LITERARY CLUES IN JUDGES: A RESPONSE TO ROBERT CHISHOLM

ANDREW STEINMANN*

In a recent article, Robert Chisholm has proposed a chronology of the Book of Judges based on a perceived literary clue in the book itself. Chisholm is an accomplished scholar, and the literary pattern he points out in Judges is most certainly present in Judges and most assuredly points to something vital in the book's message. The questions this article will seek to address are two: Is the pattern Chisholm identified a clue to the chronology of Judges or is it a clue to some other feature developed by the author of Judges? Are there other literary features of Judges that point to a different view of the chronology of Judges?

I. THE SIGNIFICANCE OF THE PATTERN IDENTIFIED BY CHISHOLM

1. The pattern. Chisholm points out that the central section of Judges (presumably Judg 3:7–16:31) divides into two panels based on the six refrains that state that the Israelites did evil in Yahweh's eyes (Judg 3:7, 12; 4:1; 6:1; 10:6; 13:1).² He notes that in the second, third, fifth, and sixth occurrences of this refrain the verb יַּבְּשָׁלוֹת is used (with the infinitive יַבְּשָׁלוֹת), making the refrain "The Israelites again did evil. . . ." In contrast, the first and fourth occurrences of this refrain do not use יַבְּשָׁלוֹת but simply state, "The Israelites did (יִבְּשָׁלוֹת) evil. . . ." This creates two panels in this central section of Judges (Judg 3:7–5:31; 6:1–16:31). Each panel introduced by "The Israelites did evil . . ." and followed by two occurrences of "The Israelites again did evil. . . ." These two panels are further delineated by another pattern that can be seen in Yahweh's response to Israel's sin. In each panel, the verbs describing Yahweh's action are chiastically arranged. In the first panel Yahweh "sold"

^{*} Andrew Steinmann is professor of theology and Hebrew at Concordia University Chicago, 7400 Augusta Street, River Forest, IL 60305-1499.

¹ Robert B. Chisholm, Jr., "The Chronology of the Book of Judges: A Linguistic Clue to Solving a Pesky Problem," *JETS* 52 (2009) 247–55. While this article is a critique of Chisholm's article, I wish to stress that it is not a criticism of Chisholm, whom I regard with the utmost respect as a scholar. I appreciate the additional insight his article brings to the study of Judges even as I disagree with a number of points he has made in his article.

² Chisholm, "Chronology" 251. Since according to Chisholm the pattern begins at Judg 3:7 and runs through the account of Samson's judgeship, Judg 3:7–16:31 is likely what Chisholm considers to be the book's "central section."

³ Ibid. 252, n. 10.

them" (וַיְמְכְּרֵם: Judg 3:8), "strengthened" (יְיִחְזֵּק: 3:13), and "sold them" (וַיְמְכְּרֵם: 4:2). In the second panel Yahweh "gave them" (יִיִּחְנֵם: 6:1), "sold them" (זְיִמְבָּרָם: 10:7), and "gave them" (וַיִּחְנֵם: 13:1).

After establishing that the author of Judges divided his material into two panels, Chisholm then suggests, "Given the striking absence of קָּיבֻ, it is possible that Judge 6:1 is not to be understood as chronologically successive to 4:1. Perhaps the stories of the central section are arranged in two panels that are chronologically concurrent." While this may be a theoretical possibility, Chisholm offers no supporting evidence for this suggestion. That is, while it may be true that these two panels are a literary clue left by the author of Judges to point to the chronology of Israel's judges, it is not necessarily true. The simple suggestion that it is a chronological clue is not proof that it is. To determine what this literary feature of Judges is intended to highlight for the reader one must be able to answer additional questions that Chisholm did not address: What additional features of Judges leads one to conclude that chronology is the reason that the author divided his material into two panels? Is there other evidence that would argue that the two panels point to some other aspect of Judges that the author is highlighting?

2. Problems with Chisholm's chronology for Judges. Chisholm's suggestion assumes that the stories of the judges in the two panels are chronologically parallel to one another, allowing him to construct a chronology of Israel's judges. This immediately presents a problem, since some of the foreign oppressions happen during the periods when the land supposedly had rest from oppressors (Judg 3:11, 30; 5:31). Sensing this difficulty, Chisholm offers this solution: "This scheme assumes that references to 'the land' and to Israel, though reflecting a pan-Israelite rhetorical strategy, actually refer in any given case to the geographical region in which the particular judge lived." The evidence offered for this is that the first panel initially focuses on Israel's south (Ehud and Othniel) but for the end of the period of the judges focuses on Israel's north (Deborah/Barak). The second panel reverses this with an initial focus on the south (Gideon and Jephthah) but later focuses on the north (Samson).

Chisholm's north-south hypothesis must give one pause from the outset. It expects the reader to understand God granting rest to the land (and to Israel) as rhetorically applying to all Israel but in actuality applying only to only one region of Israel. How is one supposed to conclude that this is the case, and what does it say about God's mercy toward his people that he rhetorically grants everyone rest from oppression, but in reality grants only some of them rest?

But more pointedly, the north-south scheme fails miserably in the case of the Philistine-Ammonite oppression preceding Jephthah's judgeship (Judg 10:7–8). According to Chisholm's chronology this oppression occurred 1239–

⁴ Ibid. 251.

⁵ Ibid. 252.

⁶ Ibid. 253 (italics original).

1221 BC, in the middle of the land's southern rest gained by Ehud's activity—1270–1190 BC. How is one to understand an oppression by a coalition of Philistines on Israel's southwest flank and Ammonites on Israel's northeast flank as not interrupting the rest for the southern part of the land? Are we to understand the Philistines as simply offering moral support for the Ammonite incursion into Israel without any active participation? This seems unlikely. Are we to read Judg 10:7–8 as if the Philistines tried to oppress Israel from the south while the Ammonites were active in the north, but also as if the Philistines were largely unsuccessful? Where is the textual evidence for this?

Another problem for Chisholm's chronology is that it cannot account for the archaeological evidence from Hazor. In Chisholm's chronology King Jabin of Hazor oppressed Israel 1190–1170 BC (Judg 4:2). However, the archaeological evidence from Hazor makes this impossible. The third destruction layer at Hazor dates to about 1230 BC, and there is no subsequent urban occupation at Hazor until Solomon's time in the tenth century (1 Kgs 9:15). Jabin cannot have oppressed Israel from Hazor some forty to sixty years after it was destroyed and left unoccupied. §

A third problem for Chisholm's chronology is Jephthah's statement in Judg 11:26 that Israel had occupied the trans-Jordan for 300 years. Chisholm's chronology allows only 185 years for Israel's occupation of the trans-Jordan. His solution is to view Jephthah's claim as either hyperbolically inflated political speech or chronologically inaccurate. The major support for this conclusion about Jephthah's speech is Jephthah's statement that the god of the Ammonite king was Chemosh (Judg 11:24). It is well known that the head of the Ammonite pantheon was Milcom/Molech (1 Kgs 11:5, 7, 33; 2 Kgs 23:13; Jer 49:1, 3). Chemosh was the chief Moabite deity. Thus, Jephthah may purposely have been engaging in political rhetoric, going so far as to equate the Moabite god Chemosh with Ammon's god, since in Jephthah's day Ammon was dominating territory claimed by Moab (and Israel). Alternatively, Jephthah simply was confused on a variety of facts, including the identity of Ammon's god and the duration of Israel's occupation of the trans-Jordan.

The logic for dismissing Jephthah's statement fails for several reasons, however. First of all, we do not know which god was honored by the Ammonite kings during the thirteenth century. All of the biblical statements about Milcom as the chief Ammonite deity date to the tenth century or later. ¹¹ All

 $^{^7}$ Doron Ben-Ami, "The Iron Age I at Tel Hazor in Light of the Renewed Excavations," IEJ 51 (2001) 148–70

⁸ As far as I am aware, the only way that the chronology of the judges harmonizes with the archaeological data from Hazor is if the judges in the second panel of the central section of the Book of Judges are chronologically subsequent to the judges in the first panel.

⁹ Chisholm, "Chronology" 253–55.

¹⁰ Ibid. 255.

¹¹ This is true even if we include David's victory in the Ammonite war. Cf. 2 Sam 12:30 and 1 Chr 20:2 where lex reads the Hebrew ας και Μελχολ).

known Ammonite epigraphic evidence for Milcom as the chief Ammonite deity is also from this later period. ¹² We simply do not have any evidence to state categorically that the Ammonite kings of the thirteenth century did not honor Chemosh as their chief deity. Given the common origin of Ammon and Moab from Lot's daughters (Gen 19:36–38), it is entirely possible that at one time both peoples worshipped the same chief deity. Perhaps later Ammonite kings switched their allegiance from Chemosh to Milcom.

Second, even if Jephthah was confused about Ammonite culture, it does not logically follow that he was also confused about his own. While he could have been wrong about a foreign ethnic group's religion, that fact does not thereby necessitate that he was confused about his own people's history.

Third, if Jephthah was simply engaging in political propaganda, why did he choose the figure of 300 years? Why would 200 years (as an approximation of 185 years) have not been just as rhetorically effective? Why would other possible phraseology such as "hundreds of years" or "many years" not have been just as rhetorically powerful? The fact that Jephthah chose the phrase "300 years" cannot simply be dismissed as overblown political hyperbole. It is much more likely to be an accurate, albeit approximate, statement of fact, and Chisholm has produced no convincing evidence to demonstrate that it is not.

In summary, there are at least three serious problems with Chisholm's chronology for Israel's judges. This calls into question whether his understanding of the two panels of the central section of the Book of Judges as chronological markers is correct.

3. The two panels as thematic markers. If the two panels in the central portion of Judges are not an indication of chronology, what is the author of Judges signaling to the reader? The answer to this lies in viewing the central section as part of the larger book. The first panel is preceded by an introduction that clearly ties Israel's need for deliverers to its failure to drive out the inhabitants of the land, which led to the sin of idolatry (cf. Judg 2:1–5; 11–23). This theme of Israel's idolatry is emphasized in the opening of the first panel (Judg 3:7).

The second panel continues the emphasis on idolatry, but adds a second theme—kingship. This theme clearly ties the second panel to the concluding material in Judges where the statement "there was no king in Israel" is repeated four times (Judg 17:6; 18:1; 19:1; 21:25). This theme is introduced with Gideon, the first judge in the second panel. Following Gideon's victory the people suggest that Gideon rule over them (Judg 8:22). ¹³ Gideon rejects the idea that he or his son would rule Israel, since Yahweh was to rule Israel

¹² For example, the eighth-century Amman Citadel Inscription. Cf. Shmuel Ahituv, *Echoes from the Past: Hebrew and Cognate Inscriptions from the Biblical Period* (Jerusalem: Carta, 2008) 357–62.

¹³ The verbal root translated *rule* here is משל משל. Note that this verbal root is never used to characterize the judges' exercise of authority. The characteristic verbal root that denotes their exercising authority is שפט (Judg 3:10; 4:4; 10:2, 3; 12:7, 8, 9, 11, 13, 14, 15, 31; Ruth 1:1). In contrast, the Davidic dynasty's exercise of authority is at times characterized by the verbal root משל (2 Sam 23:3; 1 Kgs 5:1; 2 Chr 7:18; 9:26).

(Judg 8:23). Subsequently Gideon's son Abimelech characterized his attempt at establishing himself as king as *ruling* (Judg 9:2). Abimelech is called *king* (Judg 9:6), making Gideon's rejection of kingship tragically ironic. Thus, the author of Judges uses the first panel of the central section to develop the theme of Israel's sin and rejection of Yahweh. The second panel of the book demonstrates that Israel's rejection of God goes beyond idolatry to a rejection of his rule over them. In this it anticipates the establishment of the monarchy as depicted in Samuel. ¹⁴

This does not mean that the author of Judges had an antimonarchical bias. He clearly saw some benefits that a strong, righteous king could bring to Israel (Judg 17:6; 21:25). The problem was not monarchy *per se*. The problem was a monarchy established by Israel in their rejection of Yahweh instead of a righteous monarch chosen by Yahweh as a gracious gift to his people.

Therefore, the author of Judges uses the two panels in the central part of the book to make an important, but subtly nuanced, point: Israel's involvement with the natives of Canaan led to rejection of God (first panel). This, in turn, led to their desiring to establish a monarchy on their own when they instead needed a divinely established monarchy (second panel). Or, to put it another way, the Israelites wanted other gods to rule them, and this led to wanting a king that they, not God, would establish. However, the author of Judges is making a case for a divinely instituted monarchy—not one that would not be harmful as Abimelech's had been, but one that, by ruling in righteousness, could bring order to the chaos of idolatry (Judg 17:1–18:31) and decadence (Judg 19:1–21:5) that characterized this period in Israel's history. ¹⁵

Chisholm is most certainly correct that the central portion of Judges divides into two panels. His insight is useful and contributes to understanding the overall message of the book. The purpose for this two-panel literary arrangement, however, is not to send a signal about the chronology of this period. Instead, the two panels enable the author of Judges to develop his overall thematic concerns.

II. OTHER LITERARY FEATURES IN JUDGES THAT HAVE CHRONOLOGICAL IMPLICATIONS

1. The Ammonite and Philistine oppressions. Several other literary features have a direct bearing on the chronology of Judges. The first of these is that after the Ammonite and Philistine oppression is introduced at Judg 10:7 the Philistines are curiously absent from the action until the beginning of the Samson cycle at 13:1. ¹⁶ Jephthah defeated the Ammonites, but he did not deliver Israel from the Philistines. This of itself argues that the

¹⁴ See especially 1 Sam 8:7.

¹⁵ That the author of Judges is in favor of a monarchy is ably argued by David M. Howard, Jr., An Introduction to the Old Testament Historical Books (Chicago: Moody, 1993) 138–40.

¹⁶ The Philistines are mentioned by Yahweh at Judg 10:11 as one of the oppressors from whom he had delivered Israel in the past, but they are not part of the narrative's action at this point.

Ammonite oppression and the Philistine oppression subsequently related in the Samson cycle were concurrent. 17

Chisholm rejects the notion that the Ammonite and Philistine oppressions were concurrent because "the formulaic statement 'the Israelites again did evil' (cf. 13:1) when used elsewhere in Judges, marks the beginning of an era that chronologically follows the era that immediately precedes it." However, the verbal root Did does not necessarily denote "do again" in the sense of "do anew," but may denote "do again" in the sense of "continue to do." While some of the occurrences of clauses that begin this way in Judges may denote sequential events, there is nothing that inherently requires this clause to begin an episode that is sequential to the immediately previous one.

2. The lack of rest for the land after Jephthah and Samson. Another feature of the Ammonite and Philistine oppressions is that neither judge associated with them—Jephthah or Samson—brought rest to the land as all the other previous major judges did (Othniel: Judg 3:11; Ehud: 3:30; Deborah: 5:31; Gideon: 8:28). This is a clear indication that the victories of Jephthah and Samson were not decisive and did not bring the oppressions to an end.

In the case of Jephthah, it is striking that Judg 11:33 states, "So the Ammonites were subdued (וַיְּכָּנְעוֹי) before the Israelites" in language reminiscent of the victories over Moab, Jabin, and Midian (Judg 3:30; 4:23; 8:28, all of which use a form of the root כנע but without any ensuing notice of rest for the land as in those cases (Judg 3:30; 5:21; 8:28). The implication is that Jephthah's victory brought temporary relief and did not end the oppression. ²⁰

In Samson's case, the author of Judges is even more direct in stating that Samson was not going to bring the end of the Philistine oppression. Instead, before Samson's conception his mother was told, "he will begin to save Israel from the hand of the Philistines" (יְחֵל לְהוֹשֶׁי עֻ אֶח-יִשְּׁרָאֵל מִיֵּר פְּלְשָׁתִים; Judg 13:5). Samson, the reader is told, is only the beginning of deliverance from the Philistine oppression. ²¹ God never intended that Samson should bring the end of the oppression. In fact, when one turns to the Book of Samuel, the Philistines continue to be the major threat at the opening of the book,

¹⁷ Andrew E. Steinmann, "The Mysterious Numbers of the Book of Judges," *JETS* 48 (2005) 495–96. Others who had previously noted that the Ammonite and Philistine oppressions must have been simultaneous are: Daniel I. Block, *Judges, Ruth* (NAC 6; Nashville: Broadman and Holman, 1999) 35–36; C. F. Keil and F. Delitzsch, *Commentary on the Old Testament*, Vol. 2 (repr. Grand Rapids: Eerdmans, 1976) 373, 404; Eugene H. Merrill, "Paul's Use of 'About 450 Years' in Acts 13:20," *BSac* 138 (1981) 248; David L. Washburn, "The Chronology of Judges: Another Look," *BSac* 147 (1990) 424.

¹⁸ Chisholm, "Chronology" 250-51.

¹⁹ HALOT s.v. יסף.

²⁰ Contrary to Chisholm's assertion in "Chronology" 250.

²¹ This statement about Samson lends a certain irony to the question posed by the elders of Gilead as they search for the deliverer who will ultimately be Jephthah: "Who is the man who will begin to fight the Ammonites?" (Judg 10:18; מֵנ הָאִישׁ אֲשֶׁר יָחַל לְהַלְּחֶם בְּבְנֵי עֲמוֹן (מִי הָאִישׁ אֲשֶׁר יָחַל לְהַלְּחֶם בְּבְנֵי עֲמוֹן While this irony was not the intention of the elders, the author of Judges may well have intended the reader to see such irony. The reader is left to conclude that like Samson, Jephthah only begins the fight. He does not end it.

and their oppression of Israel does not end until Samuel intercedes for Israel (1 Sam 7:3-14; esp. v. 13). Shortly thereafter God provided a king to ensure delivery from the Philistines (1 Sam 9:16). Samson's twenty-year judgeship most likely overlapped the work of Samuel (and Abdon) and ended shortly before Saul's anointing.²²

Once again, Chisholm overlooks the clear literary features of the Samson cycle when he states, "Samson's 20 years of leadership (15:20; 16:31) may have overlapped with the 40 years of the Philistine oppression mentioned in 13:1, but this need not be the case. . . . We are told in 15:30 that Samson led Israel for 20 years 'during the days of the Philistines,' However, this need not refer to the period of the oppression per se."23 Yet neither the Book of Judges nor its readers know of any period other than the Philistine oppression that can be fairly characterized as "the days of the Philistines." Given the information in Judges, combined with the notices of the end of Philistine oppression in 1 Samuel, there can be no other conclusion except that Samson's judgeship came during—not after—the Philistine oppression.

In the cases of both Jephthah and Samson, the picture is that of a judge who served to check foreign oppression but did not end foreign oppression. Neither judge brings the land rest. Both judges "begin" (verbal root הלל) the task, but do not end it (Judg 10:18; 13:5). Both leave behind resurgent foreign forces that will assert themselves again early in the reign of Saul (Ammonites: 1 Sam 11:1–11; Philistines: 13:1–14:46).

3. The sequence of events in Judg 10:6-11:11. Chisholm claims that Jephthah's six year judgeship must have come at the end of the Ammonite oppression, not at its beginning.²⁴ However, the sequence of events as laid out in Judges 10-11 argues the opposite. After Jair's death (Judg 10:5), God handed Israel over to the Philistines and Ammonites because of Israel's continued idolatry (Judg 10:6-9). This occurred "that year"—the year of Jair's death.

Moreover, starting in 10:8b the Jephthah cycle is exclusively about the Ammonites. The Philistines are not mentioned again as oppressors until the sixth cycle. Thus, it appears that the fifth and sixth cycles overlap. The fifth cycle is mainly about affairs east of the Jordan River, whereas the sixth cycle is mainly about affairs west of the Jordan River. East of the Jordan River the oppression lasted eighteen years. (West of the Jordan it lasted forty years; cf. 13:1.)

Chronological data in the Jephthah cycle includes the time of the oppression by the Ammonites (eighteen years for those tribes east of the Jordan River; Judg 10:8), and a report that, apparently in the first year (Judg 10:9), the Ammonites crossed the Jordan River to spread the oppression beyond the Israelites living in Gilead, to those in Judah, Benjamin, and Ephraim.

²² I had previously listed Samson's judgeship as 1049–1030. That was a mistake. It should have been 1067-1049, ending shortly before Saul's reign (Steinmann, "Mysterious Numbers" 499).

²³ Chisholm, "Chronology" 250.

²⁴ Ibid.

Note that Judg 10:8b is a verbless clause (... שָׁמְהֶה שָׁמָה עַּשְׁהָה שְׁהָה שִׁהְה שִׁהְה שִׁהְה שִׁהְה שִׁהְה שִׁהְה שִׁהְה שִׁהְה שִׁהְה וֹ This is a clear syntactic signal that the verbless clause is not part of the line of the main narrative. Past narratives like this one are told by a chain of preterite (waw-consecutive imperfect) verbs. An interruption in the preterite chain signals something outside the main narration is being inserted (quotations, parenthetical comments, authorial observations, etc.). Parameterize commences again with the next preterite verb—in this case at the beginning of Judg 10:9. In Judg 10:8 we have a parenthetical comment, which makes the verse mean something like this: "They crushed and oppressed the sons of Israel that year (eighteen years all the sons of Israel who were across the Jordan in the land of the Amorites which is in Gilead)."

The Ammonite oppression for Israel in general lasted one year overall ("that year"), but eighteen years for Gilead. This means that the main narrative of Judges 10–11 (the beginning of Jephthah's judgeship) takes place in the first year of the Ammonite oppression (Judg 10:8a) when they crossed the Jordan to attack even Benjamin and Ephraim (Judg 10:9). The verbless clause simply is an aside that tells us that their oppression of part of Israel—the eastern tribes that lived in Gilead—lasted longer than a single year. The narrative sequence that follows the verbless clause is a continuation of the narrative of the first year of the Ammonite oppression that preceded the verbless clause.

This narrative sequence clearly places the beginning of Jephthah's judgeship at the beginning of the Ammonite oppression. This also explains the umbrage taken by the Ephraimites who had been attacked that first year of the oppression (Judges 12). It would have been unlikely that eighteen years after the Ammonites attacked them (but did not occupy their territory) they were offended by Jephthah's action and seeking some of the spoils from his campaign.

When the Ammonites attacked that year, even crossing the Jordan for incursions into the west (Judg 10:9), Israel cried out for relief and then repented when God answered them (Judg 10:10–16). The Ammonites were called to arms and encamped in Gilead. Meanwhile Israel gathered at Mizpah in Gilead, east of the Jordan River. This place plays an important role in the narrative relating to Jephthah. At Mizpah the leaders of Gilead sought someone to fight the Ammonites (Judg 10:17–18). At this point, the narration of the first year of the Ammonite oppression temporarily halts.

Judges 11 opens with a digression. We are told of Jephthah's early life and his sojourn in the land of Tob (Judg 11:1–3). Judg 11:4 then serves as a transition from the account of Jephthah's early life back to the first year of the Ammonite oppression. Judg 11:5 picks up again at the beginning of the Ammonite oppression with the elders of Gilead summoning Jephthah and agreeing to make him their leader at Mizpah (Judg 11:6–11).

The key to understanding this sequence is noting how the quotation of the leaders of Gilead at Judg 10:18 leaves the reader hanging and waiting for an answer. The reader is not to suppose that Israel came together at

²⁵ Examples can be found at Gen 13:1-3; Num 12:2-4; 1 Sam 7:6.

Mizpah, asked a question they could not answer, made an offer to anyone who could fill the designated role of deliverer, and then went home. Sometime later they fetched Jephthah from the land of Tob and again met at Mizpah to make him their leader. Quite the opposite: The mention of Mizpah at the beginning of the sequence (Judg 10:17) and at the end of the sequence (Judg 11:11) signal to the reader that this is one convocation that took place in a short period of time during the first year of the eighteen-year Ammonite oppression (cf. Judg 10:8).

The digression between Judg 10:18 and Jug 11:5 only temporarily halts the progress of the narrative. It serves both to introduce Jephthah and to heighten the tension for the reader before resuming the narrative where it left off. It signals that resumption of the narrative's main chronological frame of reference with a transitional sentence that gently moves the reader forward again to the proper timeframe (Judg 11:4).

The chronological upshot of understanding the literary technique employed in Judg 10:6-11:11 is that Jephthah's six-year judgeship had to have started at the beginning of the Ammonite oppression, not at its end. This confirms that Jephthah's victory did not bring an end to the Ammonite oppression (as signaled previously by the fact that the author indicates no rest for the land).

III. CONCLUSION

Literary features of a text are important for understanding the author's message. Robert Chisholm has indeed brought to our attention an important literary feature of Judges. This is an important contribution and ought not to be overlooked. However, the feature he has brought to our attention does not relate to chronology but to thematic development. Chisholm, unfortunately, discounts or overlooks other literary features that relate to chronology because they conflict with his chronological understanding of the literary feature he brings to our attention. Once it is understood that Chisholm's literary insight does not relate to chronology, we can once again turn our attention to those literary features of the text of Judges that do relate to its chronological framework.