Chapter 8 – Mosaic Theory, Conditional Probability, and the Totality of the Evidence

The evidentiary issue that has so far had the most direct impact on the contours of the law of detention involves the proper methodology for assessing the evidence that a judge credits in any given case, and, in particular, whether there is some role in that methodology for a “mosaic” theory of assessing information. For a while, the notion that the government might satisfy its burden of proof with reference to an array of intelligence data produced a strong negative reaction among some of the lower court judges. But their opinions, in turn, have provoked a sharp response over the past year from the D.C. Circuit. The law that is emerging from the D.C. Circuit’s reaction is highly favorable to the government’s position and represents a dramatic change in the landscape over a relatively short period of time. This change has affected the bottom line outcome in several habeas cases, in the sense that petitioners who prevailed under the standards the district judges were using at the time had the D.C. Circuit reevaluate the favorable result. Moving forward, the government can be expected to prevail under the D.C. Circuit’s standards far more frequently than it would have had the district court’s approach remained intact.

Several different questions have arisen under the general heading of what judges alternately term “mosaic theory,” or viewing evidence “as a whole.” First, what is the relationship, if any, between the mode of analysis employed by a judge performing habeas review and that employed by an analyst generating conclusions for inclusion in an intelligence product? Second, can proven factual allegations—such as attendance at an Al Qaeda training camp or a stay at a Taliban safehouse—that fail to satisfy the government’s burden of proof individually nonetheless collectively satisfy it? Third, can evidence that does not suffice on its own to prove a particular allegation nonetheless contribute, in context with other evidence, to carrying the ultimate burden of proof? The answers to the first two of these questions all seem significantly clearer today than they did a year ago—and the new clarity operates in the government’s favor. The third question, however, remains far from resolved.

The idea of a “mosaic theory” has long described a relatively straightforward strategy for intelligence analysis. As one writer described it, mosaic theory is the idea that

[d]isparate items of information, though individually of limited or no utility to their possessor, can take on added significance when combined with other items of information. Combining the items illuminates their
interrelationships and breeds analytic synergies, so that the resulting mosaic of information is worth more than the sum of its parts.523

The theory became the subject of some public attention and controversy in the 1980s, when it was increasingly used as justification for classifying otherwise innocuous information that a foreign intelligence service could use in combination with other information to generate knowledge of sensitive matters. Extrapolating from the same principles, the mosaic theory then also became central to government arguments for resisting disclosures under the Freedom of Information Act and for invoking the state secrets privilege; it eventually became associated with the larger debate concerning excessive government secrecy, overclassification, and the like.524 But in the government’s arguments—and in the manner we intend to employ it in this paper—the conceptual power of using the term “mosaic” to describe the larger picture painted by the government’s evidence poses no inherent controversy; it is merely a metaphor for recognition of the latent probative value that seemingly innocuous or unrelated information may have when viewed in context, an approach that is widely used in many judicial contexts outside of habeas.

It bears brief mention that the question of how the courts evaluate specific pieces of evidence necessarily bleeds into the question of the substantive standard for detention discussed in Chapter 3. Though the two questions are conceptually distinct, their relationship is particularly important in the district court cases we discuss here, several of which came down before the D.C. Circuit obviated the command-structure standard. Judges using the command-structure test, which required evidence that a detainee had “receive[ed] and execute[ed] orders or directions,” might tend to look for a discrete tile in the mosaic—a tile that shows an order received and obeyed. Even when such a judge insists she is looking at the evidence “as a whole,” she might tend to have a narrower focal length than one who is looking for a probabilistic big picture. By contrast, a court focused on looking broadly at whether a detainee is in functional terms meaningfully “part of” the enemy may tend to zoom out and be more sympathetic to a mosaic approach.

In any event, the question of how judges should consider disparate pieces of evidence initially stirred great controversy among the district judges, who found themselves confronted with evidence consisting primarily of intelligence reports. Some judges felt the government was asking them to behave like intelligence analysts and approve detentions on the basis of hunches fed by conjectures from weak traces of information. And they bristled. For example, when mosaic language made its first significant appearance in the Guantánamo habeas litigation in Judge Leon’s opinion in El Gharani, the government’s

524 See id.
evidence amounted to what Judge Leon called “a mosaic of allegations made up of statements by the petitioner, statements by several of his fellow detainees, and certain classified documents that allegedly established in greater detail the most likely explanation for, and significance of, petitioner’s conduct.”525 And while Judge Leon wrote that the allegations in question, “if proven, would be strong evidence of enemy combatancy,”526 he found that the government’s evidence failed to establish by the preponderance standard that any of the allegations were actually true: “Simply stated, a mosaic of tiles bearing images this murky reveals nothing about the petitioner with sufficient clarity, either individually or collectively, that can be relied upon by this Court.”527

It is somewhat unclear whether Judge Leon meant “mosaic” as anything more than a simple metaphor quite distinct from how the mosaic theory had been used in previous FOIA cases, but Judge Gladys Kessler soon gave the concept much more detailed treatment in a series of opinions. In Ali Ahmed, Judge Kessler’s first merits opinion, she responded to the government’s argument that the allegations and the pieces of evidence supporting the allegations “should not be examined in isolation.”528 She noted that it “may well be true” that the mosaic “approach is a common and well-established mode of analysis in the intelligence community.”529 But she objected, arguing that application of a mosaic “approach” would tend to confuse the standards of habeas review with the standards of intelligence analysis. As she explained: “[T]he Court’s obligation is to make findings of fact and conclusions of law which satisfy the appropriate and relevant legal standards as to whether the government has proven by a preponderance of the evidence that the [p]etitioner is justifiably detained.”530 She added:

The kind and amount of evidence which satisfies the intelligence community in reaching final conclusions about the value of information it obtains may be very different, and certainly cannot govern the Court’s ruling.

Even using the [g]overnment’s theoretical model of a mosaic, it must be acknowledged that the mosaic theory is only as persuasive as the tiles which compose it and the glue which binds them together—just as a brick wall is only as strong as the individual bricks which support it and the cement that keeps the bricks in place. Therefore, if the individual pieces

526 Id. at 149.
527 See id. at 148–49.
529 Id. at 56.
530 Id.
of a mosaic are inherently flawed or do not fit together, then the mosaic will split apart, just as the brick wall will collapse.\textsuperscript{531}

Later, in \textit{Al Adahi}, Kessler refined her critique of the mosaic theory and appeared to challenge the very notion that the government might prevail based on circumstantial evidence alone. She first acknowledged that although “the Government avoid[ed] an explicit adoption of the mosaic theory, it is, as a practical matter, arguing for its application to the evidence in this case.”\textsuperscript{532} She then analyzed the government’s evidence, finding that Al Adahi had ties to bin Laden, but that the ties could not “prove” he was part of Al Qaeda. She further stated that the evidence, however, “must not distract the Court from its appropriate focus—the nature of Al-Adahi’s own conduct, upon which this case must turn.”\textsuperscript{533} Though she found that Al Adahi stayed in an Al Qaeda guesthouse, this was “not in itself sufficient to justify detention,” and though he had attended an Al Qaeda training camp, this too was “not sufficient to carry the Government’s burden of showing that he was” part of, or a substantial supporter of, Al Qaeda.\textsuperscript{534} And having thus divided the evidence into its constituent pieces, Judge Kessler denied the likelihood of Al Adahi’s membership in Al Qaeda, at least under the command-structure test she adopted with respect to the substantive scope of detention authority: “[U]nder the analysis in \textit{Gherebi}, Petitioner cannot be deemed a member of the enemy’s ‘armed forces.’ He did not, by virtue of less than two weeks’ attendance at a training camp from which he was expelled for breaking the rules, occupy ‘some sort of ‘structured’ role in the ‘hierarchy’ of the enemy force.”\textsuperscript{535}

This methodology was influential with other district judges, several of whom wrote early habeas opinions that tended to view government evidence in a less integrated fashion than the government wished. Judges Robertson, Urbina, and Kennedy, for instance, all wrote opinions that granted detainee petitions after finding that the government’s evidence, though probative in some areas, was

\textsuperscript{531}Id. In \textit{Mohammed}, she used similar language and applied similar skepticism, ultimately granting the detainee’s petition. After describing the government’s position—which was the same as the one it urged in \textit{Ali Ahmed}, she rejected this “mosaic approach” and argued that the evidence must “be carefully analyzed—major-issue-in-dispute by major-issue-in-dispute—since the whole cannot stand if its supporting components cannot survive scrutiny.” Mohammed v. Obama, No. 05-1437, slip op. at 76 (D.D.C Nov. 19, 2009).

\textsuperscript{532}Al Adahi v. Obama, No. 05-0280, slip op. at 11 (D.D.C. Aug. 17, 2009). See also Hatim v. Obama, 677 F. Supp. 2d 1, 5 n.1 (D.D.C. Dec. 15, 2009) (noting that the government was arguing for [the application of the mosaic theory] “as a practical matter”) (quoting \textit{Al Adahi}, slip op. at 11).

\textsuperscript{533}Id. at 18.

\textsuperscript{534}Id. at 20, 25. Further, evidence that the petitioner was arrested “in the company of individuals rumored to be part of the Taliban” was “only associational” and thus no more salient. See \textit{id.} at 38.

\textsuperscript{535}Id. at 24-25 (quoting \textit{Gherebi}, 609 F. Supp. 2d at 68-69).
insufficient on the ultimate question. All of these cases led to government appeals in which the government claimed in part that the district court had unduly atomized the evidence it had found. And all led to outright reversals or the vacating and remanding of the lower court opinions.

The D.C. Circuit’s redirection of the lower court on the proper approach to considering evidence in its entirety began with the dramatic repudiation of Judge Kessler’s methodology in *Al Adahi*. As noted above, Judge Kessler concluded that the government had proven several inculpatory facts by a preponderance of the evidence yet still found for the detainee because she did not believe those facts sufficed to prove that the petitioner was detainable. The D.C. Circuit, in a unanimous panel opinion written by Senior Judge A. Raymond Randolph, found that Judge Kessler’s decision was flawed in two respects. First, she had applied a substantive detention standard that had since been superseded by later D.C. Circuit cases. Second, and more to the point for present purposes, Judge Kessler had erred in her overarching approach to the evidence. In a remarkable lecture about the nature of evidence—and without ever employing the term “mosaic”—Judge Randolph wrote that Judge Kessler’s approach to interpreting those facts which she found was entirely misguided: Specifically, Judge Kessler had failed to “appreciate conditional probability analysis” which was, in the panel’s view, the proper analytical approach for evaluating a given set of evidence:

> The key consideration is that although some events are independent (coin flips, for example), other events are dependent: “the occurrence of one of them makes the occurrence of the other more or less likely . . . .”

. . . .

Those who do not take into account conditional probability are prone to making mistakes in judging evidence. They may think that if a particular fact does not itself prove the ultimate proposition (e.g., whether the detainee was part of al-Qaida), the fact may be tossed aside and the next fact may be evaluated as if the first did not exist.

As Judge Randolph’s described Judge Kessler’s conclusions:

> This is precisely how the district court proceeded in this case: Al-Adahi’s ties to bin Laden “cannot prove” he was part of Al-Qaida and this evidence therefore “must not distract the Court.” The fact that Al-Adahi stayed in an al-Qaida guesthouse “is not in itself sufficient to justify detention.” Al-Adahi’s attendance at an al-Qaida training camp “is not

---


sufficient to carry the Government’s burden of showing that he was a part” of al-Qaida. And so on. The government is right: the district court wrongly “required each piece of the government’s evidence to bear weight without regard to all (or indeed any) other evidence in the case.”538

In Judge Randolph’s view, Judge Kessler’s decision contained a fundamental mistake that infected the court’s entire analysis. Having tossed aside the government’s evidence, one piece at a time, the court came to the manifestly incorrect—indeed startling—conclusion that “there is no reliable evidence in the record that Petitioner was a member of al-Qaida and/or the Taliban.” When the evidence is properly considered, it becomes clear that Al-Adahi was—at the very least—more likely than not a part of al-Qaida.539

Judge Randolph’s opinion cast in considerable doubt the lower court’s conclusions that the detainee’s guesthouse stay and his training-camp attendance were not in and of themselves sufficient to justify his detention.540 But its key contribution was in changing the nature of the evidentiary approach in general, by insisting that courts should view each allegation in the context of the other probative evidence on record. Summarizing those evidentiary elements, he wrote:

The evidence against Al-Adahi showed that he did both—stayed at an al-Qaida guesthouse and attended an al-Qaida training camp. And the evidence showed a good deal more, from his meetings with bin Laden, to his knowledge of those protecting bin Laden, to his wearing of a particular model of Casio watch, to his incredible explanations for his

538 Id. at 1105-06 (citations omitted).
539 Id. at 1106 (citation omitted).
540 See id. at 1108. For example, the panel disagreed with Judge Kessler’s analysis of the guesthouse evidence, which she had said was “not in itself sufficient to justify detention.” The court wrote that, to the contrary, “Al-Adahi’s voluntary decision to move to an al-Qaida guesthouse” was “powerful—indeed ‘overwhelming[ ]’—evidence” that he was part of Al Qaeda. Id. The court made a similar conclusion regarding Al Adahi’s attendance at Al Farouq. It disagreed with the district court that the evidence that Al Adahi had trained at Al Farouq was insufficient to carry the government’s burden of showing that he was a part, or substantial supporter, of enemy forces.” Id. at 1109. The attendance at the camp had, “to put it mildly,” given the court “strong evidence that he was part of al-Qaida.” Al Adahi at 1109. Finally, Judge Kessler’s conclusion that Al Adahi did not “receive and execute” orders because he violated the camp rule against smoking tobacco was “error”: “[H]is violation of a rule or rules did not erase his compliance with other orders.” In particular, the evidence that Adahi had received and followed orders while he was at Al Farouq meant that, at a minimum, he had “affiliated himself” with Al Qaeda. The court never goes out of its way to say definitively that one piece of evidence in itself can provide a detainability litmus test. But on several points, Al Adahi intimates that some such evidentiary markers would alone tip the scale, and are more important than others.
actions, to his capture on a bus carrying wounded Arabs and Pakistanis, and so on.541

Subsequent D.C. Circuit decisions have followed Al Adahi on examining facts in light of their interrelations with one another and the conditional probabilities those relationships create. In Salahi, the D.C. Circuit vacated and remanded one of former Judge Robertson’s district-court opinions. In that opinion, Judge Robertson had determined that the government had failed to satisfy its burden with respect to whether petitioner was part of the Al Qaeda “command structure,” despite concluding that the government had proven that Salahi “was an al-Qaida sympathizer—perhaps a ‘fellow traveler,’ was in touch with al-Qaida members, and from time to time before his capture had provided sporadic support to members of al-Qaida.” 542

The D.C. Circuit’s disagreement with Judge Robertson began with a systematic presentation of how his approach to the evidence had been superseded by the D.C. Circuit’s later opinions in two important respects. First, the command-structure approach that Judge Robertson applied had since been rejected in three separate opinions.543 Second, Al Adahi had ushered in a new methodology for how courts should consider evidence: Courts should view the government’s evidence “collectively.” Writing for the unanimous panel, Judge Tatel quoted from Al Adahi:

[A] court considering a Guantanamo detainee’s habeas petition must view the evidence collectively rather than in isolation. Merely because a particular piece of evidence is insufficient, standing alone, to prove a particular point does not mean that the evidence “may be tossed aside and the next [piece of evidence] may be evaluated as if the first did not exist.” The evidence must be considered in its entirety in determining whether the government has satisfied its burden of proof.

Although the district court generally followed this approach, its consideration of certain pieces of evidence may have been unduly atomized. For example, the court found that Salahi’s “limited relationships” with certain al-Qaida operatives were “too brief and shallow to serve as an independent basis for detention.” Even if Salahi’s

---

541 Id. at 1111. There were inklings of the D.C. Circuit’s recalibration in its earlier opinions as well. In Al Odah, for example, the court explained that the district court had considered evidence that the detainee had been captured without his passport not probative of the government’s theory on its own but incriminating “in the context of all the evidence in the case.” The district court held that Al Odah was part of Al Qaeda and Taliban forces, and the D.C. Circuit affirmed the decision. 611 F.3d 8, 16 (D.C. Cir. June 30, 2010).


connections to these individuals fail independently to prove that he was “part of” al-Qaida, those connections make it more likely that Salahi was a member of the organization when captured and thus remain relevant to the question of whether he is detainable.544

The D.C. Circuit followed its Salahi decision with Hatim, a very brief decision that reviewed Judge Urbina’s decision granting habeas to the petitioner.545 Judge Urbina had ruled that the government’s evidence was insufficient under the substantive standards he applied. The panel of Judges Henderson, Williams, and Randolph, in their *per curiam* order, vacated this opinion on three separate grounds. Two related to Judge Urbina’s narrow vision of the substantive scope of detention authority. The third, however, focused on his approach to the evidence: “the district court appeared to evaluate the evidence based on an approach we have since rejected in *Al-Adahi.*”546 This, it seemed, was just as fatal to Judge Urbina’s decision as was his application of the outdated substantive standards.

Most recently, in Uthman v. Obama, the D.C. Circuit again chastised a district-court judge for taking an unduly atomized view of the evidence. Judge Kennedy had given credence to evidence that Uthman (1) studied at a school at which other men were recruited to fight for Al Qaeda; (2) received money for his trip to Afghanistan from an individual who supported jihad; (3) traveled to Afghanistan along a route also taken by Al Qaeda recruits; (4) was seen at two Al Qaeda guesthouses in Afghanistan; and (5) was with Al Qaeda members in the vicinity of Tora Bora after the battle that occurred there.547

He found, however, that, “[e]ven taken together, these facts do not convince the Court by a preponderance of the evidence that Uthman received and executed orders from Al Qaeda. . . . Certainly none of the facts respondents have demonstrated are true are direct evidence of fighting or otherwise ‘receive[ing] and execut[ing] orders.’”548

The D.C. Circuit saw this evidence very differently, and explained that circumstantial evidence, though perhaps “weak” in some respects, *does* become probative when viewed in the context of other such evidence. As Judge Kavanaugh wrote for the panel in Uthman: “the facts, *taken together*, are more than sufficient to show that Uthman more likely than not was part of al

---

544 Id. at 753 (quoting and citing *Al Adahi*, 613 F.3d at 1105, 1107).
545 632 F.3d 720 (D.C. Cir. Feb. 15, 2011).
546 Id. at 721 (citing *Salahi*, 625 F.3d at 753; *Al Adahi*, 613 F.3d at 1105-06).
548 Id.
Qaeda.”549 He continued:

Here, as with the liable or guilty party in any civil or criminal case, it remains possible that Uthman was innocently going about his business and just happened to show up in a variety of extraordinary places—a kind of Forrest Gump in the war against al Qaeda. But Uthman’s account at best strains credulity; and the far more likely explanation for the plethora of damning circumstantial evidence is that he was part of al Qaeda.

....

We do “not weigh each piece of evidence in isolation, but consider all of the evidence taken as a whole.” Uthman’s actions and recurrent entanglement with al Qaeda show that he more likely than not was part of al Qaeda.550

The message from the appeals court from these four cases is stark: Stop considering tiles and look at the larger picture the mosaic describes. Furthermore, it is insufficient for a district judge to merely say that he is considering the mosaic as a whole, when in reality he is not truly doing so. If the evidence has latent probative value when viewed in context with other items of evidence, it must be given its due weight.

For the most part, lower court judges seem to have heard the message. Several post-Al Adahi decisions have demonstrated, some without express language, that the district-court judges are now very cognizant of the new instructions from the D.C. Circuit. For example, in Al Kandari, decided two months after the D.C. Circuit delivered Al Adahi, Judge Colleen Kollar-Kotelly was careful to note that the evidence, “taken as a whole,” made it more likely than not that Al Kandari was lawfully detained.551 In Toffiq Al Bihani’s case, Judge Walton held that petitioner admissions that he had stayed at Al Qaeda-affiliated guesthouses and associated with Al Qaeda or Taliban operatives after leaving an Al Qaeda-affiliated training camp supported the government’s theory that, “at least on its face and taken as a whole,” the petitioner was “part of” Al Qaeda at the time of his capture.552 In Obaydullah, Judge Leon invoked the mosaic metaphor when he wrote:

549 Uthman v. Obama, No. 10-5235, slip. op. at 7 (D.C. Cir. Mar. 29, 2011) (noting, in footnote 5, that the court was only marshalling uncontested facts to reach its conclusion).
550 Id. at 13-14 (quoting Al Odah v. United States, 611 F.3d 8 (D.C. Cir. June 30, 2010)). The D.C. Circuit took the same approach in Esmail v. Obama, its most recent case affirming the district court’s conclusions. No. 10-5282, slip op. at 5 (D.C. Cir. Apr. 8, 2011).
However, the combination of the explosives, the notebook instructions and the automobile with dried blood all fit together to corroborate the intelligence sources placing both the petitioner and Bostan at the scene aiding fellow bomb cell members who had been accidentally injured while constructing an IED. Thus, combining all of this evidence and corroborated intelligence, the mosaic that emerges unmistakably supports the conclusion that it is more likely than not that petitioner Obaydullah was in fact a member of an al Qaeda bomb cell committed to the destruction of U.S. and Allied forces. As such, he is lawfully detainable under the AUMF and this Court must, and will, therefore DENY his petition for a writ of habeas corpus.553

Judge Leon subsequently cited Al Adahi specifically in Alsabri:

In assessing whether the government has met its burden, the court may not view each piece of evidence in isolation, but must consider the totality of the evidence. Even if no individual piece of evidence would, by itself, justify the petitioner’s detention, the evidence may, when considered as a whole and in context, nonetheless demand the conclusion that the petitioner was more likely than not “part of” the Taliban or al-Qaida or purposefully and materially supported such forces.554

Conclusion

The district court’s initial resistance to a mosaic approach to these habeas cases probably reflects discomfort with affirming long-term incarcerations based not on several distinct elements that must individually be proven, as in a typical criminal case, but based on a single, collective assessment of whether the evidence carries the government’s ultimate burden, particularly where some or all of the evidence appears flimsy in isolation. But the D.C. Circuit has made clear as a substantive matter that the lower court is not to make a fetish of the government’s inability to prove any one fact, and as a methodological matter, that it is to look at the facts the government has shown in light of one another and form a probabilistic judgment based on the more general portrait they paint.

That said, the additional clarity in the D.C. Circuit’s recent cases does leave unanswered one major question about the mosaic approach: What should the judge do if the individual factual allegations, if proven, would have probative value if examined collectively, yet some or all of those individual allegations cannot themselves be proven by the appropriate standard of proof? The D.C.

Circuit in *Al Adahi* and *Uthman* analyzed only those facts that Judge Kessler believed the government had shown by at least a preponderance of the evidence—in other words, those tiles that were not “inherently flawed,” to use language from her earlier opinion. In doing so, the D.C. Circuit implicitly suggested that courts should only factor into the mosaic those factual allegations the government has proven by a preponderance of the evidence in the context of answering the ultimate legal question. Neither decision, however, explicitly says this, and the court left doubt about this proposition when it wrote in *Bensayah* that “two pieces of evidence, each unreliable when viewed alone, [might sometimes] corroborate each other” in a manner sufficient to make a particular proposition proven by a preponderance of the evidence. In short, while emphasizing that mosaic analysis is critical in these cases, the D.C. Circuit has not yet clarified which tiles should and shouldn’t show up in the mosaics it wants district judges to examine. This question is currently before the D.C. Circuit in *Almerfedi*. In its brief on appeal, the government argued that “the district court erred when it rejected individual elements of evidence as unreliable without considering the government’s evidence as whole.” It argues, in essence, that the court should have credited certain evidence because of how it looks in conjunction with other evidence—both evidence the lower court did and did not credit.

Consequently, despite the D.C. Circuit’s dramatic reorientation of the lower court, there remains a significant degree of uncertainty as to how to view constellations of pixilated evidence.

---

557 See id.