

# Twenty Questions

This article is about the spoken game. For the toy, see 20Q. For the computer-human game show, see 20Q (game show).

**Twenty Questions** is a spoken parlor game which en-



Opening titles on the 20 Questions television panel show (1949–1955)

courages deductive reasoning and creativity. It originated in the United States and was played widely in the 19th century.<sup>[1]</sup> It escalated in popularity during the late 1940s when it became the format for a successful weekly radio quiz program.

In the traditional game, one player is chosen to be the *answerer*. That person chooses a subject (object) but does not reveal this to the others. All other players are *questioners*. They each take turns asking a question which can be answered with a simple “Yes” or “No.” In variants of the game, multiple state answers may be included such as the answer “Maybe.” The answerer answers each question in turn. Sample questions could be: “Is it bigger than a breadbox?” or “Can I put it in my mouth?” Lying is not allowed in the game. If a questioner guesses the correct answer, that questioner wins and becomes the *answerer* for the next round. If 20 questions are asked without a correct guess, then the answerer has stumped the questioners and gets to be the answerer for another round.

Careful selection of questions can greatly improve the odds of the *questioner* winning the game. For example, a question such as “Does it involve technology for communications, entertainment or work?” can allow the *questioner* to cover a broad range of areas using a single question that can be answered with a simple “yes” or “no”. If the *answerer* responds with “yes,” the *questioner* can use the next question to narrow down the answer; if the *answerer* responds with “no,” the *questioner* has successfully

eliminated a number of possibilities for the answer.

## 1 Popular variants

The most popular variant is called “Animal, Vegetable, Mineral.” This is taken from the Linnaean taxonomy of the natural world. In this version, the *answerer* tells the *questioners* at the start of the game whether the subject belongs to the animal, vegetable or mineral kingdom. These categories can produce odd technicalities, such as a wooden table being classified as a vegetable (since wood comes from trees), or a belt being both animal and mineral (because its leather comes from the hide of an animal unless it is synthetic, and its buckle is made of metal). Though if made of cloth or plant fibers, a belt can also be considered a vegetable.

Other versions specify that the item to be guessed should be in a given category, such as actions, occupations, famous people, etc. In Hungary, a similar game is named after Simon bar Kokhba. A version of Twenty Questions called Yes and No is played as a parlour game by characters of Charles Dickens' *A Christmas Carol*.

Similar to the aforementioned, there is another version known to English as a Second Language educators that is played based on a given topic (e.g. peer pressure, social issues, environment, culture, etc.). There are many different ways to play this language game. 20 Questions on “Educate, School, Learn” (Blogger), for example, was developed for the Austrian Federal Ministry of Education and Women’s Affairs.

## 2 Computers, scientific method and situation puzzles

The abstract mathematical version of the game where some answers may be wrong is sometimes called Ulam’s game or the Rényi–Ulam game. The game suggests that the information (as measured by Shannon’s entropy statistic) required to identify an arbitrary object is at most 20 bits. The game is often used as an example when teaching people about information theory. Mathematically, if each question is structured to eliminate half the objects, 20 questions will allow the questioner to distinguish between  $2^{20}$  or 1,048,576 objects. Accordingly, the most effective strategy for Twenty Questions is to ask questions that will split the field of remaining possibilities roughly

in half each time. The process is analogous to a binary search algorithm in computer science or successive approximation ADC in analog-to-digital signal conversion.

In 1901 Charles Sanders Peirce discussed factors in the economy of research that govern the selection of a hypothesis for trial — (1) cheapness, (2) intrinsic value (instinctive naturalness and reasoned likelihood), and (3) relation (caution, breadth, and incompleteness) to other projects (other hypotheses and inquiries). He discussed the potential of Twenty Questions to single one subject out from among  $2^{20}$  and, pointing to skillful caution, said,

Thus twenty skillful hypotheses will ascertain what two hundred thousand stupid ones might fail to do. The secret of the business lies in the caution which breaks a hypothesis up into its smallest logical components, and only risks one of them at a time.

He elaborated on how, if that principle had been followed in the investigation of light, its investigators would have saved themselves from half a century of work.<sup>[2]</sup> Note that testing the smallest logical components of a hypothesis one at a time does not mean asking about, say, 1,048,576 subjects one at a time. Instead it means extracting aspects of a guess or hypothesis, and asking, for example, “did an animal do this?” before asking “did a horse do this?”.

That aspect of scientific method resembles also a situation puzzle in facing (unlike Twenty Questions) a puzzling scenario at the start. Both games involve asking yes/no questions, but Twenty Questions places a greater premium on efficiency of questioning. A limit on their likeness to the scientific process of trying hypotheses is that a hypothesis, because of its scope, can be harder to test for truth (test for a “yes”) than to test for falsity (test for a “no”) or vice versa.

### 3 Radio

In the 1940s the game became a popular radio panel quiz show, *Twenty Questions*, first broadcast at 8pm, Saturday, February 2, 1946, on the Mutual Broadcasting System from New York’s Longacre Theatre on West 48th Street. Radio listeners sent in subjects for the panelists to guess in 20 questions; Winston Churchill’s cigar was the subject most frequently submitted. On the early shows, listeners who stumped the panel won a lifetime subscription to *Pageant*. From 1946 to 1951, the program was sponsored by Ronson Lighters. In 1952-53, Wildroot Cream-Oil was the sponsor.

The show was the creation of Fred Van Deventer, who was born December 5, 1903 in Tipton, Indiana, and died December 2, 1971. Van Deventer was a WOR Radio newscaster with New York’s highest-rated news show, *Van Deventer and the News*. Van Deventer was on the

program’s panel with his wife, Florence Van Deventer, who used her maiden name, appearing on the show as Florence Rinard. Their 14-year-old son, Robert Van Deventer (known on the show as Bobby McGuire) and the program’s producer, Herb Polesie, completed the regular panel with daughter Nancy Van Deventer joining the group on occasions. Celebrity guests sometimes contribute to identifying the subject at hand.

The Van Deventer family had played the game for years at their home, long before they brought the game to radio, and they were so expert at it that they could often nail the answer after only six or seven questions. On one memorable show, Maguire succeeded in giving the correct answer (Brooklyn) without asking a single question. The studio audience was shown the answer in advance and Maguire based his answer on the audience’s reaction; during the 1940s, New York radio studio audiences included many Brooklynites, and they cheered wildly whenever Brooklyn was mentioned in any context.

The moderator was sportscaster Bill Slater who opened each session by giving the clue as animal, vegetable, or mineral. He then answered each query from panel members. This cast remained largely intact throughout the decade-long run of the show. Slater was succeeded at the beginning of 1953 by Jay Jackson, who remained through the final broadcast, and there were two changes in the panel’s juvenile chair. When McGuire graduated from high school, his decision to attend the North Carolina-based Duke University meant he could no longer remain on the program, so he asked his high school friend Johnny McPhee to replace him.<sup>[3]</sup> Since McPhee was attending nearby Princeton University, he was thus geographically available for the production in New York. McPhee continued until he graduated and was himself succeeded by Dick Harrison (real name John Beebe) in September 1953. Harrison continued until early 1954, when he was replaced by Bobby McGuire, then 22 years old. McGuire appeared as the “oldest living teenager” until the end of the run.

### 4 Television

As a television series, *Twenty Questions* debuted as a local show in New York on WOR-TV Channel 9 on November 2, 1949. Beginning on November 26, the series went nationwide on NBC until December 24, after which it remained dormant until March 17, 1950 when it was picked up by ABC until June 29, 1951.

Its longest and most well-known run, however, is the one on the DuMont Television Network from July 6, 1951 to May 30, 1954. During this time, original host Bill Slater was replaced by Jay Jackson. After this run ended, ABC picked up the series once again from July 6, 1954 to May 3, 1955. The last radio show had been broadcast on March 27, 1954.



Photo from DuMont advertising the show, with 14 year-old Dick Harrison, Herb Polesie, Fred Van Deventer, Florence Rinard, and actor Aldo Ray as guest panelist (February 1, 1954)

In 1975, producer Ron Greenberg made a pilot for a revival on ABC with host Jack Clark, which did not sell. The pilot featured four celebrities: actress Kelly Garrett, movie critic Gene Shalit, comedian Anne Meara, and actor Tony Roberts, along with two contestants who competed against each other.

In 1989, another revival pilot was made for syndication by Buena Vista Television. This version, hosted by Dick Wilson and featuring Markie Post and Fred Willard, also did not sell.

## 4.1 Recordings of episodes

Like many game shows of the era, *Twenty Questions* was a victim of wiping; most recordings of it were destroyed. A DuMont episode from January 18, 1952, and the 1975 pilot still circulate among collectors. As of August 2013, both can be seen on YouTube. It is unknown how many radio episodes survive.

## 4.2 Versions outside the US

*Twenty Questions* also appeared in several other countries.

### 4.2.1 United Kingdom

The BBC aired a version on radio from 28 February 1947 to 1976 with TV specials airing in 1947 and 1948 plus a series from 1956-1957. On radio, the subject to be guessed was revealed to the audience by a “mystery voice” (originally Norman Hackforth from 1947-1962; he was later a regular panelist).<sup>[4]</sup> Hackforth became well-known amongst the British public as much for his aloofness as his apparent knowledgeability.

The series was originally presented by Stewart MacPherson. The panel comprised Richard Dimbleby, Jack Train,

Anona Winn and Joy Adamson, in later years comedian Peter Glaze also. A later presenter, Gilbert Harding, was ousted in 1960 by producer Ian Messiter when, after having drunk a triple gin-and-tonic he had originally offered to Messiter, he proceeded to completely ruin the night’s game – he insulted two panelists, failed to recognise a correct identification after seven questions (after revealing the answer upon the 20th question, he yelled at the panel and audience), and ended the show three minutes early by saying “I’m fed up with this idiotic game ... I’m going home”.<sup>[5]</sup> He was replaced by Kenneth Horne until 1967, followed by David Franklin from 1970 to 1972.

A revival ran for one season in the 1990s on BBC Radio 4, hosted by Jeremy Beadle. A version with a rival line-up,<sup>[6]</sup> produced by commercial station Radio Luxembourg, is not acknowledged by the BBC.<sup>[4]</sup> Another revival, under the title *Guess What?*, was hosted by Barry Took for a single series in 1998.<sup>[7]</sup>

A televised version ran from 1960-1961, produced by Associated-Rediffusion for ITV and hosted by Peter Jones (who later hosted in 1974). The “mystery voice” later became a running gag on the radio series *I’m Sorry I Haven’t A Clue*.

The BBC World Service also broadcast a version called *Animal, Vegetable and Mineral*, chaired by Terry Wogan with a panel including Michael Flanders.

### 4.2.2 Canada

*Twenty Questions* aired on CTV in 1961; its host, Stewart Macpherson, went on to become the original host of the UK version.

### 4.2.3 Ireland

A bi-lingual (Irish/English) version of *Twenty Questions* aired on RTE Radio 1 in the 1960s and '70s. It was hosted by Gearóid Ó Tighearnaigh, written by Dick O’Donovan and produced by Bill O’Donovan (occasional panalist) and included Dominic O’Riordan, Tony Ó Dálaigh, Seán Ó Murchú and Máire Noone (the only woman) on the panel. It proved enormously popular, travelling the length and breadth of Ireland, hosted in local clubs and community halls. Photo of the Quiz team. Featured article in the RTE Guide 1 November 1968. An 8 minute bi-lingual extract of a 1971 broadcast can be heard here.

### 4.2.4 Norway

NRK aired its own version continuously from 1947 to the early 1980s. In 2004, the radio series was revived and regained its popularity, leading to a 2006 TV version. The Norwegian *20 spørsmål* continues on NRK radio and TV, and a web-based game is available at the official NRK

website. A 2006 board game based on the series is currently the prize sent to listeners who beat the panel.<sup>[8]</sup>

#### 4.2.5 Hungary

In Hungary, the game is known as *barkochba*, named after Simon bar Kokhba, the leader of the second century Jewish uprising against the Romans. The story goes that the Romans cut out a spy's tongue, so when he reached bar Kokhba's camp, he was only able to nod or shake his head to answer bar Kokhba's questions. The number of questions is not limited to twenty.

Barkochba was staged as a television game show *Kicsoda Micsoda?* (later renamed *Van Benne Valami*) on the Hungarian national television Magyar Televízió from 1975 to 1991. It was the first show presented by István Vágó, who would later host the Hungarian versions of Jeopardy! (*Mindent vagy semmit!*) and Who Wants to be a Millionaire? (*Legyen Ön is milliomos!*).

## 5 See also

- 20Q artificial intelligence
- Guess Who? board game
- List of programs broadcast by the DuMont Television Network
- List of surviving DuMont Television Network broadcasts
- 1950-51 United States network television schedule (ABC, Fridays at 8pm ET)
- 1951-52 United States network television schedule (DuMont, Fridays at 10pm ET)
- 1952-53 United States network television schedule (DuMont, Fridays at 10pm ET)
- 1953-54 United States network television schedule (DuMont, Mondays at 8pm ET)
- 1954-55 United States network television schedule (ABC, Tuesdays at 8:30pm ET)
- Situation puzzle
- Akinator, an online version which uses artificial intelligence

## 6 References

- David Weinstein, *The Forgotten Network: DuMont and the Birth of American Television* (Philadelphia: Temple University Press, 2004) ISBN 1-59213-245-6

- Alex McNeil, *Total Television*, Fourth edition (New York: Penguin Books, 1980) ISBN 0-14-024916-8
- Tim Brooks and Earle Marsh, *The Complete Directory to Prime Time Network TV Shows*, Third edition (New York: Ballantine Books, 1964) ISBN 0-345-31864-1
- David Schwartz, Steve Ryan and Fred Wostbrock, *The Encyclopedia of TV Game Shows*, Third edition (New York: Checkmark Books, 1999) ISBN 0-8160-3847-3

## 6.1 Notes

- [1] Walsorth, Mansfield Tracy. *Twenty questions: a short treatise on the game*, Holt, 1882
- [2] Peirce, C. S. (1901 MS), "On The Logic of Drawing History from Ancient Documents, Especially from Testimonies," manuscript corresponding to an abstract delivered at the National Academy of Sciences meeting of November 1901. Published in 1958 in *Collected Papers* v. 7, paragraphs 162–231; see 220. Reprinted (first half) in 1998 in *The Essential Peirce* v. 2, pp. 75–114; see 107–110.
- [3] "A Letter From The Publisher: Nov. 23, 1962". *Time*. 1962-11-23. ISSN 0040-781X. Retrieved 2008-09-18.
- [4] "Obituary: Norman Hackforth". *The Independent*. 1996-12-18. Retrieved 2009-08-26.
- [5] UK Game Shows: "20 Questions"
- [6] David Kynaston (2008). *Austerity Britain 1945–51*. Bloomsbury. p. 583. ISBN 978-0-7475-9923-4.
- [7] "Guess What?". *RadioListings*. Retrieved 2013-07-23.
- [8] "NRK". Nrk.no. 2009-06-20. Retrieved 2009-07-25.

## 7 External links

- Twenty Questions online game (20Q)
- DuMont historical website
- *Twenty Questions* (1949) at the Internet Movie Database
- The Glowing Dial: *Twenty Questions* (March 24, 1946) (audio)
- *Twenty Questions* (January 18, 1952) at Internet Archive
- The 1989 *Twenty Questions* pilot page at the Game Show Pilot Light
- Tactics of 20 Questions Rules and Tactics
- 20 Questions Play the game online
- Another Twenty Questions online game



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