

# Northumbria Research Link

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## Introduction

### Inferring who owns an object

Previous research has shown that both adults and children use a first possession heuristic to infer ownership (Friedman & Neary, 2007)

### Inferring whether objects are owned

People are quick to judge whether objects are owned, the question is how?

### Proposal

Historical reasoning and object kind rule (Friedman, Neary & Defeyter, in press)

**Aim: To empirically test this proposal**

## Method

22 participants (mean age= 20 years; age range 18 to 26 years) were presented with a set of 90 computer images of natural kinds and artifacts in settings that were incongruent, congruent or neutral to that object. Participants were asked: **Is this object owned?** The time allowed for responding to each test item was 2 seconds per image, when this time elapsed the next image appeared on screen. SOA was 1 second.

Fig 1. Natural Kind  
INCONGRUENT



Fig 2. Natural Kind  
CONGRUENT



Fig 3. Natural  
Kind NEUTRAL



Fig 4. Artifact  
INCONGRUENT



Fig 5. Artifact  
CONGRUENT



Fig 6. Artifact  
NEUTRAL



## Results

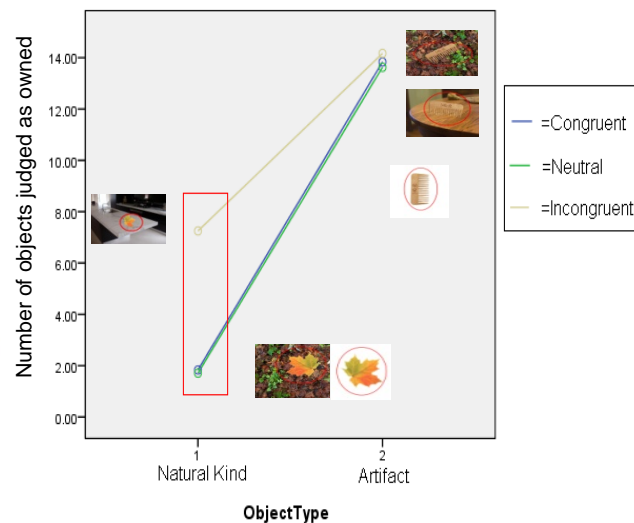
There was a significant main effect of object type on the number of objects judged as owned, Wilks' Lambda = 0.072,  $F(1,23) = 296.599$ ,  $p = .001$ ; artifacts ( $M=13.9$ ) were judged to be owned significantly more than natural kinds ( $M = 3.6$ ). There was also a significant main effect of context on the number of objects judged as owned, Wilks' Lambda = .408,  $F(2,22) = 11.521$ ,  $p = .001$ ;

Table 1= Means (s.d.) for objects judged as owned under different contexts

	Natural Kind	Artifact	Overall
Congruent	1.833 (1.1.686)	13.833 (2.22)	7.833
Neutral	1.708 (2.274)	13.625 (2.429)	7.667
Incongruent	7.25 (4.857)	14.167 (2.14)	10.709
Overall	3.587	13.875	

There was a significant interaction effect between the type of object and the context an object was presented in on the number of objects judged as owned, Wilks' Lambda = .489,  $F(2,22) = 11.475$ ,  $p = .001$ ; This interaction was driven by the congruent natural condition and differences of context on natural kind objects.

Effect of context  
(congruent/incongruent/neutral)  
on type of  
object (natural kind/artifact)



## Discussion

The results suggest that people are more likely to judge artifacts as owned and natural kinds as not-owned. However, this basic kind account does not seem to account for all situations, (a beautiful leaf on a kitchen table). The object kind account may operate in conjunction with attempts to reconstruct the history of an object in relation to people.

The default assumption for natural kinds may be that they are not owned, but people may attempt to infer the objects history to overturn this default. The default should be overturned when it seems that someone previously possessed that object and has not purposely discarded it but rather likely intends to use it again.