The economics of art forgery

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The Fine Art Experts Institute claimed some years ago that over 50 percent of art is forged or misattributed. While this information might not impact the aesthetic perception of an artwork, it might have a role in the formation of its economic value, due to the perceived risk of buying a non-authentic piece (Artnet News 2014). This fraud is made by a forger to deceive a potential buyer by creating a false origin of the artwork to increase its economic value to the detriment of the buyer.

Among art crimes, fake and forgery indeed play a central role. Interest in the topic is wide, ranging from sociology and criminology (e.g., Oosterman & Yates 2021, Hufnagel & Chappell 2019) to law (e.g., Chappell & Hufnagel 2012, Finchman 2017), from art history (e.g., Jones 1992, Lenain 2011) to the study of technical methods to identify forgeries (e.g., Moran et al. 2016, Manfriani et al. 2022). Also, economics studied this topic (e.g., Frey 2000, Mossetto 1993, Bocart & Oosterlinck 2011, Scorcu et al. 2021), mostly with an empirical approach to measuring the impact on the art market of the discovery of fakes. What is analyzed only by a limited number of studies (e.g., Lazzaro et al. 2004) is how incentives work in the creation and the sale of forged artworks, an analysis needed to be able to suggest possible policy interventions to restrain this phenomenon.

The main goal of this paper is then to identify which conditions are more conducive to art forgery. This could help in designing policies that could curb the forgery phenomenon.

To do so, we set a model with two strategic players, a (potential) forger, and the buyer. We study the incentive to create a forged artwork and, possibly, make it circulate in the market. The role of other agents, such as the expert–who can help the buyer identify a forgery–and the dealer–who could hire an artist to paint a fake–is also considered. We also allow the buyer to discover the forgery with a certain probability, which can capture repression effort, detection ability due to scientific advancements, and the copied artist being dead or alive. Detection of a forgery leads to a loss for both the forger (e.g., a fine or other type of punishment) and the buyer (e.g., a reputational loss); the former is a possible policy tool to be studied, together with any intervention that could increase the probability of detection and/or reduce the cost to call an expert to verify the authenticity upon purchase.

We identify the conditions that define 3 types of equilibrium. In the separating equilibrium, the forger will not produce fake artworks, so no forgeries circulate. In the pooling equilibrium, the forger will circulate the artwork he is endowed with, which will be a forgery if he is endowed with a non-authentic piece, and the buyer will buy the piece if she does not refer to an expert at first. Otherwise, the artwork will not circulate (being it fake or not). Finally, in a semi-separating equilibrium, we also consider the probability that the buyer will refer to an expert and the probability that the forger circulates a forged artwork when endowed with a non-authentic piece. We identify the thresholds which make the agents indifferent between letting the artwork circulate or not and verifying the authenticity or not.

This setting makes it possible for us to derive the probabilities that artworks are original, discovered, and undiscovered fakes. We can also speculate on how different artists/artworks map into our set of parameters to assess in which situation committing and discovering forgery is more likely. Finally, we study what policy interventions can reduce forgery.

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