Try for a baseline (for out-of-the-box, pretrained model)

Just one summarization to begin with, randomly picked

In [73]:
```
#  Just one summarization to begin with, randomly picked ... but
#+ now with th possibility of a known seed, to allow visual
#+ comparison with after-training results.
#+ I'M NOT GOING TO USE THIS REPEATED SEED, I'm just going to
#+ use the datum at the first index to compare.

do_seed_for_repeatable = True

summarizer = pipeline('summarization',
                      model=model,
                      tokenizer=tokenizer)

if do_seed_for_repeatable:
    rand_seed_for_randrange = 137
    random.seed(rand_seed_for_randrange)
##endof:  if do_seed_for_repeatable

sample = dataset['test'][randrange(len(dataset["test"]))]
print(f"dialogue: \n{sample['dialogue']}\n---------------")

res = summarizer(sample["dialogue"])

print(f"flan-t5-small summary:\n{res[0]['summary_text']}")
```

```
dialogue:
Jayden: But I don't need kids. Kids means over. At least for a woman
Brennan: Over what ?
Jayden: The end of normal life. Being pregnant, suffering because of this etc
Brennan: Hmm so I need to look for another mother to my kids then. Haha
Jayden: Being obligated to be with the. 24h. Men have only sex and they wait for kid
s while women suffer
Brennan: I don't agree...
Jayden: I wish I could do the same. Then probably i would say the same like u.
Brennan: Guys like me would be there through it all to reduce the suffering
Jayden: Physical suffering. No one can do anything with this. I wish I could just ha
ve sex and wait for a baby while having a normal life. Not getting fat, having the s
ame body, the same breast and not disgusting ... Not feeling sick, not having pain,
being able to do every day stuff even like walking...
Brennan: It's gonna happen eventually
Jayden: I was I'm a store, behind me there was a pregnant woman, she dropped some mo
ney and she couldn't even take them from the floor... I had to help her
Brennan: That's because she's about to give birth
Jayden: I hope that maybe soon they will be possible to have a child without being p
regnant. Yes! And she's suffering
Brennan: Any I'm sorry for feeding you with my bullshit
Jayden: While a man is doing his normal stuff. U mean the conversation?
Brennan: I hope you find a guy that can give you the sex you want and not get pregna
nt
Jayden: Would be awesome
Brennan: I'm gonna go to sleep now. Good night
Jayden: I said I don't want to have any children now! Maybe in the future when I hav
e a good job, I'm financially independent. Good night
---------------
flan-t5-small summary:
Jayden doesn't need kids. He needs to look for another mother to his kids. Jayden is
a store, behind him, and a pregnant woman dropped some money and couldn't take them
from the floor. She's about to give birth.
```

Now, a couple summarizations with comparison to ground truth

In [74]:
```
pred_test_list = []
ref_test_list = []

sample_num = 0

this_sample = dataset['test'][sample_num]

print(f"dialogue: \n{this_sample['dialogue']}\n---------------")

ground_summary = this_sample['summary']
res = summarizer(this_sample['dialogue'])
res_summary = res[0]['summary_text']

print(f"human-genratd summary:\n{ground_summary}")
print(f"flan-t5-small summary:\n{res_summary}")

ref_test_list.append(ground_summary)
pred_test_list.append(res_summary)

#-------------------------------------------------------------------------------
#  datasets.load_metric
#+ Supposed to be deprecated, but it's the only one I found that aggregates
#+ the scores. Also, it gives more than just an f-score
rouge = load_metric('rouge', trust_remote_code=True)

#  Yes, I have just one datum, but I'm setting things up to
#+ work well with a loop.
results_test_0 = rouge.compute(
                    predictions=pred_test_list,
                    references=ref_test_list,
                    use_aggregator=False
)

# >>> print(list(results_test.keys()))
# ['rouge1', 'rouge2', 'rougeL', 'rougeLsum']
```

```
Your max_length is set to 200, but your input_length is only 133. Since this is a su
mmarization task, where outputs shorter than the input are typically wanted, you mig
ht consider decreasing max_length manually, e.g. summarizer('...', max_length=66)
```

```
dialogue:
Hannah: Hey, do you have Betty's number?
Amanda: Lemme check
Hannah: <file_gif>
Amanda: Sorry, can't find it.
Amanda: Ask Larry
Amanda: He called her last time we were at the park together
Hannah: I don't know him well
Hannah: <file_gif>
Amanda: Don't be shy, he's very nice
Hannah: If you say so..
Hannah: I'd rather you texted him
Amanda: Just text him 🙂
Hannah: Urgh.. Alright
Hannah: Bye
Amanda: Bye bye
---------------
human-genratd summary:
Hannah needs Betty's number but Amanda doesn't have it. She needs to contact Larry.
flan-t5-small summary:
Larry called Hannah last time she was at the park together. Hannah doesn't know Larr
y well. Larry called her last time they were at a park. Hannah will text Larry.
```

In [75]:
```
print_rouge_scores(results_test_0, 0)
```

```
---------- ROUGE SCORES ----------
  --------- dialogue 1 ----------
ROUGE-1 results
[Score(
          precision=0.16129032258064516,
          recall=0.3125,
          fmeasure=0.2127659574468085)]
ROUGE-2 results
[Score(
          precision=0.03333333333333333,
          recall=0.06666666666666667,
          fmeasure=0.04444444444444444)]
ROUGE-L results
[Score(
          precision=0.12903225806451613,
          recall=0.25,
          fmeasure=0.1702127659574468)]
ROUGE-Lsum results
[Score(
          precision=0.12903225806451613,
          recall=0.25,
          fmeasure=0.1702127659574468)]
```

In [76]:
```
sample_num = 224

this_sample = dataset['test'][sample_num]

print(f"dialogue: \n{this_sample['dialogue']}\n---------------")

ground_summary = this_sample['summary']
res = summarizer(this_sample['dialogue'])
res_summary = res[0]['summary_text']

print(f"human-genratd summary:\n{ground_summary}")
print(f"flan-t5-small summary:\n{res_summary}")

# Now, we'll have two data
ref_test_list = [ground_summary]
pred_test_list = [res_summary]

results_test_224 = rouge.compute(
                      predictions=pred_test_list,
                      references=ref_test_list,
                      use_aggregator=False
)
```

```
Your max_length is set to 200, but your input_length is only 160. Since this is a su
mmarization task, where outputs shorter than the input are typically wanted, you mig
ht consider decreasing max_length manually, e.g. summarizer('...', max_length=80)
dialogue:
Abigail: It's Sundaay.
Damien: So?..
Abigail: You know what that means.
Damien: Hmm no I don't x)
Abigail: Sunday means we go to church~.
Damien: Oh, yeah..
Abigail: Don't forget to put on a coat and tie.
Damien: A coat and tie?.. Why?
Abigail: To show respect to God and others.
Damien: Omg..I'm glad Sunday is only once a week.
Abigail: I hope God didn't hear that.
Damien: He'll forgive me 😇
Abigail: Just be ready on time please.
---------------
human-genratd summary:
Abigail and Damien are going to church on Sunday. Damien has to put on a coat and ti
e.
flan-t5-small summary:
Abigail, Damien and Damien go to church on Sunday. They are going to pray for God an
d others. Damien is glad Sunday is only once a week.
```

In [77]:
```
print_rouge_scores(results_test_224, 224)
```

```
---------- ROUGE SCORES ----------
  --------- dialogue 225 ----------
ROUGE-1 results
[Score(
          precision=0.48148148148148145,
          recall=0.7222222222222222,
          fmeasure=0.5777777777777777)]
ROUGE-2 results
[Score(
          precision=0.23076923076923078,
          recall=0.35294117647058826,
          fmeasure=0.2790697674418605)]
ROUGE-L results
[Score(
          precision=0.3333333333333333,
          recall=0.5,
          fmeasure=0.4)]
ROUGE-Lsum results
[Score(
          precision=0.3333333333333333,
          recall=0.5,
          fmeasure=0.4)]
```