A   Data Samples

We include several full posts (with identifying information removed and whitespace collapsed) in Figures 4 to 7. Posts are otherwise reproduced exactly as obtained (with spelling errors, etc.). The selected examples are deliberately of a reasonable but fairly typical length for readability and space concerns; recall that our average post length is 420 tokens, longer for interpersonal subreddits and shorter for other subreddits.

B   Full Annotation Guidelines

We provide our annotation instructions in full in Figure 8. Mechanical Turk Workers were given these instructions and examples followed by five text segments (one of which was one of our 50 check questions) and allowed to select "Stress", "Not Stress', or "Can't Tell" for each. Workers were given one hour to complete the HIT and paid $0.12 for each HIT where they correctly answered the check question, with a limit of 30 total submissions per Worker.

C   Parameter Settings

We tune our traditional supervised models' parameters using grid search, all as implemented in Python's `scikit-learn` library (Pedregosa et al., 2011). Our best model uses unbalanced class weights, L2 penalty, and a constant term `C=10`, with other parameters at their default values. All cross-validation runs were initialized with the same random seed for comparability and reproducibility.

We train each of our neural models with the Adam optimizer (Kingma and Ba, 2015) for up to ten epochs with early stopping measured on the validation set. We apply a dropout rate of 0.5 during training in the recurrent layers and after the convolutional layers. We set our hidden sizes (i.e., the output of the recurrent and pooling layers) as well as our batch size to 128, and tune our learning rate to $5 \cdot 10^{-4}$; we set these parameters relatively small to try to work with our small data. We also experiment with scheduling the learning rate on plateau of the validation loss, and with pretraining the models on a much larger sentiment dataset, the Stanford Sentiment Treebank (Socher et al., 2013), to help combat the problem of small data, but this does not improve the performance of our neural networks.

D   Error Analysis Examples

As a supplement to our error analysis discussion in section 6, we provide additional examples of test data points which one or both of our best models (BERT-base or our best logistic regressor with embeddings trained on our unlabeled corpus and high-correlation discrete features) failed to classify correctly in Table 10.

Hey guys, I've been lurking around for a couple of weeks and I finally decided to post something.

I'm not open to my parents about how I feel or what's going on with me because I fear that they won't understand or that I won't get my point across properly. The only person I can talk to is my SO.

I'm a junior in high school, and I think I have anxiety. Although I'm not sure. I have this feeling of dread about school right before I go to bed and I wake up with an upset stomach which lasts all day and nakes me feel like I'll throw up. This causes me to lose appetite and not wanting to drink water for fear of throwing up. I'm not sure where else to go with this, but I need help.

If any of you have this, can you tell me how you deal with it? I'm tired of having this every day and feeling like I'll throw up.

If you guys need any follow up questions, feel free to ask and I'll do my best to answer.

Figure 4: The full post for our example in Figure 1, posted in the subreddit r/anxiety.

Does anybody else get this weird inner tremor when theyre really badly triggered? I cant even see it on my hands but my body feels like its vibrating and if I put my teeth together they chatter slightly.

I only get it when I have a flashback or strong reaction to a trigger. I notice it sticks around even when I feel emotionally calm and can stick around for a long time after the trigger, like days or weeks.

Its a new symptom I think. Also been having lots of nightmares again recently. Not sure what to do as Im not currently in therapy, but I am waiting to be seen at a mental health clinic.

Figure 5: The full post for one of our examples in Figure 1, posted in the subreddit r/ptsd.

Why am I so alone? I have people all around me but knowing his presence is no longer around is terrifying me.

Every other time we would fight or break up, he would stalk me. It use to frighten me he knew when I was on break if I spoke to someone or even what room I was at in my home. Now I find myself so lonely knowing that this is truly the end. I feel crazy for feeling this way but him and the kids were my LIFE for the last 2 years.

I wasn't able to have social media and extremely restricted to whom I was allowed to talk to. Even those that were permitted were strongly monitored.

Now not knowing the certainty of what the future holds is beyond terrifying. For the last 2 years my life was so controlled that I knew what I was to do minute by minute. I knew based on his moods how the day would present itself. If it was a "good day" I would be loved, cherished, showed with affection and promises. If it was a "bad day" I would be belittled, threatened, restricted from access to money and vehicle. On good days I would attempt to talk about the escalation and unacceptable behaviors displayed on bad days, however I could see the change in his eyes and snap everything would change. I was now the whore, the botch, the stupid incapable person he despises. Back to walking on eggshells. Trying to get that once perfect Cassanova back that once was there. But no even on good days the magic was gone, because it was now replaced with fear of the man I never knew before.

Figure 6: A full post from the subreddit r/domesticviolence.

> Our dog Jett has been diagnosed with diabetes and is now in the hospital to stabilize his blood sugar. Luckily, he seems to be doing well and he will be home with us soon. Unfortunately, his bill is large enough that we just can't cover it on our own (especially with our poor financial situation).
>
> We're being evicted from our home soon and trying to find a place with this bill is just too much for us by ourselves. [To help us with the bill, we set up a GoFundMe page] <URL>. We need $2,900 dollars to pay the bill in full, but any and all assistance is appreciated. Even just sharing would help us a lot. We've had Jett as part of our family for over 10 years and we want to make sure he gets better in a spot where we can to support him well.

Figure 7: The full post for one of our examples in Table 2, posted in the subreddit r/assistance. The brackets indicate a hyperlink.

Instructions: Below you are given snippets of text from social media. Please decide whether the person who wrote each snippet is, overall, stressed about what they're talking about. Let the text stand alone and try to decide without any additional context, but do remember these are parts of larger posts, so even if they are stressed, they may not be expressing it in this particular bit of text.

What does stress mean?: The Oxford English Dictionary defines stress as "a state of mental or emotional strain or tension resulting from adverse or demanding circumstances". This means that stress results from someone being uncertain that they can handle some threatening situation. We are interested in cases where that someone also feels negatively about it (sometimes we can find an event stressful, but also find it exciting and positive, like a first date or an interview).

- If you believe the writer **is stressed** and **has an overall negative attitude about it**, select "stress".
- If you believe the writer is not stressed, expresses stress but does not have an overall negative attitude about it, or has a negative attitude but you don't consider it stress (e.g., angry but not stressed), select "not stress".
- If you cannot tell—for example, because the snippet does not make sense, or is ambiguous—select "can't tell".

Remember to decide **based on the feelings the writer is expressing**, **NOT** whether you think the situation is or should be stressful.

Here are a few examples:

Sentence	Stress	Not Stress	Explanation
The interview process is super intimidating, like I don't even know how I'm gonna make it, but I'm so pumped for the job!	○	◉	The writer is excited about the prospect of getting the job. Although the interview is a stressful event, they view it positively. If the writer dwelled on the difficulty of the interview, we would consider this stressful.
Over the past month, I've lost my appetite, have trouble sleeping, and feel like I'm shivering all the time. I hate it.	◉	○	The writer is clearly exhibiting emotional symptoms of stress (nerves) and views it as a negative situation ("I hate it").
We ended up ending the relationship, and it sucks. I miss her a lot. But I hope she's doing well.	○	◉	The writer is sad about the situation, but shows no stress— they are not dwelling on it or ruminating.
I have no idea what to even try. My anxiety just gets the best of me every single time and I can barely make conversation most of the time.	◉	○	The writer is clearly exhibiting emotional symptoms of stress and feels lost.

Please label the following five text snippets and press the "Submit" button when you are finished.

Figure 8: Our full annotation instructions.

Text	Gold Label	Agreement	Subreddit Name	Models Failed
We had 2 classes together, so we spent a few hours together most days working through problem sets. This next semester, I won't even have that. I'll probably be in more isolation this time around. Any tips are appreciated. Thanks!	Stress	80%	stress	Both
I developed and was diagnosed with PTSD 5 months later., I was having trouble sleeping (still kind of do), hypervigilant, moody and suicidal at times. I never thought I would make it through...but looking back,I used every single coping skill possible to survive, even if that meant calling crisis every day. I'm not perfect today but I really see the light at the end of the tunnel. I look forward to my future.	Not Stress	57%	ptsd	Both
She's the first person I've ever really opened up to. I haven't told her everything about whats happened, but she does know about my anxiety (which I get from my PTSD) and she reacts sportively to it. To some extent, I let me be "myself" around her, whatever I am. She's moving. She's moving to Maryland.	Stress	80%	ptsd	BERT
Sorry for the essay, poor grammar and punctuation. Thursday night. I asked a friend what they were up to tonight by text and instantly got a phone call after. Now usually Id ignore their called calls due to the worry of having an awkward phone conversation. This time I answer and we agree for them to come over.	Not Stress	57%	anxiety	BERT
We are in an uneasy peace right now, and i don't touch her although i am still the same caring guy but with precautions. What did i do to deserve this? and why do bad men get the good wife that sticks around and the good men always lose? I want to have my life back but i cannot see how? filling for a divorce will create a huge scandal since we are a minority as Christians and church laws prevail her, so i am also looking at a minimum of 6 years till any verdict is made.	Stress	100%	relationships	LogReg

Table 10: **Additional Error Analysis Examples**. Supplementary examples for our error analysis. "BERT" refers to the state-of-the-art BERT-base model, while "LogReg" is our best logistic regressor described in section 6.