Duck test

The **duck test** is a form of abductive reasoning. This is its usual expression:

> If it looks like a duck, swims like a duck, and quacks like a duck, then it probably *is* a duck.

The test implies that a person can identify an unknown subject by observing that subject's habitual characteristics. It is sometimes used to counter abstruse arguments that something is not what it appears to be.

A mallard, shown looking like a duck and swimming like a duck.

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History

Indiana poet James Whitcomb Riley (1849–1916) may have coined the phrase when he wrote:

> When I see a bird that walks like a duck and swims like a duck and quacks like a duck, I call that bird a duck.[1]

A common variation of the wording of the phrase may have originated much later with Emil Mazey, secretary-treasurer of the United Auto Workers, at a labor meeting in 1946 accusing a person of being a communist:

> I can't prove you are a Communist. But when I see a bird that quacks like a duck, walks like a duck, has feathers and webbed feet and associates with ducks—I'm certainly going to assume that he *is* a duck.[2]

The term was later popularized in the United States by Richard Cunningham Patterson Jr., United States ambassador to Guatemala in 1950 during the Cold War, who used the phrase when he accused the Jacobo Arbenz Guzmán government of being Communist. Patterson explained his reasoning as

follows:

> Suppose you see a bird walking around in a farm yard. This bird has no label that says 'duck'. But the bird certainly looks like a duck. Also, he goes to the pond and you notice that he swims like a duck. Then he opens his beak and quacks like a duck. Well, by this time you have probably reached the conclusion that the bird is a duck, whether he's wearing a label or not.[3]

Later references to the duck test include Cardinal Richard Cushing's, who used the phrase in 1964 in reference to Fidel Castro.[4][5]

Douglas Adams parodied this test in his book *Dirk Gently's Holistic Detective Agency*:

> If it looks like a duck, and quacks like a duck, we have at least to consider the possibility that we have a small aquatic bird of the family Anatidae on our hands.[6]

Monty Python also referenced the test in the Witch Logic scene in their 1975 film Monty Python and the Holy Grail:

> What do you do with witches? Burn them! And what do you burn apart from witches? Wood! So, why do witches burn? 'cos they're made of wood? So; how do we tell if she is made of wood? Build a bridge out of 'er! Ah, but can you not also make bridges out of stone? Oh yeah. Does wood sink in water? No, it floats! It floats! Throw her into the pond! What also floats in water? Bread! Apples! Very small rocks? Cider! Gra-Gravy! Cherries! Mud! Churches? Churches! Lead, Lead. A Duck! Exactly. So, logically... If she weighs the same as a duck, she's made of wood... and therefore... a witch![7]

A claimed recent application of the duck test was the denial of tax exempt "nonprofit" status to Blue Shield of California.[A]

The Liskov Substitution Principle in computer science is sometimes expressed as a counter-example to the duck test:

> If it looks like a duck and quacks like a duck but it needs batteries, you probably have the wrong abstraction.[9]

Russian Minister of Foreign Affairs Sergey Lavrov used a version of the Duck Test in 2015 in response to allegations that Russian airstrikes in Syria were not targeting terrorist groups, primarily ISIS, but rather West-supported groups such as the Free Syrian Army. When asked to elaborate his definition of 'terrorist groups', he replied:

> If it looks like a terrorist, if it acts like a terrorist, if it walks like a terrorist, if it fights like a terrorist, it's a terrorist, right?[10]

Professor Vladimir Vapnik, a pioneer and co-inventor of Support Vector Machines (SVM) and a major contributor to the theory of machine learning and many foundational ideas in statistical learning, uses the duck test as a way to summarize the importance of simple predicates to classify things[11]. During the discussion he often uses the test to illustrate that the concise format of the duck test is a form of intelligence that machines are not capable of producing.

Elephant test

Similarly, the term *elephant test* refers to situations in which an idea or thing, "is hard to describe, but instantly recognizable when spotted".[12]

The term is often used in legal cases when there is an issue which may be open to interpretation,[13][14] such as in the case of *Cadogan Estates Ltd v Morris*, when Lord Justice Stuart-Smith referred to "the well known elephant test. It is difficult to describe, but you know it when you see it",[15] and in *Ivey v Genting Casinos*, when Lord Hughes (in discussing dishonesty) opined "like the elephant, it is characterised more by recognition when encountered than by definition." *Overruling* in part R v Ghosh.[16]

A similar incantation (used however as a rule of exclusion) was invoked by the concurring opinion of Justice Potter Stewart in *Jacobellis v. Ohio*, 378 U.S. 184 (1964), an obscenity case. He stated that the Constitution protected all obscenity except "hard-core pornography". Stewart opined, "I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description; and perhaps I could never succeed in intelligibly doing so. But I know it when I see it, and the motion picture involved in this case is not that."

See also

- Call a spade a spade
- Duck typing – A style of dynamic typing in object oriented programming
- Extensionality
- I know it when I see it – Colloquial expression
- Identity of indiscernibles – Impossibility for separate objects to have all their properties in common
- Inductive reasoning
- Operational definition
- Philosophical razor – Principle or rule of thumb that allows one to eliminate unlikely explanations for a phenomenon
- Sympathetic magic – Type of magic based on imitation or correspondence
- Zebra (medicine) – Unnecessarily exotic diagnosis in medicine

References

Notes

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board's action 'was an acknowledgment of what Blue Shield was already doing, or not doing,' said Anthony Wright, head of Health Access California, a consumer advocacy group. 'And if it looks like a duck and talks like a duck, it should be taxed like a duck."[8]

Citations

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15. Cadogan Estates Ltd v Morris (http://www.bailii.org/ew/cases/EWCA/Civ/1998/1671.html); EWCA Civ 1671 (4 November 1998) (at paragraph 17)

16. Ivey v Genting Casinos (UK) Ltd t/a Crockfords (https://www.supremecourt.uk/cases/uksc-2016-0 213.html); [2017] UKSC 67 (25 Oct 2017) (at paragraph 48)

Further reading

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