

Mode	Reasoning Pattern
Sign	Reasoning from sign is based on signs, or indicators, and their referents. The presence of a sign or indicator is believed to justify the expectation that some other sign or indicator will occur as well. Examples are indicators of institutional performance such as "organizational report cards" and "benchmarks" or indicators of economic performance such as "leading economic indicators." Signs are not causes, because causality must satisfy temporal precedence and other requirements not expected of signs.
Motivation	Reasoning from motivation is based on the motivating power of goals, values, and intentions in shaping individual and collective behavior. For example, a claim that citizens will support the strict enforcement of pollution standards might be based on reasoning that since citizens are motivated by the desire to achieve the goal of clean air and water, they will support strict enforcement.
Intuition	Reasoning from intuition is based on the conscious or preconscious cognitive, emotional, or spiritual states of producers of policy-relevant information. For example, the belief that an advisor has some special insight, feeling, or "tacit knowledge" may serve as a reason to accept his or her judgment.
Analogy	Reasoning from analogies is based on similarities between relations found in a given case and relations characteristic of a metaphor or analogy. For example, the claim that government should "quarantine" a country by interdicting illegal drugs—with the illegal drugs seen as an "infectious disease"—is based on reasoning that since quarantine has been effective in cases of infectious diseases, interdiction will be effective in the case of illegal drugs.
Parallel Case	Reasoning from parallel case is based on similarities among two or more cases of policy making. For example, the claim that a local government will be successful in enforcing pollution standards is based on information that a parallel policy was successfully implemented in a similar local government elsewhere.
Ethics	Reasoning from ethics is based on judgments about the rightness or wrongness, goodness or badness, of policies or their consequences. For example, policy claims are frequently based on moral principles stating the conditions of a "just" or "good" society, or on ethical norms prohibiting lying in public life. Moral principles and ethical norms go beyond the values and norms of particular individuals or groups. In public policy, many arguments about economic benefits and costs involve unstated or implicit moral and ethical reasoning.

Argumentation from Authority

Here claims are based on authority. Whereas information consists of factual reports or expressions of opinion, the warrant affirms the reliability or trustworthiness of the source of the information. Depending on the social context, authorities may be kings, magicians, or religious leaders, or they may be scientists, professors, or news reporters.

In an authoritative argument, the claim reiterates the policy-relevant information that has been provided by the authority, whose reliability, status, or

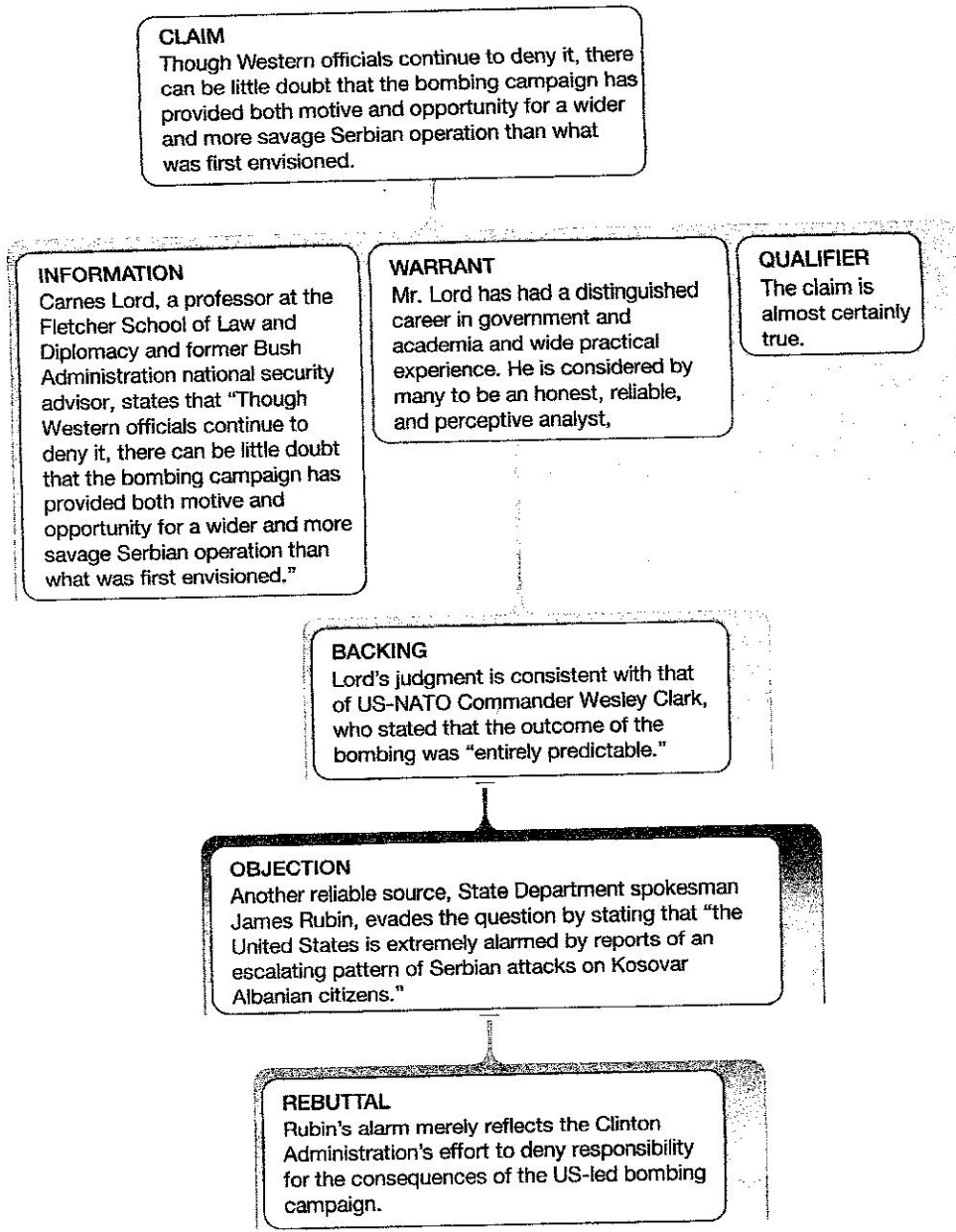


FIGURE 8.3
Argumentation from authority—unintended consequences of the U.S.-NATO attack on Yugoslavia

sagacity has been underwritten by the warrant. To illustrate (Figure 8.3), let us imagine that a policy analyst advising the National Security Council at the height of the 1999 U.S.-NATO attack on Yugoslavia made the designative claim,

C: "Though Western officials continue to deny it, there can be little doubt that the bombing campaign has provided both motive and opportunity for a wider and more savage Serbian operation than what was first envisioned." The warrant, W, is authoritative and credible. The objection, O, is from a rival authority. The claim's credibility is virtually no different from that of the rival authority.

Method

Argumentation methods used in the analysis of factual statements: accepting the method, rule, or information used to produce the statement has information power plants in solar plants. The government information, economics. The "universal selection" The rebuttal transitivity by Q1 is reduced "quite uncertain" In argument ascribed status authority of a decision analysis policy agenda. The author mathematics, originate in

⁷*Boston Globe*, *Affairs* (Cambridge)
⁸On rules expressed Oppenheimer, M.
⁹Allen Schick, "E"

C: "Though Western leaders continue to deny it, there can be little doubt that the bombing campaign has provided both motive and opportunity for a wider and more savage Serbian operation than what was first envisioned."⁷ The information, *I*, is from a statement by Carnes Lord, a professor at the Fletcher School of Law and Diplomacy and former Bush administration national security advisor. The warrant, *W*, affirms Lord's reliability and is backed, *B*, by an additional authoritative argument intended to add to the persuasiveness of the argument. The objection, *O*, challenges the initial warrant, but without weakening the claim's credibility, which is stated in the qualifier, *Q*. The rebuttal, *R*, has virtually no effect on *Q*, which does not change in response to the challenge by a rival authority, State Department spokesman James Rubin.

Method

Argumentation from method is based on warrants about the approved status of methods used to produce information. Policy-relevant information may consist of factual statements or reports. The role of the warrant is to provide a reason for accepting the claim by associating the information with the use of an approved method, rule, or principle. Usually, the claim is that the condition described in the information should be regarded as valuable (or worthless), because of the method used to produce it. Consider the following public investment problem: An analyst has information *I*, that the production of energy per dollar is greater in nuclear power plants than in hydroelectric plants, which in turn produce more energy than solar plants. The claim, *C*, is that

The government should invest in nuclear energy. The warrant, *W*, associates the information, *I*, with claim, *C*, by invoking the transitivity rule of mathematical economics.⁸ The warrant is backed, *B*, by the presumption that transitivity is a "universal selection rule" that guarantees the rationality of choice.

The rebuttal, *R*, challenges the presumption about the universal validity of transitivity by pointing to the presence of cyclical preferences. The original qualifier *Q1* is reduced from "very likely" to the new qualifier *Q2*, which is now stated as "quite uncertain" (Figure 8.4).

In argumentation from method, claims are assessed in terms of the achieved or ascribed status of methods or the rules guiding their use. Those who accept the authority of analytic methods such as econometrics, benefit-cost analysis, a or decision analysis falsely believe that the use of such methods actually "sets the policy agenda and its directions, that useful analysis will be used analysis."⁹

The authority of methods need not be derived from rules of formal logic or mathematics, as the history of qualitative methods shows. Many qualitative methods originate in the hermeneutic tradition, which evolved from the interpretation of

biblical texts.

⁷*Boston Globe*, April 4, 1999. Quoted in Noam Chomsky, *Rogue States: The Rule of Force in World Affairs* (Cambridge, MA: South End Press, 2000), p. 35.

⁸On rules expressing transitive and cyclical preferences, see, for example, Norman Frohlich and Joe A. Oppenheimer, *Modern Political Economy* (Englewood Cliffs, NJ: Prentice Hall, 1978), pp. 6-13.

⁹Allen Schick, "Beyond Analysis," *Public Administration Review* 37, no. 3 (1977): 259.

ainly

attack

8.3), let
cil at the
ve claim,