Toulmin and his Model
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Stephen Edelston Toulmin (25 March 1922 – 4 December 2009) was a British philosopher, author, and educator. Influenced by Ludwig Wittgenstein, Toulmin devoted his works to the analysis of moral reasoning. Throughout his writings, he sought to develop practical arguments which can be used effectively in evaluating the ethics behind moral issues. His works were later found useful in the field of rhetoric for analyzing rhetorical arguments. The Toulmin Model of Argumentation, a diagram containing six interrelated components used for analyzing arguments, was considered his most influential work, particularly in the field of rhetoric and communication, and in computer science.

**Biography**

Stephen Toulmin was born in London, England, on 25 March 1922 to Geoffrey Edelson Toulmin and Doris Holman Toulmin. He earned his Bachelor of Arts degree from King’s College, Cambridge in 1942. Soon after, Toulmin was hired by the Ministry of Aircraft Production as a junior scientific officer, first at the Malvern Radar Research and Development Station and later at the Supreme Headquarters of the Allied Expeditionary Force in Germany. At the end of World War II, he returned to England to earn a Master of Arts degree in 1947 and a PhD in philosophy from Cambridge University, subsequently publishing his dissertation as *An Examination of the Place of Reason in Ethics* (1950). While at Cambridge, Toulmin came into contact with the Austrian philosopher Ludwig Wittgenstein, whose examination on the relationship between the uses and the meanings of language shaped much of Toulmin's own work.

After graduating from Cambridge, he was appointed University Lecturer in Philosophy of Science at Oxford University from 1949 to 1954, during which period he wrote a second book, *The Philosophy of Science: an Introduction* (1953). Soon after, he was appointed to the position of Visiting Professor of History and Philosophy of Science at Melbourne University in Australia from 1954 to 1955, after which he returned to England, and served as Professor and Chair of the Department of Philosophy at the University of Leeds from 1955 to 1959. While at Leeds, he published one of his most influential books in the field of rhetoric, *The Uses of Argument* (1958), which investigated the flaws of traditional logic. Although it was poorly received in England and satirized as “Toulmin's anti-logic book” by Toulmin's fellow philosophers at Leeds, the book was applauded by the rhetoricians in the United States, where Toulmin served as a visiting professor at New York, Stanford, and Columbia Universities in 1959. While in the States, Wayne Brockriede and Douglas Ehninger introduced Toulmin's work to communication scholars, as they recognized that his work provided a good structural model useful for the analysis and criticism of rhetorical arguments. In 1960, Toulmin returned to London to hold the position of director of the Unit for History of Ideas of the Nuffield Foundation. He was married to June Goodfield and collaborated with her on a series of books on the history of science.
In 1965, Toulmin returned to the United States, where he held positions at various universities. In 1967, Toulmin served as literary executor for close friend N.R. Hanson, helping in the posthumous publication of several volumes. While at the University of California, Santa Cruz, Toulmin published Human Understanding: The Collective Use and Evolution of Concepts (1972), which examines the causes and the processes of conceptual change. In this book, Toulmin uses the unprecedented comparison between conceptual change and Darwin's model of biological evolution to purport the process of conceptual change as an evolutionary process. The book confronts major philosophical questions as well. In 1973, while a professor in the Committee on Social Thought at the University of Chicago, he collaborated with Allan Janik, a philosophy professor at La Salle University, to publish Wittgenstein's Vienna, which advanced a thesis that underscores the significance of history to human reasoning: Contrary to philosophers who believe the absolute truth advocated in Plato's idealized formal logic, Toulmin argues that truth can be a relative quality, dependent on historical and cultural contexts (what other authors have termed "conceptual schemata").

From 1975 to 1978, he worked with the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, established by the United States Congress. During this time, he collaborated with Albert R. Jonsen to write The Abuse of Casuistry: A History of Moral Reasoning (1988), which demonstrates the procedures for resolving moral cases. One of his most recent works, Cosmopolis: The Hidden Agenda of Modernity (1990), written while Toulmin held the position of the Avalon Foundation Professor of the Humanities at Northwestern University, specifically criticizes the practical use and the thinning morality underlying modern science.

Toulmin held distinguished professorships at numerous universities, including Columbia, Dartmouth, Michigan State, Northwestern, Stanford, the University of Chicago, and the University of Southern California School of International Relations.

In 1997 the National Endowment for the Humanities (NEH) selected Toulmin for the Jefferson Lecture, the U.S. federal government's highest honor for achievement in the humanities. His lecture, "A Dissenter's Story" (alternatively entitled "A Dissenter's Life"), discussed the roots of modernity in rationalism and humanism, the "contrast of the reasonable and the rational," and warned of the "abstractions that may still tempt us back into the dogmatism, chauvinism and sectarianism our needs have outgrown." The NEH report of the speech further quoted Toulmin on the need to "make the technical and the humanistic strands in modern thought work together more effectively than they have in the past."

On 4 December 2009 Toulmin died of a heart failure at the age of 87 in Los Angeles, California.

**Meta-philosophy**

**Objection to absolutism & relativism**

Throughout many of his works, Toulmin pointed out that absolutism (represented by theoretical or analytic arguments) has limited practical value. Absolutism is derived from Plato's idealized formal logic, which advocates universal truth; accordingly, absolutists believe that moral issues can be resolved by adhering to a standard set of moral principles, regardless of context. By contrast, Toulmin asserts that many of these so-called standard principles are irrelevant to real situations encountered by human beings in daily life.

To reinforce his assertion, Toulmin introduced the concept of argument fields; in The Uses of Argument (1958), Toulmin states that some aspects of arguments vary from field to field, and are hence called "field-dependent," while other aspects of argument are the same throughout all fields, and are hence called "field-invariant." The flaw of absolutism, Toulmin believes, lies in its unawareness of the field-dependent aspect of argument; absolutism assumes that all aspects of argument are field invariant.

In Human Understanding (1972), Toulmin suggests that anthropologists have been tempted to side with relativists because they have noticed the influence of cultural variations on rational arguments; in other words, the anthropologist or relativist overemphasizes the importance of the "field-dependent" aspect of arguments, and becomes unaware of the "field-invariant" elements. In an attempt to provide solutions to the problems of absolutism
and relativism, Toulmin attempts throughout his work to develop standards that are neither absolutist nor relativist for assessing the worth of ideas.

In *Cosmopolis* (1990), he traces philosophers' "quest for certainty" back to Descartes and Hobbes, and lauds Dewey, Wittgenstein, Heidegger and Rorty for abandoning that tradition.

**Humanizing modernity**

In *Cosmopolis* Toulmin seeks the origins of the modern emphasis on universality (philosophers' "quest for certainty"), and criticizes both modern science and philosophers for having ignored practical issues in preference of abstract and theoretical issues. The pursuit of absolutism and theoretical arguments lacking practicality, for example, is, in his view, one of the main defects of modern philosophy. Similarly, Toulmin sensed a thinning of morality in the field of sciences, which has diverted its attention from practical issues concerning ecology to the production of the atomic bomb. To solve this problem, Toulmin advocated a return to humanism consisting of four returns: a return to oral communication and discourse, a plea which has been rejected by modern philosophers, whose scholarly focus is on the printed page; a return to the particular, or individual cases that deal with practical moral issues occurring in daily life (as opposed to theoretical principles that have limited practicality); a return to the local, or to concrete cultural and historical contexts; and, finally, a return to the timely, from timeless problems to things whose rational significance depends on the time lines of our solutions. He follows up on this critique in *Return to Reason* (2001), where he seeks to illuminate the ills that, in his view, universalism has caused in the social sphere, discussing, among other things, the discrepancy between mainstream ethical theory and real-life ethical quandaries.

**Argumentation**

**The Toulmin Model of Argument**

Arguing that absolutism lacks practical value, Toulmin aimed to develop a different type of argument, called practical arguments (also known as substantial arguments). In contrast to absolutists' theoretical arguments, Toulmin's practical argument is intended to focus on the justificatory function of argumentation, as opposed to the inferential function of theoretical arguments. Whereas theoretical arguments make inferences based on a set of principles to arrive at a claim, practical arguments first find a claim of interest, and then provide justification for it. Toulmin believed that reasoning is less an activity of inference, involving the discovering of new ideas, and more a process of testing and sifting already existing ideas—an act achievable through the process of justification.

Toulmin believed that for a good argument to succeed, it needs to provide good justification for a claim. This, he believed, will ensure it stands up to criticism and earns a favourable verdict. In *The Uses of Argument* (1958), Toulmin proposed a layout containing six interrelated components for analyzing arguments:

- **Claim**
  
  A conclusion whose merit must be established. For example, if a person tries to convince a listener that he is a British citizen, the claim would be "I am a British citizen." (1)

- **Ground (Evidence, Data)**
  
  A fact one appeals to as a foundation for the claim. For example, the person introduced in 1 can support his claim with the supporting data "I was born in Bermuda." (2)

- **Warrant**
  
  A statement authorizing movement from the ground to the claim. In order to move from the ground established in 2, "I was born in Bermuda," to the claim in 1, "I am a British citizen," the person must supply a warrant to bridge the gap between 1 and 2 with the statement "A man born in Bermuda will legally be a British citizen." (3)

- **Backing**
Credentials designed to certify the statement expressed in the warrant; backing must be introduced when the warrant itself is not convincing enough to the readers or the listeners. For example, if the listener does not deem the warrant in 3 as credible, the speaker will supply the legal provisions as backing statement to show that it is true that "A man born in Bermuda will legally be a British citizen."

Rebuttal
Statements recognizing the restrictions which may legitimately be applied to the claim. The rebuttal is exemplified as follows: "A man born in Bermuda will legally be a British citizen, unless he has betrayed Britain and has become a spy of another country."

Qualifier
Words or phrases expressing the speaker's degree of force or certainty concerning the claim. Such words or phrases include "probably," "possible," "impossible," "certainly," "presumably," "as far as the evidence goes," and "necessarily." The claim "I am definitely a British citizen" has a greater degree of force than the claim "I am a British citizen, presumably."

The first three elements, "claim," "data," and "warrant," are considered as the essential components of practical arguments, while the second triad, "qualifier," "backing," and "rebuttal," may not be needed in some arguments.

When Toulmin first proposed it, this layout of argumentation was based on legal arguments and intended to be used to analyze the rationality of arguments typically found in the courtroom. Toulmin did not realize that this layout could be applicable to the field of rhetoric and communication until his works were introduced to rhetoricians by Wayne Brockriede and Douglas Ehninger. Only after Toulmin published *Introduction to Reasoning* (1979) were the rhetorical applications of this layout mentioned in his works.

Toulmin's argument model has inspired research on, for example, the Goal Structuring Notation (GSN), widely used for developing safety cases, and argument maps and associated software.

**Ethics**

**Good Reasons approach**
In *Reason in Ethics* (1950), his doctoral dissertation, Toulmin sets out a Good Reasons approach of ethics, and criticizes what he considers to be the subjectivism and emotivism of philosophers such as A. J. Ayer because, in his view, they fail to do justice to ethical reasoning.

**The revival of casuistry**
By reviving casuistry (also known as case ethics), Toulmin sought to find the middle ground between the extremes of absolutism and relativism. Casuistry was practiced widely during the Middle Ages and the Renaissance to resolve moral issues. Although it largely fell silent during the modern period, casuistry is being revived in the post-modern period. In *The Abuse of Casuistry: A History of Moral Reasoning* (1988), Toulmin collaborated with Albert R. Jonsen to demonstrate the effectiveness of casuistry in practical argumentations during the Middle Ages and the Renaissance.

Casuistry employs absolutist principles, called "type cases" or "paradigm cases," without resorting to absolutism. It uses the standard principles (for example, sanctity of life) as referential markers in moral arguments. An individual case is then compared and contrasted with the type case. Given an individual case that is completely identical to the type case, moral judgments can be made immediately using the standard moral principles advocated in the type case. If the individual case differs from the type case, the differences will be critically assessed in order to arrive at a rational claim.

Through the procedure of casuistry, Toulmin and Jonsen identified three problematic situations in moral reasoning: first, the type case fits the individual case only ambiguously; second, two type cases apply to the same individual
case in conflicting ways; third, an unprecedented individual case occurs, which cannot be compared or contrasted to any type case. Through the use of casuistry, Toulmin demonstrated and reinforced his previous emphasis on the significance of comparison to moral arguments, a significance not addressed in theories of absolutism or relativism.

**Philosophy of Science**

**The Evolutionary Model**
In 1972, Toulmin published *Human Understanding*, in which he asserts that conceptual change is an evolutionary process. This book attacks Thomas Kuhn's account of conceptual change in his seminal work *The Structure of Scientific Revolutions*. Kuhn believed that conceptual change is a revolutionary process (as opposed to an evolutionary process), during which mutually exclusive paradigms compete to replace one another. Toulmin criticized the relativist elements in Kuhn's thesis, arguing that mutually exclusive paradigms provide no ground for comparison, and that Kuhn made the relativists' error of overemphasizing the "field variant" while ignoring the "field invariant" or commonality shared by all argumentation or scientific paradigms.

In contrast to Kuhn's revolutionary model, Toulmin proposed an evolutionary model of conceptual change comparable to Darwin's model of biological evolution. Toulmin states that conceptual change involves the process of innovation and selection. Innovation accounts for the appearance of conceptual variations, while selection accounts for the survival and perpetuation of the soundest conceptions. Innovation occurs when the professionals of a particular discipline come to view things differently from their predecessors; selection subjects the innovative concepts to a process of debate and inquiry in what Toulmin considers as a "forum of competitions." The soundest concepts will survive the forum of competition as replacements or revisions of the traditional conceptions.

From the absolutists' point of view, concepts are either valid or invalid regardless of contexts. From the relativists' perspective, one concept is neither better nor worse than a rival concept from a different cultural context. From Toulmin's perspective, the evaluation depends on a process of comparison, which determines whether or not one concept will improve explanatory power more than its rival concepts.

**Works**

- *An Introduction to the Philosophy of Science* (1953)
- *Metaphysical Beliefs, Three Essays* (1957) with Ronald W. Hepburn and Alasdair MacIntyre
- *The Riviera* (1961)
- *Seventeenth century science and the arts* (1961)
- *Night Sky at Rhodes* (1963)
- *Wittgenstein's Vienna* (1972) with Allan Janik
• Social Impact of AIDS in the United States (1993) with Albert R. Jonsen
• Beyond theory - changing organizations through participation (1996) with Bjørn Gustavsen (editors)

Notes


"Toulmin's 1958 work is essential in the field of argumentation"


References
External links

- Stephen Toulmin (http://www.willamette.edu/clarhetoric/courses/argumentation/Toulmin.htm)
- Interview with Stephen Toulmin in JAC (http://www.jacweb.org/Archived_volumes/Text_articles/V13_I2_Olson_Toulmin.htm)
- Works by or about Stephen Toulmin (http://worldcat.org/identities/lccn-n79-129582) in libraries (WorldCat catalog)

Toulmin method

The **Toulmin Method** is an informal method of reasoning. Created by the British philosopher Stephen Toulmin, it involves the data, claim, and warrant of an argument. These three parts of the argument are all necessary to support a good argument. The "Data" is the evidence used to prove something. The "Claim" is what you are proving with the data. The "Warrant" is the assumption or principle that connects the data to the claim. All three parts are necessary.

For an example: "Harry was born in Bermuda, so Harry must be a British subject."

In the above sentence, the phrase "Harry was born in Bermuda" is the data. This is evidence to support the claim. The claim in the sentence above is "Harry must be a British subject." The warrant is not explicitly stated in this sentence; it is implied. The warrant is something like this, "A man born in Bermuda will be a British subject." It is not necessary to state the warrant in a sentence. Usually, one explains the warrant in following sentences. Other times, like in the sentence above, the speaker of the sentence assumes the listener already knows the fact that all people born in Bermuda are British subjects.

Another example: "Steve bought apple juice for himself, so he must like apple juice."

This argument provides the data, claim, and warrant. The data would be the fact that Steve bought apple juice for himself. The claim is that Steve must like apple juice. The warrant is that people who buy apple juice, drink it, which means that they must like it, or else they wouldn't drink it. Again, the warrant is considered background knowledge and unnecessary to repeat in the argument. If one were to expound this argument, however, it would be helpful to explain the warrant.

An author usually will not bother to explain the warrant because it is too obvious. It is usually an assumption or a generalization. However, the author must make sure the warrant is clear because the reader must understand the author's assumptions and why the author assumes these opinions. An example of an argument with an unclear warrant is like this: "Drug abuse is a serious problem in the United States. Therefore, the United States must help destroy drug production in Latin America." This may leave the reader confused. By inserting the warrant in between the data and the claim, though, would make the argument clearer. Something like, "As long as drugs are manufactured in Latin America, they will be smuggled into the United States, and drug abuse will continue." This phrase makes clear why the evidence relates to the claim. One must be cautious as to deciding whether or not to include the warrant in the argument because flaws in the argument could be obvious.

Backing, rebuttals, and qualifiers are also typical additions to this argument. The backing is added logic or reasoning that may be needed to convince the audience and further support the warrant if it is not initially accepted. Rebuttals are used as a preemptive method against any counter-arguments. These acknowledge the limits of the claim, considering certain conditions where it would not hold true. Usually following is a counter-argument or presentation of new evidence to further support the original claim. Qualifiers are words that quantify the argument. They include words such as 'most', 'usually', 'always', 'never', 'absolutely' or 'sometimes'. These can either strongly assert arguments or make them vague and uncertain.
Practical arguments

Practical arguments are a logical structure used to determine the validity or dependencies of a claim. See argument for uses and general information.

Overview
An argument can be thought of as two or more contradicting tree structures.

- The root of each tree is a claim; A belief supported by information.
- The root branches out to nodes that are grounds; supporting information.
- The edges connecting them are warrants; rules or principles.
- Claims, grounds and warrants are often not known for certain, so they are presented with a qualifier to indicate their probability.
- When a ground is disputable it is a sub claim, in this way the tree can grow to be quite large.

The object of a discussion is often to resolve a difference of opinion. This requires common grounds from which to logically convince your opponent that your claim is better supported and that their claim is supported by false grounds and or warrants. (see Occam’s razor) If one has no grounds or warrants to support ones claim, then one has no argument just a belief/claim, probably an inaccurate one.

Example 1:
- Claim: Cats are less intelligent than dogs.
- Ground: Cats cannot learn to do tricks as well as dogs do.
- Warrant: The ability to learn tricks is a mark of intelligence.

Example 2:

Where: C=claim, W=warrant, G=ground, and Q=qualifier
• C: Humans can't fly.
  • Q: In a gravity field without assistance or modification
  • W1: Because it defies the laws of Newtonian physics it can not be done.
    • Q: Fact
    • G1: It defies the laws of Newtonian physics.
      • Q: Disputable fact
    • W1.1: Because Newtonian physics applies it would defy the laws of Newtonian physics.
      • Q: Fact
    • G1.1: Newtonian physics apply to all super quantum systems including people
      • Q: Fact
    • W1.2: Because there is no print record it is highly improbable.
      • Q: Highly improbable
    • G1.2: There is no print record of any reputable person claiming such a thing.
      • Q: Fact
  • W2: Because no one has ever flown, it is highly improbable.
    • Q: Highly improbable
    • G2: No one has ever flown.
      • Q: Disputable fact
    • W2.1: Because there is no print record it is highly improbable.
      • Q: Highly improbable
    • G2.1: There is no print record of any reputable person claiming such a thing.
      • Q: Fact

References

• Books:
  • Writing Arguments by John D. Ramage [3]
  • The Craft of Research by Wayne C. Booth [4]
• www:
  • About Argumentation by University of California [5]
  • Argumentation by Winthrop University [6]
Practical reason

In philosophy, practical reason is the use of reason to decide how to act. This contrasts with theoretical reason (often called speculative reason), which is the use of reason to decide what to believe. For example: agents use practical reason to decide whether to build a telescope, but theoretical reason to decide which of two theories of light and optics is the best. Practical reason is understood by most philosophers as determining a plan of action. Thomistic ethics defines the first principle of practical reason as the "good is to be done and pursued, and evil is to be avoided."[1] For Kant, practical reason has a law abiding quality because the Categorical imperative is understood to be binding one to one's duty rather than subjective preferences. Utilitarians tend to see reason as an instrument for the satisfactions of wants and needs.

In classical philosophical terms, it is very important to distinguish three domains of human activity: theoretical reason, which investigates the truth of contingent events as well as necessary truths; practical reason which determines whether a prospective course of action is worth pursuing; and productive or technical reason which attempts to find the best means for a given end. Aristotle viewed philosophical activity as the highest activity of the human being and gave pride of place to metaphysics or wisdom. Since Descartes, practical judgment and reasoning have been treated with less respect because of the demand for greater certainty and an infallible method to justify beliefs.

In cognitive research, practical reason is the process of ignoring unproductive possibilities in favor of productive possibilities. It is considered a form of cognitive bias, because it is illogical. An example would be calling all hospitals to look for your missing child, but not checking morgues, as finding his corpse would be 'counter-productive.'

References

[1] Summa Theologiæ, I-IIª q. 94 a. 2 (http://www.newadvent.org/summa/2094.htm#article2) co.


External links

- Stanford Encyclopedia of Philosophy:
  - Practical Reason (http://plato.stanford.edu/entries/practical-reason/)
  - Medieval Theories of Practical Reason (http://plato.stanford.edu/entries/practical-reason-med/)
  - Practical Reason and the Structure of Actions (http://plato.stanford.edu/entries/practical-reason-action/)
Appendix

Enthymeme

An enthymeme (Greek: ἐνθύμημα, enthumēma), in its modern sense, is an informally stated syllogism (a three-part deductive argument) with an unstated assumption that must be true for the premises to lead to the conclusion. In an enthymeme, part of the argument is missing because it is assumed. In a broader usage, the term "enthymeme" is sometimes used to describe an incomplete argument of forms other than the syllogism,[1] or a less-than-100% argument.[2] For Aristotle, who defined it in his Rhetoric, an enthymeme was a "rhetorical syllogism" which was based on probable opinions, thus distinguishing it from a scientific syllogism. It is aimed at persuasion while scientific syllogism is aimed at demonstration.[3] This definition of an enthymeme held fast until the 20th century, when Saul Kripke developed Modal logic. In the context of Modal logic, with Semantic tableaux as developed by Evert Willem Beth, the definition of an enthymeme alters: Rather than suppressing one of the major premises, minor premises, or the conclusion, any incorrect logical inference or proof that is persuasive, satisfies a concept of an enthymeme.

Formal requirements

While syllogisms lay out all of their premises and conclusion explicitly, enthymemes keep at least one of the premises or conclusion unsaid. The assertion left unsaid is intended to be so obvious as to not need stating.[4]

Thus, enthymemes allow the speaker both to avoid alienating listeners with long chains of inferences and appeal to the audience's common sense without depleting the argument any of its logical force. For instance, a lawyer might say: "Only she had the means, the motive and the opportunity to kill him. She must be the killer." Logically, what's missing? A connection between the statements, which we tend to fill in automatically. Something like "The killer had the means, motive and opportunity to kill him." But a lawyer who spelled this detail out to the jury might be considered pedantic.

Though they require some filling in, enthymemes are intended to have the form of valid deductive syllogisms, so a complete enthymeme has the same premise-premise-conclusion structure as any syllogism, and is intended to guarantee the truth of its conclusion based on the truth of its premises.

Hence the argument...

P1: Only she had the means, the motive and the opportunity to kill him.
P2: The one with the means, motive and opportunity to kill him is the killer. (unstated)
C: She must be the killer.

...is clearly valid and deductive when the unstated premise is made explicit. But leaving the second premise to the imagination of the jurors is more appealing from a rhetorical standpoint. [4]
Order

There are three conventional orders of enthymemes. A **first-order enthymeme** suppresses the major premise. A **second-order enthymeme** suppresses the minor premise. A **third-order enthymeme** suppresses the conclusion. Other orders of enthymemes, in which 2 elements of the syllogism are suppressed, could be postulated.

Examples

**Informal syllogism**

- "Socrates is mortal because he's human."
  
  The complete syllogism would be the classic:
  
  All humans are mortal. (major premise - assumed)
  Socrates is human. (minor premise - stated)
  Therefore, Socrates is mortal. (conclusion - stated)

**Maxim, or a less-than-100% argument**

- Klamer *et al.* argue in their 2007 paper that Aristotle addressed enthymemes as maxims:

  "Aristotle noted that most arguments take the form of an 'enthymeme' ('EN-thu-miem'), an incomplete or not-quite-air-tight syllogism. 'Free trade is good' or 'Taxes reduce output' are enthymemes, not-syllogistic arguments. The average French economist may find such arguments 45 percent true, whereas the average American economist may find them 80 percent true. Arguing an enthymeme is successful when the economist defends the 45 or 80 percent true as 'true enough.' Economics, like other sciences, works in approximations."[2]

References


External links

- Extensive bibliography of enthymeme in scholarly literature (http://rhetjournal.net/RhetJournal/Enthymemes.html)


- Audio illustrations of enthymeme (http://www.americanrhetoric.com/figures/enthymeme.htm)
Stephen Toulmin  

Toulmin method  
Contributors: Amos Matthiias, Bradv, Greghurdb, LilHelpa, MatthewVanitas, Nuar20, Tirth1097, 1 anonymous edits

Practical arguments  
Contributors: Brodon, Frankie1969, Gamewizd71, Greghurdb, JoanneB, Michael Devore, N2e, Tiir6, 5 anonymous edits

Enthymeme  
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