Overall, I finished all the main part of this homework and got a Held-out classification accuracy of 0.82. I also completed the attachment_accuracy and heuristic_attachment_accuracy and the corresponding functions.

I extracted the features as shown in the following:

```
yield ("Buffer size", len(self.buffer))
yield ("Stack size", len(self.stack))
yield ("Part of the speech", index)
```

```
yield("Top of the stack",stop_word)
yield("Top of the stack pos",stop_pos)
```

```
yield("Top of the buffer",b1_word)
yield("Top of the buffer pos",b1_pos)
yield("Top two of the buffer",b1_word + ' ' + b2_word)
yield("Top two of the buffer pos",b1_pos + ' ' + b2_pos)
```

```
left_most_verb = None
for i in range(1, len(self.words)):
    if self.pos[i] == 'VERB':
        left_most_verb = self.words[i]
        break
if left_most_verb is not None:
    yield ("Left most verb", left_most_verb)
else:
    yield ("Left most verb", "None")
```

They are the current buffer size, the current stack size and the current index, also the top 1 word with its POS, the top 2 words with POS both together and separately. I also tried the left most verb, but this didn't really help in Classification acc but in attachment acc.