

Rational Force of Analogy/*Qiyās* in Law: Logic of Law in Islamic and Contemporary Legal Reasoning

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Abstract: Analogy is an inherently fragile form of argument, as the conclusion is derived from similarity, while overlooking dissimilarities. Yet law necessarily depends upon analogical reasoning to ensure consistency and predictability in its rulings. This entanglement of fragility and necessity compels the legal traditions, like Islamic and common laws, to formulate a justification of analogy when applied in law. The most successful justification, I argue, is the one that is anchored in logic. This logical grounding is a shared feature among contemporary legal theorist Scott Brewer, the informal logician Douglas Walton, and the 12th-century Muslim jurist-logician al-Ghazzālī, as all three insist that the justification of legal analogy is logical. This paper aims to trace the thematic contours of their explanation in order to demonstrate, drawing primarily on al-Ghazzālī's two works: *al-Mustaṣfā fī Uṣūl al-Fiqh* and *al-Muntaḥal fī al-Jadal*, that al-Ghazzālī's model of analogical reasoning effectively integrates key elements of Brewer's abduction model and Walton's model of defeasible argument.

Résumé: L'argumentation par analogie est intrinsèquement fragile, car elle tire ses conclusions de la similitude, tout en négligeant les différences. Pourtant, le droit repose nécessairement sur le raisonnement analogique pour garantir la cohérence et la prévisibilité de ses décisions. Ce paradoxe entre fragilité et nécessité oblige les systèmes juridiques, comme le droit islamique et le common law, à justifier l'utilisation de l'analogie. Je soutiens que la justification la plus pertinente est celle qui repose sur la logique. Ce fondement logique est un point commun aux théories contemporaines de Scott Brewer, au modèle de logique non formelle de Douglas Walton et à la pensée du juriste et logicien musulman du XII^e siècle, al-Ghazzālī, qui insistent tous sur le caractère logique de la justification de l'analogie juridique. Cet article vise à analyser les fondements conceptuels de ces théories, en s'appuyant principalement sur les deux ouvrages d'al-Ghazzālī : *al-Mustaṣfā fī Uṣūl al-Fiqh* et *al-Muntaḥal fī al-Jadal*, afin de démontrer que le modèle de raisonnement analogique d'al-Ghazzālī intègre efficacement les éléments clés du modèle d'abduction de Brewer et du modèle d'argumentation réfutable de Walton.

Keywords: abduction, analogy, comparative legal reasoning, defeasibility, *qiyas*.

Introduction

Despite many differences in their structures and underlying philosophies, Islamic law and contemporary laws share some important parallels in their legal hermeneutics. One such feature is that both fundamentally rely upon analogical reasoning. In common law traditions, legal judgments often hinge on the doctrine of *stare decisis*, which holds that if a case has been decided in a certain manner by a court, then a similar new case should be decided similarly (Walton et al., 2008, p.43). Likewise, Islamic jurisprudence places considerable emphasis on *qiyās* (legal analogy), which compares newly emerging cases with cases resolved by primary sources; the Qur'an and Prophetic traditions (Hallaq 1997, p. 23)¹.

A few previous comparative approaches to Islamic and contemporary legal theories have offered insightful thoughts on both traditions and their hermeneutical considerations. In such a comparative approach, Wael Hallaq concluded with a provocative insight that Islamic law can be described as more 'logical' than Common Law since in Islamic legal reasoning, logical consistency takes priority over modification according to social change (Hallaq 1985, p.96). Inspired by this provocative insight and the thorough study of Islamic legal dialectics (*jadal*) by Walter Young (2017), Rahman et al. (2019) developed a contemporary formal analysis that facilitates and extends the task of comparison between the theories of Islamic and contemporary logic. Taking a further step in that direction, Martínez-Cazalla et al. (2021) compared analogical reasoning in Islamic juris-

¹ It is important to distinguish between legal logic, as a mode of reasoned interpretation, and the legislation of law as a domain of authority. Legal logic pertains to the rational structure and justificatory force of legal arguments, whereas legislation concerns who holds the power to issue binding rules. In the case of latter, Civil law confines the authority of law-making to legislators, while common law grants judicial rulings the power to set precedents. The authority of law making in Islamic legal tradition is vested on a discursive formation, a gradual, collective juristic process within legal schools, in which legal norms become determined over time (Al-Azem 2017). Keeping this key difference in mind, the comparison here is only between the hermeneutics of legal thinking.

prudence to Scott Brewer's (1996) method for the analysis of arguments by precedent cases. Through reconstructing the *qiyās* procedure, they concluded that "the conceptual background underlying some specific argumentation patterns crucial in Civil Law might be closer to the perspective of Islamic Jurisprudence than to that one of Common Law" (Martínez-Cazalla et al. 2021, p.179).

My approach is in the direction already set forth by these insightful works (Hallaq, 1985; Martínez-Cazalla et al., 2021; Rahman et al., 2019; Young, 2017). Going further, the attempt here is to address a parallel in methodological orientation, which I would call 'logic of law'. Taking the problem of 'justification of analogy in law', I argue that the general lines of scholarly approaches to analogical arguments in both traditions are three: one that rejects analogy, the other justifies it on legal grounds and the third that justifies it on logical grounds. The third, arguably the most successful exposition in both traditions, is strikingly similar. The approach of the logic of law in both traditions incorporates the logical categories of abduction and defeasibility to justify the legal analogy.

For the purpose of this comparative analysis, I take works by the illustrious Muslim jurist-logician Abū Hāmid al-Ghazzālī (d. 1111); *al-Mustaṣfā* in legal theory and *al-Muntaḥal* in legal dialectics. *al-Mustaṣfā* is considered to be a high point in the development of Islamic legal theory, which drew inspiration from the Aristotelian and Stoic traditions of logic, while establishing many new indigenous methods of Islamic legal reasoning (al-Ghazzālī 2018; Böwering and Mirza 2013; Moosa 2013). One significant shift in al-Ghazzālī's approach to legal philosophy from his predecessors is his emphasis on structuring legal arguments in the syllogistic form, in the fashion of logicians (Hallaq 1990; Opwis 2019, p. 96), whereas his predecessors were exclusively confined to law itself to explain the legal theory.

Within contemporary scholarship, the justification of analogy has been a subject of sustained debate across both philosophical and legal traditions. Both of these traditions are often exclusive to each other; philosophical inquiry tends to confine itself to formal logical analysis, whereas legal theory frequently appeals to psychological, sociological, or persuasive forces as justification. A third influential approach integrates logical analysis with legal reasoning and seeks

to ground the rational force of analogy in strictly logical terms (Lamond 2014, p.572). This paper focuses on two prominent representatives of this approach: Scott Brewer, from the legal-philosophical tradition, and Douglas Walton, from the field of informal logic. What unites their work is a shared commitment to explicating the logical structure of analogical reasoning in law. In the following, I will analyse the discursive forms of each tradition in its own problem space, starting with the contemporary legal theory and then proceeding to Islamic legal reasoning.

1. The Problem of Analogy in Law

Analogical argument is the most confused form of argument among all, yet the most commonly used one. “It is the way all of us respond to countless ordinary problems in everyday life”, and it is especially prominent in legal reasoning, “so much so that they are regarded as its hallmark” (Weinreb 2005, p. 4). Given that the legal system must strive for consistency, predictability, and replicability, it necessarily relies on previous verdicts as guiding precedents (Lamond 2016). Hence, analogy can be considered the cornerstone of not just contemporary or Islamic legal systems but at the heart of “the very idea of distinctively legal reasoning” or the central component of what we mean when we say “thinking like a lawyer” (Schauer and Spellman 2017, p. 249, 261; Weinreb 2005). Despite this immense significance and pervasiveness, there is a significant lack of agreement on its structure and rational force.

This arises from an inherent complexity of analogy, that it is the most persuasive argument, yet it is also the most susceptible to fallacies. There are several instances where “argument from analogy is so strongly persuasive because of striking similarities between the two cases at first sight that it overwhelms all resistance, but later, subject to critical questioning, it deflates” (Walton et al., 2008, p. 51). This is more confusing when we look into the logical structure of analogical arguments. By comparing a case to another on the basis of some specific similarities, there is also enough room for someone to infer from a number of dissimilarities (Brewer 1996, p. 932). Based on this problem, Monroe Beardsley, a twentieth-century logician who is sometimes considered to be a pioneer in informal logic,

concluded that: “analogies illustrate, and they lead to hypotheses, but thinking in terms of analogy becomes fallacious when the analogy is used as a reason for a principle. This fallacy is called the argument from analogy,” (Beardsley 1954, p. 107) and it is because “no matter how many characteristics a pair of things have in common, there may be any number of other ways in which they are different” (Beardsley 1954, p. 108).

Law professors usually tell their students that they need to think logically, but arguments from analogy are not logically valid; that is, they cannot achieve the highest degree of rational force, where the truth of the premises guarantees the truth of the conclusion (Larson 2018, p. 665). This assumption is a result of at least two ways of approaching analogy in legal philosophy. Scott Brewer categorises these two approaches as sceptics and mystics. Sceptics doubt the rational force of legal analogy. Though they recognise the importance of analogical reasoning in imaginative thinking, they view it with distrust when used as a means of proof (Brewer 1996, p. 953). The most pointed indictment in this form came from Larry Alexander. For him, the central problem is that analogical reasoning starts with the prior decisions of others, and since judges are fallible, some of these prior decisions are sure to be wrong, which makes the basic foundation of analogy flawed (Sherwin 1999, p. 1184). Others in the camp argued that analogy is either a form of deductive reasoning (arguing from a rule in terms of law), a perilous form of induction, a rhetorical persuasive method or nothing at all (Posner 1990, p. 86; Schauer 1991).

Mystics who defended analogical reasoning as a legitimate form of legal reasoning emphasised the persuasive force of analogy without explaining the rational force behind it. The virtue of analogical inference for Henry Hart and Albert Sacks was that it forces courts to decide cases in a manner that is consistent with the expectations of the parties because it relies on previous decisions (Hart and Sacks 1994, p. 398), for Ronald Dworkin reasoning by analogy is a source of ‘integrity’ in law which helps to have consistency by fitting to both prior decisions and present problems (Dworkin 1986, pp. 94–96) or for Cass Sunstein, it is that people who disagree at the level of comprehensive theory may nevertheless be able to agree on mod-

est principles of similarity (Sunstein 2018). All these analyses fundamentally relied upon a psychological, sociological or persuasive force that validates the analogical reasoning as a legitimate legal heuristic rather than having a clear logical, rational force that the premises can warrant the conclusion.

2. Logic of Analogy in Law

Addressing the problem of proper justification of analogy in law, Brewer (1996) was among the first to propose that analogical reasoning in law has not just a persuasive or psychological force, but what he called a rational force. Rational force of an argument, as he explains, is “the degree to which the form of the argument yields a reliable judgment about the truth of its conclusion based on the assumed truth of its premises”. In other words, he set out to explain how the premises will lead to the conclusion, which both the mystics and sceptics rejected.

In his analysis, rather than categorising analogy as a distinct form of reasoning, he explained its structure as constructed of two forms of arguments: “a patterned sequence of distinct reasoning processes, including abduction and either induction or deduction (Brewer 1996, 954). In this method, to make a judgment of a new case, the judge is ‘abducting’ an ‘analogy warranting rule’ (AWR) from a few gathered precedent examples, then confirming the rule by testing it against possible ‘analogy warranting rationales’ (AWRa). If the AWR survives this examination, it warrants the conclusion that what is true for the precedent examples is also true for the problem case.

Abduction, introduced into philosophical debates by American philosopher and logician Charles Sanders Peirce, is a form of logical inference that seeks the simplest and most likely conclusion from a set of observations. Consider the following example: “You happen to know that Tim and Harry have recently had a terrible row that ended their friendship. Now, someone tells you that she just saw Tim and Harry jogging together. The best explanation for this that you can think of is that they made up. You conclude that they are friends again.” What leads us to the conclusion, and what, according to a considerable number of philosophers, may also warrant this conclusion, is precisely the fact that Tim and Harry’s being friends again

would, if true, best explain the fact that they have just been seen jogging together (Douven 2021).

When abduction is applied to analogy, the reasoner is analysing a set of previous examples to abduct a rule (AWR) that can explain why they were considered analogous or disanalogous. This abducted rule will become rationally compelling to warrant the same conclusion in new problem cases after its cross-examination with analogy-warranting rationales. For example, consider the case of a trained dog that sniffs closed luggage left in a public place and signals to the police that it contains drugs. Now, to settle whether it is a search to which the Fourth Amendment (information obtained as a result of the sniff is not admissible in evidence against the owner of the luggage, because the sniff violated his constitutional rights) applies. Here, a judge may gather prior cases of search: if a police officer in a public place sees something in plain view, it is not a search for purposes of the Fourth Amendment; whereas if he opens luggage and observes something plainly visible inside, it is a search; if he overhears a conversation in a public place, it is not a search; but if he listens surreptitiously to a conversation in a private place, it is a search; and so forth. After analysing all these instances, a judge extracts a rule that can explain the conditions of classifying something as a search to which the Fourth Amendment applies. Brewer calls this abducted rule an “analogy-warranting rule” or AWR. Now the reasoner examines this abducted rule by comparing it to similar phenomena and other relevant legal doctrines, which is called analogy warranting rationales and checks whether it will contradict the rule. If it survives this process, the AWR is determined and applied to the problem case (Weinreb 2005, 22–28).

Commenting on Brewer’s analysis of analogy, scholars identify one fundamental problem. Once the three stages are complete, it relies on a deductive inference and analogy becomes redundant (Walton et al., 2008; Weinreb, 2005). The crux of this critique lies in the approach’s underlying assumption that once an analogy is established, it becomes irrefutable. In contrast, scholars like Douglas Walton emphasise the defeasible nature of analogy (Larson 2018, p. 692). The core premise of defeasible reasoning is that most arguments have both a proponent and an opponent, meaning that, although the arguments logically warrant the conclusion, they are open

to challenge. In defeasible arguments, “premises supply good reasons for accepting their conclusions” but “challenges from critics or simply the discovery of additional information can ‘defeat’ them” (Blair, 2012, pp. 120–121; Walton et al., 2008). Unlike Brewer’s model, a defeasible argument does not ultimately become a deductive one, but always posits the possibility of being retracted when new information arrives.

Consider the famous example of *Tweety*. If someone reasons that, “Tweety is a bird; birds fly; therefore, Tweety flies”, this is a reasonable conclusion. If an opposing viewpoint offers a counter-argument that “Tweety is a penguin; penguins cannot fly; therefore, ‘Tweety can fly’ is erroneous”, we might be obliged to retract the claim in this situation. An argument is defeasible, “that is, as holding generally as a reasonable argument, but is subject to attack and even defeat by reasonable counter-arguments or critical questioning of the right kind” (Walton et al., 2008, p. 135). According to traditional logic, the above conclusion about *Tweety* would be considered a fallacy because of the inconsistency, but since the argument is generally accepted and reasonable, it is a defeasible form of reasoning, which can warrant a rational conclusion, yet is prone to defeasibility in a situation when new information arrives.

Analogical arguments, analysed as a form of defeasible reasoning, can warrant a conclusion but could be retracted in a defeasible situation. Although the arguer infers a conclusion through similarities between the two cases, one does not take its truthfulness deductively. What it needs is a dialogical approach, where any argument can expect an opponent. As in the case of *Tweety*, the rationale of the argument is compelling until a critical question is raised. In such a scenario, the argument does not evolve into a deduction where analogy becomes redundant, but rather, the analogy stands on with a possibility of retracting in a defeasible situation. According to Walton, “a defeasible approach to analogy in legal arguments is stronger than a deductive or inductive one” (Macagno and Walton 2009, p. 155).

For Walton, a scheme and a set of appropriate critical questions are essential to evaluate any defeasible form of argument (Walton et al. 2008). “Argumentation schemes are forms of argument (structures of inference) that represent structures of common types of argument used in everyday discourse, as well as in special contexts

like those of legal argumentation and scientific argumentation” (Walton et al., 2008, p. 1). Since analogy warrants only a defeasible conclusion, an appropriate set of critical questions that can demonstrate the defeasibility of the argument if raised in an appropriate context is essential. “If the respondent asks one of the critical questions matching the scheme and the proponent fails to offer an adequate answer, the argument defaults” (Walton et al., 2008, p. 9). For an analogical argument when applied in law, the following scheme and four critical questions are relevant (Walton et al., 2008, p. 58):

Major Premise: Generally, case C1 is similar to case C2
Similarity Premise: The similarity between C1 and C2 observed so far is relevant to the further similarity that is in question
Minor Premise: Proposition A is true (false) in C 1
Conclusion: Proposition A is true (false) in case C2
Appropriate set of Critical Questions:
CQ1: Is *A* true (false) in Case 1 (original case)?
CQ2: Are Case 1 and Case 2 similar in the respect cited?
CQ3: Are there important differences (dissimilarities) between C1 and C2?
CQ4: Is there some other case C3 that is also similar to C1 except that *A* is false (true) in C3?

One basic limitation of the argumentation scheme approach, as Macagno et al. (2017) recognized later, is that “the argumentation scheme and critical questions do not involve the methods to determine what is an important similarity/dissimilarity for the purpose of the inference; and defining and assessing the respects under which the two terms are considered as similar” (Macagno et al. 2017). The scheme approach does not fundamentally help to construct an analogy; rather, they analyse its structure once it is constructed and evaluate it on the basis that it has only a defeasible validity.

In the following, I demonstrate that al-Ghazzālī’s approach to analogy anticipates an integrated version of Brewer’s analogy abduction and Walton’s evaluation of defeasibility. Al-Ghazzālī, to demonstrate that analogical reasoning in law can warrant the conclusion logically, developed a methodology of extracting the properties that are relevant for the extension of the ruling. This extraction (*is-tanbaṭa*) of properties and the extension are deemed only probable

(*ẓanniyy*) in its conclusion, that it can be challenged (*qadh*) when a proper question/objection (*suāl/i'atirāḍ*) is raised. The original weight of the argument is restored if the proponent offers a successful answer (*jawāb*) to the objection. Unlike Walton, al-Ghazzālī's possible patterns of objection are not just four, but many more and importantly, he outlines patterns of possible ways of answering each objection, which is not explored in the argumentation scheme works.

3. Rational Force of Qiyās

Conceptualising the structure of legal thinking tends to emerge when controversies occur about legal practice. In the Islamic tradition, debates on the structure of legal thought began as early as the formative period of Islam, arising in response to disputes over the legitimacy of legal practices. It was not the law that triggered controversies, but the authority on which law-making was relied upon. The foundational sources of law, the Qur'an, the Prophet's sayings and actions (*hadīths*), and *Ijmā'* (consensus), offered very few generalised rules. Instead, they provide a limited number of general norms alongside a corpus of particular rulings and precedents. To address novel circumstances, scholars had to either extrapolate the general principles or draw analogies with instances found in primary sources. The practice of legal comparison soon became the predominant method of jurisprudence. However, the method of legal comparison (*muqāyasa*) came under sharp critique by certain jurists who viewed it as dangerously arbitrary in the realm of divine law. It was at this point that scholars on both sides set out to define the rationale behind their interpretative practices, developments that eventually crystallised into the science of legal theories or *uṣūl al-fiqh* (Hallaq 1987).

Among the early sceptics of legal comparison (*qiyās*) was Ib-rāhīm al-Nazzām (d. ca. 845), who is often regarded as the first systematic rejectionist of *qiyās*. He questioned how one could certainly arrive at a legal judgment without an explicit statement from the revelation. For him, Islamic law is characterised by such inconsistencies when measured by human standards; there is simply no place for comparison. He asks that "the (divine) law, for example, allows a man to look at the hair of a beautiful slave girl despite the lustful thoughts this may arouse but forbids him to look at the hair of a free

woman, however ugly she may be” (Zysow 2013, 169). To extend a ruling through comparison, there are simply no grounds.

A second major objection to legal comparison lies in its epistemological status as a form of probable reasoning. A comparison is always logically probable; hence, both sides of a probable conclusion can claim legitimacy. Qādī Nu‘mān, a tenth-century Shī‘ī jurist, maintained that reasoning based on probability inevitably leads to contradictions, an outcome incompatible with the consistency of divine law (Hallaq 1987, p.67). A much-renowned figure in this debate, the eleventh-century Andalusian jurist-logician, Ibn Ḥazm similarly challenged the very premise of analogy by questioning its logical structure: “In a world in which everything bears some resemblance to everything else, how does one even begin to lay down the steps that lead to a rule of God (based on similarities)” (Ibn Ḥazm, 1926, p. 1:48; Zysow, 2013, p. 185). For Ibn Ḥazm, a staunch proponent of Aristotelian logic, analogical reasoning fails to meet the formal requirements of syllogistic deduction. The only valid mode of proof, he insisted, was deductive reasoning: “the method of valid proof without which nothing is sound and the proof which is always sound” (Ibn Ḥazm 1926, 8:582).

In response to these sceptics, proponents of analogical reasoning were compelled to defend its validity. The most cogent way to justify was to anchor it in the authority of revelation. It was done through demonstrating its precedents in the Qur’ānic, the Prophetic and early companions’ practices. The underlying concern is to maintain consistency in the source and authority of the law: if a case was settled by the Qur’an and subsequently extended to a comparable case by the Prophet or his companions, then the practice of legal comparison must be legitimate.

This explanation does not rely on any logical arguments. The separation between logic and legal reasoning seems to be strictly imposed. The validity of legal hermeneutics rested on the authentic sources of law itself, rather than any exterior tools. It reflected in Ibn Ḥazm’s complaint about some of his contemporaries, who accused him of “refuting what is legal with what is logical” (Ibn Ḥazm, 1987, p. 83). For these pro-analogist critics, formal logic in the realm of legal thinking corrupts the latter. The practice of legal comparison was not upheld by its logical structure but by the sanction of divine

or Prophetic authority (al-Māwardī 1999, 18:137–38; al-Sarakhsī 1975, 2:128–29). As the Andalusian jurist Ibn Rushd succinctly stated that *qiyās* may be logically admissible (*jā'iz fī al-'aql*), but it is made necessary (*wājib*) by the Shari'a² (Ibn Rushd, 1988, p. 33).

This effort to distinguish legal analogy from formal logic is clearly articulated by the Ḥanafī jurist al-Jaṣṣāṣ, who draws a line between Aristotelian syllogism and Islamic legal reasoning. According to him, in Aristotelian logic, the conclusion necessarily follows from the premises with equal certainty; in legal analogy, by contrast, the ruling in the original case is certain, while the inferred ruling in the new case remains merely probable. As such, analogical reasoning is inherently open to contestation and the possibility of divergent rulings, a feature not possible in Aristotle's logic (Shehaby 1975, pp.41–45). Aristotelian logic was viewed as inadequate for the needs of Islamic legal hermeneutics. The framework of legal reasoning was not constructed on logical forms but rather articulated through semantic and linguistic categories (Opwis, 2025, p. 5), borrowing almost nothing from Aristotelian logic beyond the rudimentary forms of conjunctive and disjunctive syllogisms (Hallaq 1990, 316–18). In short, the justification for legal comparison was rooted in textual and jurisprudential grounds, while logic remained conceptually and methodologically external to the core of Islamic legal theory.

4. Al-Ghazzālī's Approach

Al-Ghazzālī emerged within this long-standing debate over the epistemological foundations of legal reasoning. His jurisprudential lineage goes back to the pro-*qiyās* camp, while he also remained committed to Aristotelian logic, a commitment shaped by the intellectual climate of his time. Logic, by then, had gained considerable prestige among the learned elites. As Gutas observes, “all the sciences which actually used (logical proof) gained in respect in the eyes of the learned” (2002, p. 281). This might explain the enduring influence of Ibn Ḥazm among the Andalusian intellectuals. He insisted on a

² *al-Qiyās: Fa-al-ta'abbud bihi jā'izun fī al-'aql, wājibun fī al-shar'*

logical foundation for legal hermeneutics and argued that only what is logically valid is legally valid.

Unlike many of his predecessors in the pro-*qiyās* camp, al-Ghazzālī lived in a scholarly milieu that was heavily shaped by Ibn Sīnā's application of logic in philosophy and Ibn Ḥazm's logic-based legal reasoning. The arguments from the authority of the scriptures were not sufficient to establish the validity of analogy in this scholarly milieu. Al-Ghazzālī himself was an accomplished logician, having authored more than five independent treatises on logic. His legal-philosophical project thus sought to integrate logic into the framework of legal theory. Unlike Ibn Ḥazm, al-Ghazzālī did not ground legal validity exclusively in logic; rather, he synthesised logical analysis with traditional jurisprudential arguments. For him, the legitimacy of legal comparison was affirmed not only by scriptural precedents but also by the coherence of its logical structure.

The objective of developing a logical structure for the existing body of legal theories is loud in the unique structure of his magnificent work, *al-Muṣtaṣfā*. He dedicated an entire section to Aristotelian (and Stoic) logic. When comparing his works to his predecessors such as al-Jaṣṣāṣ (d. 980), Abū l-Ḥusayn al-Baṣrī (d.1044), and his teacher al-Juwaynī (d.1085), it is apparent that he is purposefully structuring his legal arguments in the syllogistic form of demonstrative proof (*burhān*); his predecessors are much less concerned about arranging their arguments in a logically correct fashion (Opwis, 2019, p. 96). Al-Ghazzālī's approach was a major shift as logic became an integral part of legal theory and part of the madrasa curriculum in legal training, as it is clear in the works of successive scholars such as Fakhr al-Dīn al-Rāzī (d.1210), Ibn Qudāma (d.1223), al-Āmidī (d.1234), and Ibn al-Ḥājjib (d.1248) (Hallaq, 1990; Opwis, 2019).

According to Felicitas Opwis (2019), al-Ghazzālī's employment of syllogistic reasoning to *qiyās* indicates an attempt to elevate the epistemological status of legal *qiyās* to the level of deductive certainty, characteristic of Aristotelian syllogisms; rulings arrived in *qiyās* are logically certain. She demonstrates how al-Ghazzālī reformulated the legal *qiyās* into syllogistic forms and their logical certainty. For her, the keyword *yaqīn* (certainty) is central to al-Ghazzālī's analysis. Though her interpretations are insightful, it is

limited by her exclusive reading to the first section of al-Ghazzālī's work, which deals with deduction as in syllogistic logic; and she overlooks some key discussions on the legal *qiyās*, which appear in the last sections of the book. In complement to Opwis's analysis, I turn to these latter sections to argue that, although al-Ghazzālī grounds his justification of legal *qiyās* in syllogism, he also clearly distinguishes between deductive logic and legal *qiyās*.

In a standard syllogism, the conclusion necessarily follows from the premises through formal deductive reasoning. For al-Ghazzālī, however, *qiyās* in legal reasoning does not operate on this same syllogistic structure. Al-Ghazzālī states that his conception of legal *qiyās* departs from the philosophical model that "the combination of two premises from which the conclusion necessarily follows" (al-Ghazzālī 1993, p. 281). What fundamentally distinguishes legal *qiyās* from deductive argument is that, in the former, the conclusion does not follow necessarily from two premises alone. Rather, it hinges on a third element, the shared factor (*'illa*) between the precedent (*aṣl*) and the new case (*far'*), which justifies the extension of the ruling.

The spirit of Ghazzālian logic, one might say, goes against the commonly held position that an argument is always a combination of two premises, but rather a third premise of the shared factor is what renders both cases similar (*musāwvāt*). This shared factor is one of the four essential components of a legal *qiyās*, alongside the original case (*aṣl*), the target case (*far'*), and the ruling (*ḥukm*). In this framework, the *aṣl* and *far'* correspond to the two premises of a logical syllogism, while the *ḥukm* stands in as the conclusion. Yet it is not the two premises alone that necessitate the conclusion; rather, it is the identification of a valid *'illa* that warrants (*yūjibu*) the transference of the ruling from the original to the new case. The crucial task for a jurist in a legal *qiyās* is, therefore, the extraction (*istinbāt*) of *'illa*, the relevant property(ies) that occasioned the ruling in the original case.

For al-Ghazzālī, the extraction of the *'illa* is neither an act of intuition nor a matter of arbitrary selection; rather, it is a structured and disciplined logical extraction (*istinbāt*). In light of this methodological emphasis, recent scholarship has identified *istinbāt* as a sophisticated premodern form of abductive reasoning (Rahman & Young,

2022). Since abduction serves to justify probable inferences, Islamic legal theorists employed it to demonstrate that inherited legal principles and rulings were not the result of conjecture or subjective preference, but instead the outcome of a logically grounded process (Ahmed 2012). In al-Ghazzālī's case, this entailed formulating a model of *istinbāṭ* that could logically account for and defend the rulings upheld by his legal school, thereby situating those rulings within a rationally coherent framework of legal reasoning.

5. *Istinbāṭ al-'Illa* (the Abduction of Occasioning Factor)

Since the justification of legal *qiyās* is strictly logical in al-Ghazzālī's scheme, what becomes crucial is an exposition of the logical architecture underlying *istinbāṭ* in law. In al-Ghazzālī's account of *istinbāṭ* as a structured process of reasoning, what takes place is one or a combination of three logical operations: *sabr wa-taqṣīm* (analytical disjunction and exclusion), *ṭard wa-al-'aks* (co-presence and co-absence), and the evaluation of *munāsabah* (relevance) (al-Ghazzālī 1993, 315; Young 2019; 2024; 2017; Rahman & Young, 2022). *Sabr wa-taqṣīm* refers to the systematic enumeration of all apparent features of the original case in order to assess which among them occasioned the ruling. The rationale is straightforward: if a ruling has been given in a case, it must be due to some property inherent in that case (al-Ghazzālī 1993, p.311). Once these properties are identified, they are subjected to a process of elimination. This exclusion typically proceeds through one of two routes: *ṭard wa-al-'aks* or *munāsabah*.

Although al-Ghazzālī does not explicitly link analytical exclusion with the two methods mentioned above, his practical application of exclusion consistently relies upon them. For him, the exclusion of candidate properties must rest upon a logical proof (al-Ghazzālī 1993, 311) and in most instances, that proof takes the form of either *ṭard wa-al-'aks* or *munāsabah*. The method of *ṭard wa-al-'aks*, also known as *dawrān*, has been carefully examined by recent studies (Rahman and Young 2022; Young 2019; 2024). Al-Ghazzālī defines the principle as a method for evaluating whether a property exhibits consistent correlation with the ruling, both in its presence and its absence (al-Ghazzālī 1993, p. 315). In other words, when a ruling (X)

consistently appears in all cases where a particular property (A) is present (*tard*), and disappears wherever (A) is absent (*'aks*), (A) may be identified as the effective cause of the ruling. Only then, as Hallaq puts it, “the jurisconsult confirms that the relationship between the rule and the feature is one of efficacy (*ta'thīr*), namely, that the rule is entailed by that feature” (Hallaq 1997, p. 90).

Nevertheless, this method is constrained by a fundamental limitation. To apply *tard wa-al-'aks* within the framework of analytical exclusion, the jurist must have access to a sufficient number of precedents or at least variations of a precedent case. Without a comparative field of cases that consistently exhibit or lack specific properties in relation to the ruling, it becomes impossible to test the efficacy of those properties in warranting the rule. In the absence of such precedents, jurists frequently resort to an alternative method: *munāsaba* (relevance).

Munāsaba, or the assessment of a property's relevance to a ruling, serves as the alternative method for determining whether a given feature can function as the effective *'illa*. For al-Ghazzālī, relevance is grounded in the principle of *maṣlaḥa* (welfare) (al-Ghazzālī 1993, p. 311). A feature qualifies as relevant, and thus potentially warrants the conclusion, if it either promotes benefit (*jalb al-manfa'a*) or prevents harm (*daf' al-mafsada*) with respect to one of the five fundamental human interests in Islam: religion (*dīn*), intellect (*'aql*), life (*nafs*), property (*māl*), and lineage (*nasl*). These five faculties, canonically identified since al-Ghazzālī, constitute the foundational objectives (*maqāṣid*) of Islamic law. The degree of a property's relevance is further evaluated by classifying it as indispensable (*ḍarūrī*), necessary (*ḥājī*), or merely commendable (*taḥsīnī*) in preserving these objectives (al-Ghazzālī 1993, 174)³. By evaluating the various properties of a case through the principle of relevance, the jurist can establish a valid justification for applying the ruling to other instances exhibiting the same properties.

³ For detailed exposition on *Maqāṣid al-Sharia*, see, (Auda 2008; Nassery, Ahmed, and Tatari 2020)

To illustrate, consider the case of wine prohibition. Two properties found in wine, intoxication and strong odour, are consistently present and could both appear, at first glance, to be effective candidates under *ṭard wa-al-‘aks* (al-Ghazzālī 1993, 315). However, when assessed through the lens of *munāsaba*, it becomes clear that the strong odour does not harm any of the five faculties, whereas intoxication poses a significant danger to the intellect. The necessity of preventing harm to the intellect thus justifies the prohibition of wine on the basis of intoxication. In this way, although both properties co-occur with the ruling, only intoxication satisfies the criterion of relevance and is thereby identified as the effective *‘illa* (al-Ghazzālī 1993, 315). When a new similar case is considered, say smoking weed or cigarettes, the legal comparison with drinking wine will lead to an analogy or disanalogy, evaluating the grounds mentioned.

6. The Probable Nature and Critical Questions

In one sense, al-Ghazzālī’s logical account of how *qiyās* leads to a legal conclusion is a response to the critique advanced by the anti-*qiyās* scholars, that analogical reasoning relies on arbitrary judgment as its conclusion is only probable and inevitably results in disagreement and therefore cannot serve as a reliable basis for divine law. In response, al-Ghazzālī offers a clear explanation of the rational force of probable reasoning (*zanniyy*). Rather than aiming to establish deductive certainty, al-Ghazzālī contends that probable reasoning possesses a rational force, that it can, under proper methodological conditions, warrant a legal conclusion. Although such reasoning does not yield certainty, it nonetheless produces a justified conclusion, one in which the jurist “feels confident about the veracity of something probable” (al-Ghazzālī 1993; Opwis 2019, p. 103). This confidence is not a matter of intuition or personal conviction (*taḥakkum*) alone, but the outcome of a logically explicable process, demonstrated in the structured procedure of *istinbāt*.

In Islamic legal theory, any *zanniyy* argument carries rational force only until an opponent (*mutanāẓir/khaṣm*) raises an objection. In other words, a probable inference and the conclusion it yields are defeasible as they remain open to challenge. The anticipation of such

counterarguments, which may undermine the initial claim and the explanation of their patterns, is a necessary component of any *zannī* argument. The discipline of *‘ilm al-jadal* (dialectics), a subfield of legal theory, emerged precisely to address these defeasible moments, not only in legal *qiyās*, but across a broader spectrum of probabilistic legal arguments (al-Ghazzālī 1993, p. 333, p. 342; Siddiqui 2021; Komath 2024). *Jadal* offers a series of questions (*suāl*) that can be employed to refute or weaken the proponent’s argument. Al-Ghazzālī dedicated a single work, *al-Muntaḥal* (2004) to this domain, wherein he systematically outlines a series of objections that can be raised against *qiyās*.

In this text, al-Ghazzālī presents more than nine general types of objections, each articulated with multiple sub-forms and variations (Komath 2024). Each objection is followed by a corresponding set of possible responses or answers for defending the original argument. These answering patterns underscore a central logic of *jadal*: just as objections aim to expose the defeasibility of an argument, they themselves remain open to counter-objection. Since neither the original claim nor the objection rests on deductive certainty, both possess only *zannī* (probabilistic) force. In this dialectical framework, al-Ghazzālī, like many Muslim scholars of *jadal*, always accompanies each critical question with a range of model answers.

What follows is a concise reconstruction of these objections and an example of answer models for one of the following objections (2004).

1. **Al-Mumāna‘a** – Is the ruling in the original case (OC) true?
2. **Muṭālabat bi al-‘illa** – Is the identification and verification of the occasioning factor (OF) valid?
3. **Fasād al-waḍ‘** – Is the proposed OF too general, vague, or un-specific to serve as an effective basis for the ruling?
4. **Al-Qawl bi mujib al-‘illa** – Does the confirmed occasioning OF support the ruling under discussion, or does it point to a different ruling?
5. **Al-Munāqaḍa / Naqq** – Is there a counterexample, a third case, where the proposed OF is present but the ruling does not follow?
6. **Al-Qalb** – Does the proposed OF equally or more plausibly support another ruling?

7. **‘Adam al-Ta’thīr** – Can the effectiveness (*ta’thīr*) be established across the OC, the ruling, the proposed OF, and the target case (TC)?

8. **Al-Farq** – Are the OC and TC similar in all legally relevant respects, or is there a difference that undermines the analogy?

9. **Al-Mu‘āraḍa** – Is there a counter analogy that establishes the opposite case?

Al-Ghazzālī offers answer models for refuting each of these objections. For instance, consider the four patterns of answer to the fifth objection, *naqd* (al-Ghazzālī 2004, pp. 453–58).

1) There is a relevant property in the third case that makes it different from the OC.

2) Ruling in the third case is false.

3) The OF in the third case is different from that in the original case.

4) The OF has more relevant properties in one of the cases than are considered.

The role of answering patterns in the evaluation of *ẓannī* reasoning is central. An argument can be challenged; it can also be defended, and this exchange may continue through successive rounds of dialectical engagement. In such a framework, the rational force of both the proposition and opposition is logically equivalent. In this sense, a disagreement over a probable conclusion can neither be rejected nor resolved; rather, both are accommodated, since both positions can maintain internal coherence within the frames of dialectical reasoning. In other words, disagreement itself follows a logic, one that allows for the coexistence of opposing explanations within the legal framework. This is the essence of a true *jadal*: a *jadal* or *mu-jādala* is not aimed at uncovering a singular truth or resolving conflict, but at demonstrating that rival positions can be equally valid, and thus, both may be legitimately practised.

This framework of probabilistic reasoning and dialectical engagement offered a compelling logical foundation for the enduring phenomenon of legal plurality in Islamic law, wherein divergent rulings are upheld and practised across various *madhāhib* (schools of law). The methodology of *istinbāt*, coupled with structured question-and-answer exchange, provided a rational system for legal disagreement (*ikhtilāf*), demonstrating that any legal position grounded in a

reasoned process of *istinbāt* and dialectic retains normative validity. In this model, the legitimacy of a ruling does not rest on exclusive truth claims, but on the integrity of its reasoning, a principle that legitimises the coexistence of multiple, equally valid legal conclusions within the Islamic tradition.

7. Conclusion

My aim in this paper has been to draw out the parallels between debates in contemporary and Islamic legal theory. Throughout the discussion, we have seen that jurists and logicians in both traditions, despite being separated by historical, philosophical, and cultural distances, grapple with similar foundational concerns in their attempts to articulate the hermeneutics of their respective legal systems. The sceptical argument that legal analogy lacks rational force unless reducible to deductive reasoning echoes the critiques of figures like Ibn Ḥazm. In response, defenders of analogy in both traditions have insisted that legal reasoning must be internally consistent and anchored in legal needs. Pre-Ghazzālīan Muslim legal theorists frequently distinguished legal hermeneutics from formal logic, asserting that the legitimacy of a legal argument lies not in demonstrative certainty but in the coherence, continuity, and normative authority of the juridical tradition. As for the ‘mystics’ in contemporary legal reasoning, the consistency of the law’s sources justified the use of legal comparison, not as a valid form in logic.

It is in this background that thinkers such as al-Ghazzālī, Scott Brewer, and Douglas Walton advanced their respective accounts of the rational force underlying legal analogy. While differing in language and conceptual frameworks, all three articulate justificatory models in logical and not strictly deductive terms. Brewer theorised analogy as a form of abduction centred on what he termed the Analogy-Warranting Rule (AWR), which he identified as the pivotal operation in analogical reasoning. For him, the strength of a legal analogy lies in the critical testing and refinement of this warranting rule across cases with shared rationales. Centuries earlier, al-Ghazzālī proposed a structurally comparable model: the identification of the *‘illa* (occasioning factor) through *istinbāt*, a process akin to abduction, and evaluation through the principles of *dawrān* and *munāsaba*.

Like Brewer, al-Ghazzālī sought to extract the operative rule that justifies the transfer of a legal ruling from one case to another, grounding analogy not in legal needs, but in logical justification.

Walton, on the other hand, developed a defeasible model of analogical reasoning. While Brewer acknowledged the defeasibility of analogical arguments, the two theorists emphasised different dimensions: Brewer explains how analogies are constructed and justified, whereas Walton develops on how they are evaluated, challenged, and potentially refuted. Al-Ghazzālī, notably, appears to anticipate and integrate both perspectives. Along with the *istinbāt*, his theory of dialectical reasoning (*jadāl*), outlines a structured system of *su'āl* (objections) and *jawāb* (answers) that closely parallels the critical questions framework proposed by Walton. This model serves to test the strength and vulnerability of probabilistic (*ẓannī*) arguments.

Al-Ghazzālī goes further: not only does he enumerate a wide range of critical questions, but he also formulates structured answering schemes (*jawāb*) for each, an element notably absent in Walton's model. While Walton acknowledges the possibility that a defeasible argument can retain its validity if an appropriate response is given to a critical question, his framework does not elaborate on these answering patterns. For al-Ghazzālī, however, this step is essential. His account of the rational force of *ẓannī* legal arguments is not merely a justification of the jurists' method, but also an exposition of how logical validity can accommodate disagreements within divine law. In legal *jadāl*, the aim is not to reach consensus, but to demonstrate that both sides of a dispute, each grounded in probabilistic reasoning, can sustain internal coherence. This is achieved through a dialogical procedure, where disagreement is not a lack of reason but a legitimate outcome of its structured application.

While both Islamic and contemporary legal traditions grapple with comparable challenges concerning the legitimacy and function of analogy, they diverge markedly in how logical justification operates within their respective jurisprudential frameworks. In Islamic legal theory, particularly as articulated by jurist-logicians like al-Ghazzālī, logic is not employed to secure a singular, definitive ruling, but rather to legitimise the possibility of multiple, divergent conclusions (*ikhtilāf*). This model does not undermine legal coherence; on the contrary, it undergirds the very structure of the Islamic legal

system, which fundamentally rests on the mutual coexistence and reciprocal validation of the four Sunni legal schools. Logic, in this context, serves as a grammar of pluralism, affirming that differing rulings can coexist.

This comparative study yields two key insights. First, it follows and disagrees with the assertion, common among certain cultural critics, that systems of reasoning are so culturally embedded as to render cross-traditional comparison inherently flawed. Disagreeing with this view, I have demonstrated that two distinct traditions of legal thought, Islamic and contemporary Western, exhibit striking parallels in their underlying concerns about the logic of legal thinking. Yet, this is not an attempt to validate Islamic thought by measuring it against Western categories of reason. Rather, I argue to seek insights that can modify and develop our current understanding of reason through searching for alternative answers in the non-Western world, where the same concern has been reflected upon and answered in different or similar ways. In this sense, this paper does not merely seek parallels; it also highlights meaningful divergences.

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References

- Ahmed, Rumea. 2012. *Narratives of Islamic legal theory*. 1st ed. Oxford Islamic Legal Studies. Oxford, U.K.: Oxford University Press.
- Al-Azem, Talal. 2017. *Rule-formulation and binding precedent in the madhhab-law tradition: Ibn Quṭlūbughā's commentary on the compendium of Qudūrī*. Islamicate Intellectual History, vol. 2. Leiden; Boston: Brill.
- ʿAuda, Jasser. 2008. *Maqasid al-shariah as philosophy of Islamic law: A systems approach*. London: The International Institute of Islamic Thought.
- Beardsley, Monroe C. 1954. *Practical logic*. New York: Prentice-Hall. <http://archive.org/details/practicallogic00bear>.
- Blair, J. Anthony. 2012. "Informal logic and logic." In *Groundwork in the theory of argumentation*, by J. Anthony Blair, edited by Christopher W. Tindale, 21:119–32. Argumentation Library. Dordrecht: Springer Netherlands.
- Böwering, Gerhard, and Mahan Mirza. 2013. *The Princeton encyclopedia of Islamic political thought*. Princeton, N.J.: Princeton University Press.
- Brewer, Scott. 1996. "Exemplary reasoning: Semantics, pragmatics, and the rational force of legal argument by analogy." *Harvard Law Review* 109 (5): 923–1028.
- Douven, Igor. 2021. "Abduction." In *The Stanford encyclopedia of philosophy*, edited by Edward N. Zalta, Summer 2021. Metaphysics Research Lab, Stanford University. <https://plato.stanford.edu/archives/sum2021/entries/abduction/>.
- Dworkin, Ronald. 1986. *Law's empire*. Cambridge, MA: Harvard University Press.
- Ghazzālī, Abū Hāmid al-. 1961. *Mi'yār al-'ilm fī fann al-mantiq*. Edited by Sulaymān Dunyā. Egypt: Dār al-Ma'ārif.
- . 1993. *Al-mustasfa*. Edited by Muḥammad ʿAbd al-Salām ʿAbd al-Shāfi. Lebanon: Dār al-Kutub al-'Ilmiyya.
- . 2004. *Al-muntaḥal fī 'ilm al-jadal*. Edited by ʿAlī bin ʿAbd al-ʿAzīz Umairīnī. 1st ed. Beirut: Dār al-Warrāq.
- Ghazzālī, Abū Hāmid al-. 2018. *Al-mustasfa min 'ilm al-uṣūl: On legal theory of Muslim jurisprudence*. Translated by Ahmad Zaki Mansur Hammad. Dar Ul Thaqaqah.
- Gutas, Dimitri. 2002. "Certainty, doubt, error: Comments on the epistemological foundations of medieval Arabic science." *Early Science and Medicine* 7 (3): 276–88.

- Hallaq, Wael B. 1985. "The logic of legal reasoning in religious and non-religious cultures: The case of Islamic law and the common law." *Cleveland State Law Review* 34 (1): 79.
- . 1987. "The development of logical structure in Sunni legal theory." *Der Islam* 64 (1). <https://doi.org/10.1515/islam.1987.64.1.42>.
- . 1990. "Logic, formal arguments and formalization of arguments in Sunni jurisprudence." *Arabica* 37 (3): 315–58.
- . 1997. *A history of Islamic legal theories: An introduction to Sunni usul al-fiqh*. 1st ed. Cambridge: Cambridge University Press.
- . 2009. *Sharī‘a: Theory, practice, transformations*. 1st ed. Cambridge: Cambridge University Press.
- Hart, Henry M., and Albert M. Sacks. 1994. *The legal process: Basic problems in the making and application of law*. Prepared for publication from the 1958 Tentative Edition by William N. Eskridge, Jr. and Philip P. Frickey. Westbury, NY: Foundation Press.
- Ibn Ḥazm, Abū Muḥammad ‘Alī. 1926. *Al-iḥkām fī uṣūl al-aḥkām*. Edited by Aḥmad Muḥammad Shākir. Vol. 8. Cairo: Maktabat al-Khānjī.
- Ibn Ḥazm, Abū Muḥammad ‘Alī. 1987. *Rasā’il Ibn Ḥazm al-Andalusī*. Edited by Iḥsān ‘Abbās. 3 vols. Beirut: al-Mu’assasa al-‘Arabiyya.
- Ibn Rushd, Abū al-Walīd Muḥammad. 1988. *Al-muqaddimāt al-mumahhidāt*. Edited by Muḥammad Ḥajjī. Vol. 3. Beirut: Dār al-Gharb al-Islāmī.
- Komath, Muhammed. 2024. "Defeasible reasoning in Islamic legal theory." *Informal Logic* 44 (3): 431–67.
- Lamond, G. 2014. "Analogical reasoning in the common law." *Oxford Journal of Legal Studies* 34 (3): 567–88.
- Lamond, Grant. 2016. "Precedent and analogy in legal reasoning." In *The Stanford encyclopedia of philosophy*, edited by Edward N. Zalta, Spring 2016. Metaphysics Research Lab, Stanford University. <https://plato.stanford.edu/archives/spr2016/entries/legal-reas-prec/>.
- Larson, Brian. 2018. "Law's enterprise: Argumentation schemes & legal analogy." *SSRN Electronic Journal*.
- Macagno, Fabrizio, and Douglas Walton. 2009. "Argument from analogy in law, the classical tradition, and recent theories." *Philosophy and Rhetoric* 42 (2): 154–82.
- Macagno, Fabrizio, Douglas Walton, and Christopher Tindale. 2017. "Analogical arguments: Inferential structures and defeasibility conditions." *Argumentation* 31 (2): 221–43.
- Martínez-Cazalla, M. Dolores, Tania Menéndez-Martín, and Shahid Rahman. 2021. "Parallel reasoning by ratio legis in contemporary jurisprudence: Elements for a dialogical approach." In *Dialog systems*, edited

- by Teresa Lopez-Soto, 22:163–87. Logic, Argumentation & Reasoning. Cham: Springer International Publishing.
- Māwardī, Abū al-Ḥasan ‘Alī ibn Muḥammad al-. 1999. *Al-ḥāwī al-kabīr fī fiqh madhhab al-Imām al-Shāfi‘ī*. Vol. 18. Beirut: Dār al-Kutub al-‘Ilmiyyah.
- Moosa, Ebrahim. 2013. “Abū Ḥāmid al-Ghazālī (d. 505/1111).” In *Islamic legal thought*, edited by David Powers, Susan Spectorsky, and Oussama Arabi, 261–93. Leiden: Brill.
- Nassery, Idris, Rume Ahmed, and Muna Tatari, eds. 2020. *The objectives of Islamic law: The promises and challenges of the maqasid al-shari‘a*. Baden-Baden: Nomos Verlagsgesellschaft mbH & Co. KG.
- Opwis, Felicitas. 2019. “Syllogistic logic in Islamic legal theory: Al-Ghazālī’s arguments for the certainty of legal analogy (qiyās).” In *Philosophy and jurisprudence in the Islamic world*, edited by Peter Adamson, 93–112. Berlin: De Gruyter.
- Opwis, Felicitas Meta Maria. 2025. *Ethics and analogy (qiyās) in 5th/11th-century Islamic legal theory*. Islamic Thought and History, vol. 1. Leiden; Boston: Brill.
- Posner, Richard A. 1990. *The problems of jurisprudence*. Cambridge, MA: Harvard University Press.
- Rahman, Shahid, Muhammad Iqbal, and Youcef Soufi. 2019. *Inferences by parallel reasoning in Islamic jurisprudence: Al-Shīrāzī’s insights into the dialectical constitution of meaning and knowledge*. Logic, Argumentation & Reasoning, vol. 19. Cham: Springer.
- Rahman, Shahid, and Walter Edward Young. 2022. “In existence and in nonexistence: Types, tokens, and the analysis of dawarān as a test for causation.” *Méthodos*, no. 22 (May).
- Sarakhsī, Abū Bakr Muḥammad al-. 1975. *Uṣūl al-Sarakhsī*. Edited by Abū al-Wafā’ al-Afghānī. Vol. 2. Beirut: Dār al-Ma‘rifah.
- Schauer, Frederick. 1991. *Playing by the rules: A philosophical examination of rule-based decision-making in law and in life*. Oxford: Clarendon Press.
- Schauer, Frederick, and Barbara A. Spellman. 2017. “Analogy, expertise, and experience.” *The University of Chicago Law Review* 84 (1): 249–68.
- Shehaby, Nabil. 1975. “The influence of Stoic logic on al-Jaṣṣāṣ’s legal theory.” In *The cultural context of medieval learning*, edited by John Emery Murdoch and Edith Dudley Sylla, 26:61–85. Boston Studies in the Philosophy of Science. Dordrecht: Springer Netherlands.
- Sherwin, Emily. 1999. “A defense of analogical reasoning in law.” *The University of Chicago Law Review* 66 (4): 1179.

- Siddiqui, Sohaira. 2021. “Jadal and qiyās in the fifth/eleventh century: Two debates between al-Juwaynī and al-Shīrāzī.” *Journal of the American Oriental Society* 139 (4).
- Sunstein, Cass R. 2018. *Legal reasoning and political conflict*. 2nd ed. Oxford: Oxford University Press.
- Walton, Douglas, Christopher Reed, and Fabrizio Macagno. 2008. *Argumentation schemes*. Cambridge: Cambridge University Press.
- Weinreb, Lloyd L. 2005. *Legal reason: The use of analogy in legal argument*. Cambridge: Cambridge University Press.
- Young, Walter Edward. 2017a. *The dialectical forge*. Vol. 9. Logic, Argumentation & Reasoning. Cham: Springer International Publishing.
- . 2017b. *The dialectical forge*. Vol. 9. Logic, Argumentation & Reasoning. Cham: Springer International Publishing.
- . 2019. “Concomitance to causation: Arguing dawarān in the proto-ādāb al-baḥṡh.” In *Philosophy and jurisprudence in the Islamic world*, edited by Peter Adamson, 205–82. Berlin: De Gruyter.
- . 2024. “The insufficiency of concomitance alone: ‘Co-presence and co-absence’ in the *Mukhtaṣar* of Ibn al-Ḥāḡib (d. 646/1249), with commentary from the *Sharḡ* of al-Īḡī (d. 756/1355) and the *Hāshiya* of al-Taftāzānī (d. 793/1390).” In *Islamic law in context*, edited by Omar Anchassi and Robert Gleave, 1st ed., 33–46. Cambridge: Cambridge University Press.
- Zysow, Aron. 2013. *The economy of certainty: An introduction to the typology of Islamic legal theory*. Resources in Arabic and Islamic Studies 2. Atlanta, GA: Lockwood Press.