Sensemaking

Understanding complex, ambiguous environments

Sensemaking is the ongoing process of giving meaning to one's experiences. Or, as Gary Klein and his colleagues more formally explain, sensemaking is the "motivated, continuous effort to understand connections (which can be among people, places, and events) in order to anticipate their trajectories and act effectively." Sensemaking is an activity that depends on extracting environmental cues, interpreting their meaning, and then connecting them in a plausible story. It is a vital skill for high-tempo environments.

Sensemaking Example

The mission of the Space Control Center is to Detect, Track, Identify, Catalogue (DTIC) and take action against high interest, potentially hostile, objects orbiting the earth. As an orbital analyst, I monitored space out to 50,000 km. The "big picture" I formed over time, using data from various reports and sensors, was used to protect US interests and operators in space. In July of '96, I detected 60 debris pieces in one inclination in near earth orbit, where before, there were only a few. After detailed analysis, connecting various indicators, I ruled out a military strike and formed the correct story that a recent French rocket launch destroyed a French satellite. The debris might intersect with Mir Space Station, risking catastrophic damage that would kill the onboard cosmonauts. As a result of my assessment, the Cosmonauts were ordered into pressure suits and onboard the Soyuz capsule as a precaution in the event the station was struck. Courtesy of Tom Solz, USAF Ret.
Sensemaking: Actively working to comprehend the connections among people, places, and events to understand the "big picture"

Perspective Taking: Understanding others' perspectives, thoughts, motivations, and actions

Characterizing: Explaining how observed people, places, and events fit together into a realistic narrative ("telling a story")
TERMINAL LEARNING OBJECTIVE

Given an operational setting or training scenario, Marines will continually evaluate situations by rationalizing the motives and actions of significant persons in their surrounding context and explain how those individuals, surrounding places, and ongoing events fit together into a descriptive narrative.

OVERALL KNOWLEDGE INDICATORS

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>GOOD PERFORMANCE</th>
<th>BAD PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>Explains how sensemaking supports tactical effectiveness</td>
<td>Fails to understand the value of sensemaking for tactical success</td>
</tr>
<tr>
<td>Terminology</td>
<td>References precise, accurate terminology in sensemaking justifications, e.g., combat profiling terms</td>
<td>Uses general, nonspecific language and fails to use doctrinal terms</td>
</tr>
<tr>
<td>Uses Reflective Judgment</td>
<td>Demonstrates critical thinking and empathy while clearly articulating likely thoughts and motivations</td>
<td>Unable to rationalize and articulate suggested motives and actions; shows personal bias and lack of empathy</td>
</tr>
<tr>
<td>Uses Ideation</td>
<td>Constructs rich, meaningful narrative that correctly explains how individuals, objects and events intersect</td>
<td>Narrative fails to adequately or realistically explain how individuals, objects and events fit together</td>
</tr>
</tbody>
</table>

PERSPECTIVE TAKING

“Commanders must appreciate the values, goals, and past experiences which motivate the enemy. We must gain insight into why he fights.”

- MCDP2

CHARACTERIZING

“We should try to “get inside” the enemy’s though processes and see the enemy as he sees himself so that we can set him up for defeat.”

- MCDP1

SENSEMAKING [85]
SUB-SKILL #1

Perspective Taking

ELO: Given information about a situation, Marines will identify the relevant perspectives within it, clearly articulate the motives associated with each, and then use these to justify specific actions taken in that situation.

SUB-SKILL PERFORMANCE CRITERIA

<table>
<thead>
<tr>
<th>Empathetic</th>
<th>Reasoned</th>
<th>Adjustable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates understanding of the thoughts/emotions of others</td>
<td></td>
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<tr>
<td>Supports interactions: Understanding others’ thoughts and emotions help Marines work tactfully and tactically with other people</td>
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<tr>
<td>Correctly accounts for uncertainty and own biases</td>
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<tr>
<td>Supports readiness: Taking into account your uncertainty and bias supports accurate inferences about others’ behavior</td>
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<tr>
<td>Updates interpretations as actions and events evolve</td>
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<tr>
<td>Supports adaptation: Correctly taking perspective requires you to recognize that people’s motivations are dynamic</td>
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TRAINING BENEFITS

- Supports understanding the motives of others
- Increases overall understanding of the environment
- Improves social interactions
- Provides a basis for estimating future behavior
**SUB-SKILL #2**

**Characterizing**

ELO: Given information about a situation, Marines will explain the connections and relationships between specific individuals, places, and events to develop a representative narrative or storyline.

**SUB-SKILL PERFORMANCE CRITERIA**

- **Realistic**
  - Incorporates all critical indicators in accurate assessment that could actually occur.
  - **Supports planning:** Having a realistic "big picture" assessment helps Marines maintain optimal COAs to support success.

- **Flexible**
  - Updates narrative as new information is obtained.
  - **Supports preparation:** Correctly characterizing requires you to recognize that "stories" are highly dynamic.

- **Conveyable**
  - Can be effectively communicated to others ("tell a story").
  - **Supports communication:** Supports shared understanding of the situation.

**TRAINING BENEFITS**

- Enhances understanding of why events occur.
- Improves meaning of observed indicators.
- Enables understanding of how events will evolve.
- Helps identify what adaptations may be needed to achieve goal.

**SENSEMAKING [87]**
Perspective Taking

1. Prepare for the exercise. Explain Perspective Taking and its value:

   Perspective Taking means understanding others’ perspectives, thoughts, motivations, and actions. With today’s highly dynamic operational environments, understanding the reasons behind people’s behavior provides a more accurate overall picture of the situation, which can be used to optimize COAs.

2. Describe the exercise. Explain to Marines that they are to identify the thoughts and motives of different characters within an upcoming scenario. Be sure to direct Marines to examine both sides of the story, specifically how they would view events as positive or negative, depending on their perspective.

3. Provide part 1 of scenario. (See page 90.) Instruct Marines to take note of specific things like:
   - How feelings of the characters drive potential outcomes
   - If there is a ‘common ground’ between characters
   - How your perspectives affect your interpretation

4. Follow-up part 1. Ask Marines “How do you view Asmar, and why do you have this view of him?”
   - Show the second part of the scenario to the Marines

5. Provide part 2 of scenario. Instruct Marines to take note of new information that might alter their perspectives and how they view characters within the scenario (see page 90).

6. Discuss. After Marines review both scenarios, have them discuss the perspectives of the characters. Discuss and ask:
   - How did you perceive Asmar after scenario part 1?
   - How did your perspective change after scenario part 2?
   - How did your perspectives inform your interpretation?
   - Why do you think Asmar didn’t show to the meeting?

7. AAR. Sample questions and prompts:
   - What cues led to perspective views for each character?
   - How can perspective taking improve foreign relations?
   - How does perspective taking support sentemaking?
**SCENARIO 2.13**

This is a two-part scenario that focuses on dealing with unknown situations and relationships in a combined effort situation. See pages 90-51 for the full scenario.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>QUALIFIED</th>
<th>QUALIFIED-</th>
<th>UNQUALIFIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathetic</td>
<td>Takes on the perspectives of each character, specifically describing the thoughts and motives of Anar and other characters</td>
<td>Has difficulty describing the thoughts and motives of Anar and other characters</td>
<td>Unable to take on Anar’s point of view, instead, describes own thoughts and motives</td>
</tr>
<tr>
<td>Adjustable</td>
<td>Alters own views of the thoughts and motives of each character given added information</td>
<td>Has difficulty adjusting perspectives of the characters when new information is given</td>
<td>Unable to update perspective assessments when new information is given</td>
</tr>
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**SENSEMAKING [89]**
Upon completing your in-country orientation for Afghanistan, you collaborate with a Host Nation Security unit for training and operations. After a hectic day at the FOB, you finally find the time to meet with your new ANA trainees of Unit 31. As you approach unit headquarters, you spot a senior officer going off on one of his subordinates. The officer is a veteran soldier, and losing face in front of his men will weaken respect. The trainees of this unit do not follow the officer’s instruction well, and you’ve heard they have little trust in his ability to lead and train effectively. A second trainee approaches the officer, only to face an aggressive scolding in front of his unit. With limited knowledge of the language and culture, you can only stand and observe. Your interpreter, Famir, then introduces himself and readies you to meet your ANA counterpart, Sgt. Asnar. Turns out, Asnar is the same man you just saw ripping into his men.

After a brief introduction, your interpreter explains that Sgt. Asnar is five years into his service and is proud of his unit. Asnar invites you to inspect Unit 31, and its overall operations. You have a lot on your mind, trying to get oriented with the new location; you dismiss his request and instead, set up a quick meeting with him the following morning at 0930. Asnar disappointedly shrugs his shoulders and walks off to meet with his fellow officers. Slightly confused, you ask Famir if you did something wrong. He explains that Asnar has successfully taken down two insurgent networks in the past years and was excited to work with you. Asnar was looking forward to learning from your recent successes. You quickly mention the scolding Asnar dished out when you arrived at unit headquarters. Famir explains that a trainee of the 31st unit stole food for his son, because this country does not pay its soldiers enough to support their families. He further clarifies that Asnar is an honorable leader, who reminds his trainees they are citizens of the law, and anyone needing help should approach him, as a friend, instead of violating rules. The second trainee brought unfortunate news, and while Asnar was yelling, he was merely venting to his unit. The next morning you wait, but Asnar does not show.
1. Prepare for the exercise. Explain Characterizing and its value:

**Characterizing** is a skill that uses information from your surroundings to formulate on-going storylines around people, places, and events. For example, during a hostile exchange between a shop owner and a patron, you might characterize the customer as dissatisfied with his/her purchase by the loud shouting, efforts at returning item, and aggressive body language. Creating these realistic narratives allows you to see beyond the specific "pieces" of information given and provide a story from which to make better-directed decisions.

2. Setup. Before conducting the exercise, separate trainees into two groups: *Team 1 (T1)* and *Team 2 (T2)*. Explain that each group will receive unique scenario information and the groups must collaborate with each other to complete a comprehensive narrative of the whole scenario.

3. Provide scenario information. Separately brief each team on their assigned scenario details. Each member of the team should develop a quick narrative of their scenario from these details before the next step (see page 94).

4. Collaborate and characterize. After teams review the details of the scenario, direct each team to match up, one-on-one, with a Marine from the other team. Instruct the pairs to develop a "big picture" storyline of the situation; connecting previously reviewed scenario details to make sense of the situation. Encourage Marites to develop plausible storylines and be prepared to verbalize their narrative aloud, using appropriate Combat Hunter terminology when possible.

5. Discuss. After a short collaboration period, have each pair verbalize their narrative aloud with a detailed COA.

6. AAR. Sample questions and prompts:
   - How was your narrative different/similar from others?
   - What are benefits of a "big picture" view of a situation?
   - If there were multiple plausible stories, what would your approach be?
   - How has characterizing affected the COA development?
In this scenario, your teams (two) conduct a routine mounted combat patrol, alongside ANA Soldiers, in order to provide security for the AO. See pages 94–95 for the full scenario.

### BASIC CHARACTERIZING PERFORMANCE EXAMPLES

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>QUALIFIED</th>
<th>QUALIFIED -</th>
<th>UNQUALIFIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realistic</td>
<td>Develops plausible story around all recognized cues</td>
<td>Identifies cues, but has difficulty piecing together logically; relying on unsupported assumptions</td>
<td>Develops unrealistic story without justification</td>
</tr>
<tr>
<td>Flexible</td>
<td>Adjusts story as new information is obtained during collaboration</td>
<td>Only incorporates some information into story during collaboration</td>
<td>Fails to adjust story as new information is obtained</td>
</tr>
<tr>
<td>Conveysable</td>
<td>Quickly and clearly articulates story around identified cues, walking through the situation step-by-step</td>
<td>Has difficulty quickly and clearly articulating story around indicators</td>
<td>Fails to quickly and clearly articulate story around indicators</td>
</tr>
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</table>
### SCENARIO 2.14

#### TEAM 1 SCENARIO DETAILS

Your team is conducting a routine mounted combat patrol, alongside ANA Soldiers, in order to provide security for the AO.

- **0930:** You observe four military-age males (MAMs), as you approach the local park.
- **0932:** You spot an elderly man by the park focusing heavily on location west of main road.
- **0936:** The four MAMs disperse after two men from teashop leave.
- **0937:** You approach piles of debris blocking the main road, leaving the westbound cross street open.

#### TEAM 2 SCENARIO DETAILS

**Team 2 Scenario Details:**

Your team is conducting a routine mounted combat patrol, alongside ANA Soldiers, in order to provide security for the AO.

- **0929:** Your patrol is heading North bound towards local park.
- **0933:** You spot two men sitting at a teashop observing your movements.
- **0934:** You see two empty vehicles North of your position on an unoccupied westbound cross street.
- **0935:** As you approach the local teashop, two men abruptly walk off in different directions, leaving a cardboard box unattended.
SCENARIO RESULT:

**VBED** on westbound cross street

**Indicators:**
1. Elderly man focusing on location west of main road
2. Two unattended vehicles on westbound cross street
3. Piles of debris channeling patrol towards westbound cross street
4. Cross street was unoccupied

**Distractors:**
1. Two men at teashop leave unattended box
2. Four MAMs dispersing as you approach teashop
Sensemaking: Actively working to comprehend the connections among people, places, and events to understand the "big picture".

Perspective Taking: Understanding others' perspectives, thoughts, motivations, and actions.

Characterizing: Explaining how observed people, places, and events fit together into a realistic narrative ("telling a story").
**Terminal Learning Objective**

Given an operational setting or training scenario, Marines will continually evaluate situations by rationalizing the motives and actions of significant persons in their surrounding context and explain how the individuals, nearby places, and ongoing events fit together into a descriptive narrative.

**Overall Behavior Indicators**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Effective</th>
<th>Ineffective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Decision Making</td>
<td>Executes informed and appropriate COAs, updating actions as new information emerges</td>
<td>Freeze or fail to act appropriately; actions show a lack of contextual understanding</td>
</tr>
<tr>
<td>Faster Detections</td>
<td>Quick identification of meaningful indicators and anomalies</td>
<td>Slow to recognize new indicators/ anomalies; fails to recognize meaning in current context</td>
</tr>
<tr>
<td>Proactive</td>
<td>Able to anticipate movements and trajectories to respond quickly and effectively</td>
<td>Slow to react; doesn’t position appropriately for coming events</td>
</tr>
<tr>
<td>Communicates “Big Picture”</td>
<td>Able to communicate “big picture” meaning to others</td>
<td>Fails to explain to team how events connect</td>
</tr>
</tbody>
</table>

**Sensemaking [79]**
**SUB-SKILL #1**

**Perspective Taking**

**ELO:** Given information about a situation (either provided by others or identified through own observations), Marines will clearly articulate the motives of identified characters or role-players within a exercise and justify specific actions taken by characters within that scenario.

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**SUB-SKILL PERFORMANCE CRITERIA**

**EMPATHETIC:** Demonstrates understanding of the thoughts/emotions of others

**WHY:** Understanding others’ thoughts and emotions help Marines work tactfully and tactically with other people.

**REASONED:** Correctly accounts for uncertainty and biases

**WHY:** Taking into account your uncertainty and bias supports accurate inferences about others’ behavior.

**ADJUSTABLE:** Updates interpretations as actions and events evolve

**WHY:** Correctly taking perspective requires you to recognize that people’s motivations are dynamic.
Characterizing

**ELO:** Given information about a situation (either provided by others or identified through own observations), Marines will identify the connections and relationships between specific individuals, places, and events and develop a narrative around details of those relationships.

**SUB-SKILL PERFORMANCE CRITERIA**

**REALISTIC:** Incorporates all critical/relevant indicators and an accurate assessment that could actually occur.

**WHY:** Having a realistic “big picture” assessment helps Marines maintain optimal COAs to support success.

**FLEXIBLE:** Updates narrative as new information is obtained.

**WHY:** Correctly characterizing requires you to recognize that “stories” are highly dynamic.

**CONVEYABLE:** Effectively communicates story to others.

**WHY:** Supports shared understanding of the situation.

SENSEMAKING [81]
Perspective Taking

1. Prepare for the exercise.

Select a Marine in your squad to serve as a role-player in this Tactical Questioning (TQ) exercise. See full scenario on page 86.

2. Complete training at MOUT. Have Marines detain and question a role-player outside of your MOUT training zone. Instruct the role-player to act out the part of a local national (LN), revealing bits of his/her backstory throughout the exercise.

3. Engage in tactical questioning. Practice the fundamentals of tactical questioning by conducting a one-on-one TQ session with a Marine and your designated role-player.

4. Facilitate perspective taking. Instruct the other Marines of the squad to take note of the verbal exchange, looking for things like:
   - How do the feelings of the local (role-player) drive potential outcomes?
   - Is there "common ground" between your unit and the local?
   - How do your perspectives affect your interpretation?
5. **Develop COA.** Instruct Marines to develop a COA given the information obtained from the role-player. Take note of whether Marines consider the thoughts/motives of the role-player in developing their COA.

6. **Conduct AAR.** After the TQ session, discuss perspective taking during your AAR. Sample questions:
   - What are the thoughts/feelings/motives of the local?
   - Did these affect your interpretation of the exchange?
   - Was there “common ground” with you and the local?
   - Was your presence wanted?

<table>
<thead>
<tr>
<th>EMPATHETIC</th>
<th>Qualified</th>
<th>Qualified –</th>
<th>Unqualified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marines</td>
<td>considered local’s</td>
<td>Marines identifies</td>
<td>Marine failed to identify</td>
</tr>
<tr>
<td></td>
<td>thoughts/ emotions</td>
<td>the thought/</td>
<td>the thoughts/ motives of the</td>
</tr>
<tr>
<td></td>
<td>when developing a</td>
<td>emotions of the</td>
<td>local</td>
</tr>
<tr>
<td></td>
<td>COA</td>
<td>local, but fail to consider those when developing his or her COA</td>
<td></td>
</tr>
<tr>
<td>REASONED</td>
<td>Marines explain how</td>
<td>Marines have</td>
<td>Marine fails to identify/consider</td>
</tr>
<tr>
<td></td>
<td>their own perspectives</td>
<td>difficulty explaining how own perspectives affect conclusions</td>
<td>own perspectives</td>
</tr>
<tr>
<td></td>
<td>affect conclusions</td>
<td></td>
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**SENSEMAKING [83]**
Characterizing

Note: This activity incorporates the details from three different events, including Perspective Taking—Activity #1 on page 82, to provide Marines with a complete narrative.

1. Prepare for the exercise.

Before conducting a MOUT room-clearing exercise, place VBIED props within the training zone. For example, you could place electrical wires in one room, empty canisters in another, and bundled tape throughout. Be sure to include distractors to reduce the saliency of VBIED props.

Event 1: Conduct MOUT exercise. During the exercise, have Marines identify indicators within the area for potential dangers or planned threats. Marines should make note of these indicators and their meaning to begin shaping a narrative of the situation, as these indicators will tie into following activities.

Event 2: Initiate TQ scenario. After completing your MOUT exercise, conduct Perspective Taking—Activity #1 (see page 82).

Event 3: Provide patrol scenario. See page 87 for scenario details.
2. **Characterize events.** Instruct Marines to create a story of events in this activity, connecting indicators to make sense of the situation. Encourage Marines to be imaginative in developing plausible storylines and to verbalize aloud.

3. **AAR.** Sample questions and prompts:
   - Did you identify connections between events?
   - How does making these connections help you adapt?
   - How can you enhance your story to create a better shared understanding amongst your team?

<table>
<thead>
<tr>
<th>REALISTIC</th>
<th>Qualified</th>
<th>Qualified</th>
<th>Unqualified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marines identify meaningful connections; developing a narrative of event indicators deemed plausible by their fellow Marines</td>
<td>Marines identify some of the connections between observable indicators; makes conclusions that aren't plausible</td>
<td>Marines fail to make meaningful connections; developing implausible narrative, which is not based on indicators observed</td>
<td></td>
</tr>
</tbody>
</table>

| CONVEYABLE | Marines clearly verbalize connections between events to fellow Marines like "telling a story" | Marines have difficulty "telling a story" of their perceived connections between events | Marines fail to clearly verbalize their perceived connections between events |

**SENSEMAKING [85]**
Marine will play the role of a local strolling nearby the area where your patrol unit is clearing. There is ongoing tension between your government and underground terrorist organizations. The terrorist groups rely on similar strategies to the Taliban and Al Qaeda, (e.g., “hit and run” ambush attacks, snipers, and IEDs). Recently, these groups gained the affection of the locals by providing food, water, and other required supplies. You fear these groups, but the need for basic essentials outweighs your urge to resist these groups. In some cases, the terrorist groups even supply luxuries to your village, such as a new 2013 Range Rover, which sits north of the road outside the main market area. In exchange, the locals of your village help conceal the identity of these groups to passing patrol, provide intel on patrol movements, and offer tools or scraps when they need them.
Your squad is patrolling outside your FOB in the early morning, near an outdoor market. Near the perimeter of the market, you notice a group of locals huddled together behind a walled-off area with their attention fixed on a desolate road exiting the main market area. Across the street, you also see a group of young males huddled around pieces of scrap metal and an old car battery. As you approach the perimeter of the bazaar, locals slowly break apart and move away in different directions.