

The inevitable subjective nature of conservation: Psychological insights on the process of decision making

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ABSTRACT

Taking a psychology perspective, the aim of this paper is to reflect upon the cognitive biases conservators are exposed to in the process of decision making and how those decisions impact an artwork's biography. Cognitive biases, such as 'defaults', 'the asymmetric dominance effect', and 'the anchoring effect' are recurrent in areas of decision making, as, for instance, in medical practice. By comparing them with conservation practice, it was possible to conclude that these effects may also influence conservators. 'Defaults' and 'the asymmetric dominance effect' suggest that the framing and number of options influence the final choice. Moreover, 'the anchoring effect' implies that present decisions influence future decisions, thus having a direct impact on the artwork's biography. As a conclusion, several suggestions for avoiding cognitive biases in conservation are proposed.

INTRODUCTION

Although the Great Ormond Street Hospital for Children (GOSH), London, England, was the largest paediatric intensive care unit in the United Kingdom in the mid-1990s, it had a very high mortality rate for surgery in congenital heart disease (Sower et al. 2008). In studies carried out by Sower, a high risk factor was identified in the handover process from surgery to the intensive care unit. As there was no option but to transfer the patient, what could be done to reduce this danger? The solution was unexpected. Martin Elliot (MD, FRCS) recalls: 'Formula One came on TV just as we were sitting down ... at the end of surgery, and we just realised that the pit stop where they changed tyres and topped up the fuel was pretty well identical in concept to what we do in handover – so we phoned them up' (Sower et al. 2008, 2). With this surprising cooperation, new protocols were implemented, reducing the error rates from 30 per cent to 10 per cent, resulting in visible patient benefits.

The example of GOSH and its cooperation with Formula One is an example of a good application of transferable knowledge. In conservation practice, the existence of moral dilemmas and occurrence of errors is also common (van de Vall 2005, Marincola and Maisey 2011); however, although some parallels with medical practice¹ have already been made, conservators still have not managed to incorporate them into their theory and practice.

With the acknowledgement of the limits of 'scientific conservation' (Munõz-Viñas 2005, 65), and a growing acceptance of subjectivity in conservation practice, the importance of reflecting upon conservators' roles and processes has been enhanced. In 1997, the philosopher Renée van de Vall approached the inevitability of 'tragic choices', observing that the preservation of a given value jeopardises the preservation of others (van de Vall 2005). In response to conservation's moral dilemmas, van de Vall (2005) suggests that, instead of general, universal and unshakable principles, conservators should adopt a subjective perspective, providing solutions through a casuistic approach.

Regarding installation art in particular, Vivian van Saaze compelled conservators to review the 'long-accepted certainties' in conservation theory (van Saaze 2009, 182). One of the highlights of this re-examination was the urge to accommodate the transient nature of installations, understanding

and accepting that such artworks do not exist in a single state, but rather undertake a trajectory, which is not a straight line, but a route full of variations and options (van Saaze 2009, van de Vall et al. 2011). Although the concept of ‘artwork trajectories/biographies’ is particularly relevant in the case of complex contemporary artworks, it is also important in the conservation of self-contained artworks, such as paintings or sculptures. The choice of removing a varnish from a painting is subjective and will influence its trajectory, not only in terms of appreciation, but also in terms of future interventions.

Due to the trajectories artworks undertake, decision making in conservation has been a topic of interest for researchers and institutions.² Some questions still remain: Are there ways of recognising the errors we are prone to commit? How can we optimise conservation processes, without losing sight of their ethical problems?

These questions are truly complex; however, in the same way as Formula One helped GOSH solve its problems, perhaps some answers for conservators can appear from unexpected sources. The co-existence of the need for both an optimised and ethical approach also emerges in other areas. In medical practice, for example, physicians often struggle with difficult dilemmas that have a direct impact on the patient’s biography: to operate or not to operate, to do chemotherapy once again, or let the patient die peacefully at home. Due to these difficult dilemmas, they have felt the need to understand the cognitive biases that emerge in medical practice. D.A. Redelmeier and E. Shafir (1995, 305) explain that cognitive biases ‘appear when people have difficulty deciding between conflicting alternatives, face situations of substantial uncertainty, or consider outcomes that have long-term consequences’. If the previous comparison between medical and conservation practices in terms of ethical problems is considered, some synergies could also exist regarding cognitive biases in both areas. This exploratory study considers viewpoints from both psychology and medical practice, the first in terms of art appreciation and its consequences for conservation, and the latter concerning primarily some studies about its cognitive biases. By dialoguing with these two disciplines, the authors aim to provide some insights about the cognitive biases involved in conservation decisions.

YOU SEE WITH YOUR MIND, AND NOT WITH YOUR EYES

When a conservator faces an artwork for the first time, the interaction with the object, even if not physical, will provide an individual experience. This experience will inevitably influence future decisions and be part of the conservator’s cognitive biases.

Processes of sensorial perception and transmission are physiologically similar from individual to individual. Impressions are not limited to sensorial aspects, but also involve observers’ ‘cognitive background, which gives such experiences meaning’ (Solso 1994, 46). An observer’s perception of an artwork is not limited to visual sensorial stimuli, but also includes spatial, auditory, olfactory or even tactile, gustatory and kinaesthetic experiences. Considering the nature of conservation practice,

current psychological models of visual stimuli processing are worth considering in this field.

Cognitive psychologist R.L. Solso (1994) proposed an interactive model for the cognitive processes involved in the visual appreciation of art, which focus on four main cognitive processes:

- sensation, related to the visual information, which is detected by the eye and then transduced into neural impulses
- attention, which addresses the focus on the object and its different characteristics
- perception, which is associated with recognition of shapes and forms
- comprehension, which is connected to the semantic interpretations of the visual signs.

Although the processes conceptualised by this model can be generalised, according to Solso (1994), each individual has a unique mental structure. The cognitive experience of a person faced with a given artwork is necessarily different from that of any other person and, similarly, conservators with different backgrounds and experiences necessarily have different memories and will process the same visual stimuli in different ways. The relative character of the apprehension of artwork allows for a multiplicity of perspectives about the same piece.

Each individual's attention tendencies (e.g. focus on a specific characteristic of a given object instead of another) will condition the amount and character of information that is perceived (Solso 1994) and that, consequently, will affect decision making. One's personal characteristics (e.g. personality, previous experiences and emotions) will also affect the way the work is experienced and, thus, documented, described, restored and exhibited. According to the psychologist Ellen Winner (1985), some studies inferred that people of similar background also tend to have the same attention tendencies.

It is necessary to reflect upon the consequences of these situations. Are conservators and curators imposing a particular perspective on visitors? Even if conservators are increasingly aware of their own subjectivity and their inevitable intervention on an artwork's trajectory, they are still struggling with the adoption of strategies to control that subjectivity. In the case of installation art, for example, each time the artwork is reinstalled for an exhibition, the conservator's interpretation is always translated into the artwork, even if clear instructions from the artist are followed (Marçal et al. 2013). In this case, conservators are indeed shaping the discourse addressed to viewers. According to Muñoz-Viñas (2005, 107), and considering self-contained objects, even the notion of damage, and its qualitative evaluation, is subjective in nature. Risk assessment, diagnosis and consequent interventions are subjective 'acts of taste'. These 'acts of taste' influence the notion that the conservator has about the object's 'true nature', and the decisions he/she will make in order to 're-create that condition in a given way' (Muñoz-Viñas 2005, 108). Conservation discourses affect not only non-specialists, but also other professionals.

Moreover, the stimuli provided by their representations (when the restored object is exhibited, for example) may even influence future decisions.

YOU ARE THE DECISIONS YOU MAKE

Education and background have important consequences for an individual's cognitive processes of appreciation. Studies have shown that cognitive and social processes, as well as contexts leading to decisions, may also have long-term effects (Ariely 2010). 'Defaults', the 'asymmetric dominance effect' and the 'anchoring effect' (or 'self-herding effect') are examples of how context can change the decision-making path. The framing of a particular choice completely influences the decisional outcome, and recurrent decisions are also part of that context (Ariely 2010).³

'Defaults' and 'asymmetric dominance effect'

Behavioural economist Daniel Ariely defines 'defaults' as contexts that may influence decisional preferences. Depending on the wording, framing and social context of the choice, which may include subjective meaning as well as perceived social norms, defaults encourage certain choices. This effect is mainly related to behavioural inertia (Ariely 2010). Conservators, as all other human beings confronted with a choice, are prone to make the easier decision. Moreover, the path of least resistance is especially likely to be chosen when decisions are more complex.

Redelmeier and Shafir (1995) undertook a case study with two groups of family physicians. They presented a scenario where physicians decided to refer a patient to orthopaedics for hip replacement surgery after a diagnosis of osteoarthritis and several failed treatments. However, after the patient agreed with this plan, both groups of physicians realised that there were other treatments that the patient had not tried. For the first group, only one different treatment was available, while the second group identified two different treatments. Afterwards, both groups were given the choice between referring the patient to orthopaedics and starting the new treatment(s) and referring the patient to orthopaedics without starting a new treatment. The authors observed that the majority (53 per cent in the first group and 72 per cent in the second) chose not to start a new treatment. It was thus possible to infer that, after making a decision, physicians tend to have difficulty changing it. Also, with more choices, the complexity tends to overwhelm the decision maker, and the default option (no treatment) becomes even more predominant.

This case may also imply the occurrence of the 'asymmetric dominance effect'. Ariely (2010) has shown that, for a given problem, when more possibilities are presented, people are more susceptible to choose incorrectly. With more options, even if they are mostly redundant or inadequate, noise increases. Psychologically, people tend to become confused and doubt themselves due to this overload of options. In this situation, choices truly become complex, as people tend to feel even more unsatisfied with the outcome.

Regarding conservation practice, there are some examples where 'defaults' and the 'asymmetric dominance effect' have a clear influence. For example,

even when wax-resin linings were already considered an undesirable procedure, some conservators continued using them just because other options were not being considered. And although this is true for the conservation of self-contained artworks, it becomes even more dramatic when considering artworks with a variable nature, such as installations or time-based media,⁴ as these artworks are frequently recreated, changing according to the context of exhibition and the decisions of the team responsible for reinstalling them.

With complex decisions like those in medical practice and conservation, the occurrence of cognitive biases is indeed inevitable. Considering the long-lasting effect that decisions have, not only on the object itself, but also on the decision paths taken by each particular conservator, this inevitability becomes truly problematic.

The 'anchoring effect' and the long-lasting effect of decisions

According to Ariely, the decisions people make have a long-term effect on their memory. As people do not remember the context of their decisions, when they have a long line of similar decisions, their tendency is to stop thinking about the reason behind a particular choice. That decision becomes the reference point for future similar decisions ('the anchoring effect') (Ariely 2010).

In conservation, several recurrent procedures that are now discouraged are still being implemented due to this 'anchoring effect'. Examples such as lining with wax-resin, or varnishing paintings that were intended to be unvarnished (as in the case of cubist paintings), can be seen as a manifestation of this effect.

Finding recurrent conservation behaviours as a result of 'the anchoring effect' is relatively common. However, other factors may influence conservators' decisions. Usually, conservators struggle not only with ethical dilemmas, but also with a demand for efficiency of time and resources. Even if conservators wanted to try other solutions after making their decisions, budget and time constraints do not allow it. Perhaps that is why conservators and other professionals usually perform procedures that are well known to them, and tend to dismiss others that would imply a first step of experimentation and training. Moreover, some conservation procedures are undertaken recurrently due to historical and cultural issues that cannot be disregarded. This is the case with *tratteggio*, which has strong cultural roots, for example, in Italy, but, with few exceptions, has almost no impact in English-speaking countries (Muir 2009).

RECOGNISE YOURSELF AS A THINKING BEING

The cognitive biases of conservators during decision making are a result of their human nature. Physicians and bioethicists have been fighting the same battle, and they have found that the application of general ethical principles, such as 'beneficence' or 'non-maleficence', lacked applicability in a clinical context as 'being too insensitive to the complexities and tensions inherent to morality' (Viens and Singer 2008, 4). They resorted to social sciences and found in casuistry a good complementary method for decision

making. Viens and Singer (2008) define casuistry as an approach ‘where clinicians use case-based reasoning to identify the morally relevant features of a situation and relate it to the specific circumstances of a previous case and its resolution’. The authors add that this approach is very useful for clinicians, as it provides context for ‘relevant ethical issues in terms of how they relate to clinical practice’ (Viens and Singer 2008, 3–4).

In conservation, principles such as ‘minimum intervention’ and ‘reversibility’, while being relative and subjective (Muñoz-Viñas 2005), promote an ethical foundation from which conservators make and justify decisions. However, as these principles are often unfeasible when dealing with dilemmas, van de Vall (2005) proposed casuistry as an alternative method. Although general principles and casuistry could complement each other, due to all the factors exposed above, from the occurrence of cognitive biases to the inevitable subjective nature of conservation, it becomes mandatory for conservators to state their personal view of the decision-making process. This approach, defined as reflexivity by ethnographers and as meta-cognition by psychologists, and discussed in the field of conservation by van Saaze (2009), invites conservators to reflect upon the consequences of their interactions with the artwork and the context, and upon how that might have changed the research.

The combination of general ethical principles, casuistry and reflexivity would provide conservators with invaluable tools for their practice as they would be aware of their biases and could act accordingly by defining the reasons behind a decision, and by explaining the application of the general principles as well as the paradigmatic cases under study. The biographies of artworks could also be translated into a decisional history (or even trajectory), where the difficulties, successes and errors were transmitted from conservator to conservator, thus avoiding certain missteps.

The concept of an artwork’s biography is of the utmost importance for conservation ethics. The empirical study of the impact conservators have on artwork trajectories could, however, clarify the extent and relevance of their role. Factors affecting the relationship between the social individual and the artwork, including conservation decisions, need to be investigated, documented and shared, as they will be pivotal to the decision-making process.

A better understanding of the decision biases may result in better solutions and optimised procedures. Reflexivity, casuistry and a body of shared knowledge may ground conservation practices in social networks, where procedures are scrutinised with better judgment. An online, inter-institutional and transparent network, with a rich database of paradigmatic cases, could allow for decision paths to be documented and shared. The INCCA database⁵ can be considered one of those social networks. However, as it is focused on the conservation of contemporary art, it is not accessible to every conservator.

Critical thinking in conservation can be achieved not only by complete transdisciplinary professional training, but also by carefully examining artwork biographies. A social network that would not only serve as a database, but would also be a platform for conservators to share their

testimonies, exploring not only the successes, but also the mistakes of conservation practice, could be highly beneficial.

It is only by recognising the decision paths conservators tend to take, the mistakes they are compelled to repeat and the biases they have from the first moment of interaction with the artwork that some errors can stop being recurrent, becoming traces of the past.

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NOTES

- ¹ Several authors refer to the relationship between medical and conservation practices. See Muñoz-Viñas (2005), Marincola and Maisey (2011), and J. Ashley-Smith, *Risk assessment for object conservation* (Oxford, Butterworth-Heinemann, 1999).
- ² Several meetings, such as *Modern Art: Who Cares?* (1997), and *Contemporary Art: Who Cares?* (2010), focused in particular on this theme.
- ³ There is no consensus regarding the terminology for these psychological effects. For the sake of coherence, the terms used in this paper originate from Ariely 2010.
- ⁴ Several cases where conservation strategies had to be reframed due to the vicissitudes of complex contemporary artworks are described in the relevant literature, such as I.J. Hummelen and D. Sillé, eds., *Modern Art: Who Cares?* (Maastricht, Foundation for the Conservation of Modern Art and the Netherlands Institute for Cultural Heritage, 2005).
- ⁵ The INCCA (International Network for the Conservation of Contemporary Art) database allows 'access to ... unpublished information (by its members). The database contains metadata records (like library cards) that describe all types and formats of documents' (in INCCA 2013. What is the INCCA database? <http://www.incca.org/what-is-the-incca-database>, accessed 10 November 2013).

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