

## Publication

## On the Epistemic Status of Prenatal Ultrasound: Are Ultrasound Scans Photographic Pictures?

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Medical imaging is predominantly a visual field. In this context, prenatal ultrasound images assume intense social, ethical, and psychological significance by virtue of the subject they represent: the fetus. This feature, along with the sophistication introduced by three-dimensional (3D) ultrasound imaging that allows improved visualization of the fetus, has contributed to the common impression that prenatal ultrasound scans are like photographs of the fetus. In this article we discuss the consistency of such a comparison. First, we investigate the epistemic role of both analogic and digital photographic images as visual information-providing representations holding a high degree of objectivity. Second, we examine the structure and process of production of ultrasound scans and argue that a comparison between two-dimensional (2D) ultrasound and photography is justified. This is in contrast to 3D ultrasound images that, due to the intensive mathematical processing involved in their production, present some structural issues that obfuscate their ontological and epistemic status.

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