## Chapter 1

## Conclusion

The research presented here on linear combinations of embeddings has highlighted an interesting fact. It has been shown that this simple input representation technique is surprisingly powerful. When it comes of

Future work in this area requires not just the construction of adversarial examples; but of the determination of how common they are in practice. Adversarial examples are not ubiquitous in real world tasks. It is important not to succeed on only these cases, while failing on the more common simple cases.

It is also important to consider how adversarial such a challenging case is. In ??, the ordered task which was to make predictions for colors for which the different words in the name could appear in different orders to describe different colors. For example bluish green and greenish blue are different colors. However, they are very *similar* colors. As such the error from discarding word order, is less than the error from using a more complicated model such as an RNN. Such a more complex model is harder to train, and those practical difficulties can dominate over a small amount of theoretical lack of capacity.