**INTRODUCTION**

Imagine you are heading to Christie's to bid on a Monet oil painting, which should sell for around $5 million based on its characteristics. You're unaware of that, and so when you learn that a very similar oil painting by Van Gogh (a peer of Monet) fetched $10 million just the week before, $8 or $9 million for the Monet seems like a bargain – even if that reflects more of the Van Gogh than the Monet.

You’ve been a victim of the *anchoring effect* - a well-known cognitive bias in which the first number you hear (the “anchor”) can shape your perception of what is normal. This was demonstrated in a famous clinical experiment by Tversky & Kahneman[[1]](#footnote-1), where participants were given only 5 seconds to calculate the product of numbers 1 through 8, shown either in increasing or decreasing order. It was found those who saw the lower numbers first gave a median estimate of 512, whereas those who saw higher numbers first gave a median estimate of 2250 – a very large difference due to first impressions. Other landmark studies in anchoring include

This cognitive bias appears in the fine art auction market, which in 2014 enjoyed a sales volume of £5.1 billion (approximately $7.35 billion in today’s exchange rate)[[2]](#footnote-2) [[3]](#footnote-3).

The primary work on anchoring in art auctions is conducted by Beggs & Graddy (2009), who study this bias across multiple sales of Impressionist and Contemporary art pieces[[4]](#footnote-4). The main idea is that past sale(s) of a painting should serve to bias its current sale, and the authors do indeed find evidence of these anchoring effects (particularly for Impressionist art). However, as they note, it is very difficult to find two identifiable sales of the same art piece, which is required for their regression model. Hence, Beggs & Graddy use only 1-2% of their original data on all painting sales – but do find a strong anchoring effect with their carefully constructed regression model.

This research generalizes the model of Beggs & Graddy to capture anchoring effects across related art pieces (substitutes).

This thesis proceeds as follows.

I present a new dataset of recent auction sales (2006-2015) of assorted art pieces constructed for this purpose, and discuss measures of hedonic similarity between non-identical works. I replicate the past research of Beggs & Graddy by running their original anchoring regressions on their original data and my new data. Next, I run my new cross-anchoring regressions on their original data and my new data. I find that \_\_\_\_\_. Finally, I discuss how these quantitative results match up against observational evidence, namely conversations with art experts and notes from live auctions.

1. Tversky, Amos, and Daniel Kahneman. "Availability: A heuristic for judging frequency and probability." *Cognitive psychology* 5.2 (1973): 207-232. [↑](#footnote-ref-1)
2. http://www.christies.com/about/press-center/releases/pressrelease.aspx?pressreleaseid=7712 [↑](#footnote-ref-2)
3. <http://www.xe.com/currencyconverter/convert/?From=GBP&To=USD> accessed 2/20/2015 [↑](#footnote-ref-3)
4. Beggs, Alan, and Kathryn Graddy. "Anchoring effects: Evidence from art auctions." *The American Economic Review* 99.3 (2009): 1027-1039. [↑](#footnote-ref-4)