A Supplemental Material

Questions and Answers:

Fig. 1 shows the distribution of question lengths. Most of our questions are longer than 10 words. Fig. 2 shows a pie distribution of our first-part question words, as well as the associated second-part question words. We see that ‘what’ accounts for a large portion for the first part, i.e., what (Abstract, Object, Action), and ‘when’ is more often used for moment localization in the second part. Fig. 3 shows the distribution of answer lengths. Note there is no peak answer length in TVQA, thus understanding the variable-length answers is also crucial for TVQA question-answering.

More QA examples: We show more examples using our S+V+Q joint model trained on full-length video and subtitle in Fig. 4, where the top three rows show the correct answers made by our model and the bottom two rows show the wrong ones.

<table>
<thead>
<tr>
<th>Character</th>
<th>Top unique nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derek</td>
<td>Anna, MRI, today, tumor, black, desk, cat, area, trailer, procedure, ice</td>
</tr>
<tr>
<td>Cristina</td>
<td>Colin, dress, leg, Dong, Deborah, wedding, choker, restroom, lab, pad</td>
</tr>
<tr>
<td>Izzie</td>
<td>Cheyenne, check, Jilly, sweater, Heather, bathroom, lunch, sheet, beast, condition</td>
</tr>
<tr>
<td>Burke</td>
<td>surgeon, valve, pole, cap, fishing, point, situation, look, flower, pressure, breakfast</td>
</tr>
<tr>
<td>Meredith</td>
<td>Susan, Thatcher, mom, counter, Dylan, boyfriend, band, step, Molly</td>
</tr>
<tr>
<td>George</td>
<td>macker, Sophie, conference, west, mercy, box, stairwell, pocket, bottle, morning</td>
</tr>
<tr>
<td>Bailey</td>
<td>Viper, son, clinic, clipboard, gesture, binder, Kelley, razor, scalpel, sex, piece, twin, Judy</td>
</tr>
<tr>
<td>Addison</td>
<td>Naomi, ring, Sam, news, rose, Lisa, station, kid, ultrasound, pink, monitor, concern</td>
</tr>
</tbody>
</table>

Table 1: Top unique nouns for characters in Grey.

<table>
<thead>
<tr>
<th>Character</th>
<th>Top unique nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ted</td>
<td>class, girlfriend, tattoo, movie, architect, Jen, word, Hammond, airport, student</td>
</tr>
<tr>
<td>Lily</td>
<td>gift, purse, dress, kitchen, water, card, tree, plan, Judy, credit, mouth, paint, bedroom</td>
</tr>
<tr>
<td>Barney</td>
<td>James, Jerry, Nora, suit, brother, Bob, Sam, strip, cigar, way, fist, street, ice</td>
</tr>
<tr>
<td>Marshall</td>
<td>sandwich, bra, burger, Jeff, money, song, work, Marvin, laptop, school,</td>
</tr>
<tr>
<td>Zoey</td>
<td>landmark, thanksgiving, cousin, tape, husband, spot, bit, turkey, text, recording</td>
</tr>
</tbody>
</table>

Table 2: Top unique nouns for characters in HIMYM.

Top unique nouns for characters: We show the top unique unique nouns for characters for Grey and HIMYM in Tab. 1 2.
What does Alvie say when he is being brought into the room with House?
(a) Get away
(b) Get off me
(c) Leave me alone
(d) Hello

What was behind Meredith when she said she was swimming?
(a) her doorman
(b) her betrayer
(c) what?
(d) her hand
(e) her doorman is his betrayer

What is Captain holding in his hand when he tells Ted that he believes?
(a) It's my doorman!
(b) It's my betrayer
(c) I'm his doorman!
(d) I'm his betrayer is...

Who does Burke ask Derek about when they are eating peanuts?
(a) Burke asks about James
(b) Burke asks about Meredith
(c) Burke asks about Cristina
(d) Burke asks about Bailey

What does Sheldon wear when he was talking to Penny?
(a) A track suit
(b) A pinstriped suit
(c) A button down shirt with a vest
(d) A tuxedo

Who is Captain telling Ted that he believes?
(a) It's my doorman!
(b) I'm his doorman!
(c) My betrayer is...
(d) My doorman

Tell me your fingers when you are cut off?
(a) He couldn't feel his fingers
(b) His finger had been freshly severed
(c) All of Heath's fingers were cut off
(d) He had been shot in the hand
(e) None of Heath's fingers were cut off

What was behind Alvie when he walked into the room with Amy, Penny and Sheldon?
(a) A button down shirt with a vest
(b) A striped suit
(c) A tuxedo
(d) A clown costume

What were examining them?
(a) Burke asks about Bailey
(b) Burke asks about James
(c) Burke asks about Addison
(d) Burke asks about Meredith

What was Leonard wearing when he walked into the room with Amy, Penny and Sheldon?
(a) He picked up a sandwich
(b) He packed up the phone
(c) He picked up a sandwich
(d) He stands up

When叫(aside:) You're broke my chair!
(a) Chandler
(b) Ross
(c) Phoebe
(d) Joey

Where is Amy when Sheldon asks her if he is sensing awkwardness?
(a) Amy is sitting on Penny's lap
(b) Amy is sitting on Howard's lap
(c) Amy is sitting on Sheldon's lap
(d) Amy is sitting on Penny's lap

What was Leonard saying when he walked into the room with Amy, Penny and Sheldon?
(a) A button down shirt with a vest
(b) A striped suit
(c) A tuxedo
(d) A clown costume

How did Sheldon wear his watch when he was talking to Penny?
(a) He was wearing it on his left ankle
(b) He was wearing it on his right ankle
(c) He was wearing it on his right wrist
(d) He was wearing it on his left wrist

What was behind Alvie when he was thinking about them?
(a) Meredith
(b) House
(c) Him
(d) Me

When were examining them?
(a) Burke asks about Bailey
(b) Burke asks about James
(c) Burke asks about Addison
(d) Burke asks about Meredith

Figure 4: More examples from TVQA dataset, along with the predictions from our best model. Ground truth answers are highlighted in green, and model predictions are indicated by ✓. Best viewed in color.