance in a single individual from a change in lifestyle or fashion can occur.

The available subject and target images offer a limited resource to conduct a thorough comparative facial analysis. Ideally images of a higher resolution, photographed in neutral lighting, which presents the subject and target in multiple similar angles to one another with a neutral facial expression would be desired. Another inevitable problem with this particular case is the apparent age difference between the subject and target. With the given evidence however, a generally consistent pattern of similarities in the morphology, size and inter-relationships of facial features can be identified. Described differences could be attributed to the effects of aging and the environmental conditions the photographs were taken in.

The current evidence consequently offers no means of confirming the subject’s identity as that of the target, but it also offers no clear grounds to dismiss the subject. The report thus lends moderate support to the subject named Victor Vinnetou being Mbuyisa Makhubu.