

INTRODUCTION

Plato was a well-known philosopher of ancient Greece who studied under Socrates and went on to influence much of western philosophy and dialogue millennia after his death (Xuan, 2025).

Plato is well known for the theory of forms, as well as being the teacher of the doctrines that would go on to become Platonism which is defined as “any philosophy that derives its ultimate inspiration from Plato” (Blumenthal et al., 1998). It is rooted in the belief that there exists unchanging and eternal realities, which are considered to be the causes of the existence and meaning of anything and everything within our observable universe.

PLATO’S CONTRIBUTION TO SCIENCE

Plato’s main interests of study were ethics and epistemology. He was a major user of the Socratic method and is considered to be one of the central figures in western philosophy.

Plato founded his own school known as ‘The Academy’ (Meinwald, 2025) which lasted around 500 years until 84B.C, before being revived in 410AD as a centre for the idea of “Neoplatonism” (Harris, 2019).



Plato is also well known for his work on the “Theory of forms”. The theory puts forth the concept that there is an innate idea of what a thing is. For example, the ‘chairness’ of a chair is derived from the presence of four legs and a place to sit.

According to Plato, what we see in the world isn’t a true reality, but rather a collection of imperfect copies of unchanging forms that exist in a non-physical “Realm of Forms”.

REFERENCES

- Britannica (2025, September 19).** *Academy*. Britannica. <https://www.britannica.com/topic/Academy-ancient-academy-Athens-Greece>
- Blumenthal, H. J. (2025, October 16).** *Platonism*. Britannica. <https://www.britannica.com/topic/Platonism>
- Bui Xuan, D. (2025).** Plato’s Philosophy and Its Influence on Western Philosophy Today. *Futurity Philosophy*, 4(1), 86–110. [rg/10.57125/FP.2025.03.30.06](https://doi.org/10.57125/FP.2025.03.30.06)
- Chauhan, S. S. (2023).** *Know about “Aristotle”* (Unabridged. ed.). Saurabh Singh Chauhan.
- Harris, R. B. (1976).** *The Significance of Neoplatonism*. State University of New York Press.
- Kiran, S., Ntourou, K., & Eubank, M. (2007).** The effect of typicality on online category verification of inanimate category exemplars in aphasia. *Aphasiology*, 21(9), 844–866. [10.1080/02687030600743564](https://doi.org/10.1080/02687030600743564)
- Meinwald, C. C. (2025, September 29).** *Plato*. Britannica. <https://www.britannica.com/biography/Plato>
- Rácz, P., & Lukács, Á. (2025).** The effect of age, education, and vocabulary size on the speed of word recognition across the lifespan. *Brain Research*, 1866, 149891. [10.1016/j.brainres.2025.149891](https://doi.org/10.1016/j.brainres.2025.149891)
- Ratcliffe, R., Thapar, A., Smith, P. L., & McKoon, G. (2005).** Aging and response times: a comparison of sequential sampling models. *Measuring the mind : speed, control, and age* (1st ed., pp. 3–20). Oxford University Press. [10.1093/acprof:oso/9780198566427.001.0001](https://doi.org/10.1093/acprof:oso/9780198566427.001.0001)
- Sharpe, B. T., Trotter, M. G., & Hale, B. J. (2025).** Sustaining student concentration: the effectiveness of micro-breaks in a classroom setting. *Frontiers in Psychology*, 16, 1664–1078. [10.3389/fpsyg.2025.1589411](https://doi.org/10.3389/fpsyg.2025.1589411)

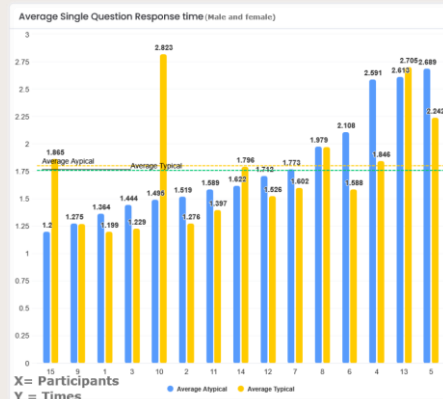
STATEMENT OF HYPOTHESIS

Individuals will identify objects or entities related to a category at a faster rate if they are typical examples of this category as opposed to atypical examples. This strengthens the argument that human consciousness follows the theory of Plato’s forms

TASK TO TEST

The task focuses on the typical/atypical effect that relates to Plato’s theory of forms. The typicality effect is a phenomenon in which typical items are more easily judged compared to the atypical items in the same category (Kiran et al., 2007). As previously identified, Plato’s theory suggests that humans have predisposed notions or images of absolute forms.

The study will look at typical and atypical entities and determine if it easier to identify typical entities.



This will be judged through a Sentence Verification Task (SVT). An SVT is where participants are presented with a set of True or False questions, to which their responses are timed. Questions were based on three categories - fish, plants and drinks. Typical questions directly follow Plato’s abstract theory of forms. For example, a goldfish exhibits typical elements of “fishness” by having fins and a tail. We will be able to collect data on whether the atypical sentence takes longer to answer therefore clearly stating the hypothesis.

RESULTS

Evidence from the raw data table showed that the average person took 1.7561 seconds to answer typical questions, whereas the average person took 1.7981 seconds to answer atypical questions, identifying a 0.042 second difference.

Recorded times were captured in real-time with no latency via the app which only allowed the test do be conducted on a fully loaded webpage to prevent discrepancies in data capture.

One participant in particular had an outlier for one particular response. Participant 10 took 2.823 seconds on average. This could’ve been caused by many factors which have been discussed below.

DISCUSSION

Findings from Rácz & Lukács (2025) identified that simple statement recognition for 18–21-year-olds takes about 1.71 seconds. Additionally, Ratcliffe et al (2005) Determined that reasoning occurred within a 82-102 millisecond window once a task was comprehended. Combining these figures with this experiment data, it can be argued It takes roughly 45.6% longer for the human brain to recognise entities that are atypical of the category that they are associated with.

However, there are differences in the datasets that need to be acknowledged. Rácz & Lukács (2025), while their sample had a subset with a comparable age range and similar Male to female ratio. Their sample was much larger at 467 participants. Their test time was a little longer, sitting at 4-6 minutes but still within the realms of optimal concentration (Sharpe et al., 2025). Data collection method had a margin for inaccuracy at around 100ms, whereas this experiment had no latency issues. Specific test environments in Rácz & Lukács (2025) were also unquantifiable, as participants took this test remotely on their own devices.

DIFFERENCE IN SPEED USING RATCLIFFE ET AL. (2005) AS BASELINE	
Typical DMT	(0.046 / 0.092) * 100 = 50%
Atypical DMT	(0.088 / 0.092) * 100 = 95.6%
95.6 - 50 = 45.6%	

Ratcliffe et al (2025) didn't quantify exact sample size for their 12 studies which harms the rigour of comparison. Although their experiments differed to the SVT, the metric recorded was useful to make more sense of SVT findings and compared literature. Test times were 45 minutes which raises potential issues with concentration in the data set (Sharpe et al., 2025) when compared to this experiment and findings of from Rácz & Lukács (2025). Tests were conducted in lab environments, proving greater – and contrasting control of data collection.

Multiple factors potentially affecting the experiment results were identified. SVTs were conducted in a loud and distracting classroom environment; this could have affected response times if participants were distracted and drawing their attention away from the SVT. Participants also used their own device and could have been distracted if they received any notifications or alerts. Some participants were sat next to each other, and data collection could have been impacted if they had looked at another participant’s phone and what they answered while completing the experiment. Should this study be repeated, it is recommended that participants sit in a quiet room and take the experiment individually to avoid any distractions, cheating or unconscious bias.

PLATONISM AND FORMS

METHOD

Design

An experimental design was utilised to see if participants would respond faster to typical or atypical questions. The independent variable was category typicality (typical vs atypical exemplars). The dependent variable was reaction time - Seeing how long it took the participants to decide if the sentence was true or false.

Participants

A total of 16 participants, 2 male and 14 female, took part in this study. Participants were all over the age of 18 and students at Glasgow Caledonian University. They were all first year applied psychology students, in seminar group cw1. All participants gave informed consent and were made aware that their data would remain anonymous. To be sure that this study is in line with BPS ethical guidelines, no participants under the age of 16 were included in this study.

Materials and Procedure

This study used a web-hosted JavaScript application to collect response data. Participants used their own phones, scanned a QR code, read the consent form and completed the task by pressing buttons on screen and indicating a true or false response. The task showed 12 sentence verification questions of typical and atypical statements in a randomised order. The website automatically recorded response times for each question. Participants were instructed to respond as quickly and accurately as possible to each statement. Once all trials were completed, a short debrief message was displayed, thanking participants for taking part and explaining the purpose of the study.

Ethics

This experiment was ethical as all participants were over 16. All participants gave full informed consent. Participants were not deceived in any way; all study information was provided in full before the experiment took place. Data was recovered anonymously using the aforementioned JavaScript web-app that recorded response times on their device of choice (All mobile touch screen devices, though models varied). upon conclusion of the experiment, the recorded times and responses were emailed to a university email address.

CONCLUSION

To summarise, The findings of this experiment; when compared with related literature, gives weight to the hypothesis, that...

Individuals will identify objects or entities related to a category at a faster rate if they are typical examples of this category as opposed to atypical examples.

A 45.6% difference in recognition strengthens the argument that the conscious mind has an innate or typical set of criteria an entity should fit. strengthening the argument that Plato's theory of forms present in human cognition.

However, more research needs to be conducted, due to the potential discrepancy in compared literature. 100milliseconds makes a considerable potential difference in percentile of findings.

Also, the variance in external factors between all experiments leads to a list of potential factors which could have influenced results.