**Assignment 6**

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PSYC 6380: Multivariate Statistics

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**Part 1**

**Questions**

***1***

Based on Kaiser’s recommendations, the ratings appear to load onto 2 factors.

Eigenvalue for factor 1: 4.06

Eigenvalue for factor 2: 2.04

***2***

**Figure 1**

*Scree Plot of Eigenvalues*

Chart, line chart

Description automatically generated

***3***

Communality for Item 1: 0.54

Communality (or reliability) is the proportion of variance in the observed scores that are accounted for by the true scores (or the underlying factors).

***4***

Factor 1: Items 3, 6, 7, 9, 10

Factor 2: Items 1, 2, 4, 5, 8

***5***

The items that loaded on to Factor 1 all conceptually pertained to participants’ ratings of fierce characteristics that could generally describe fierceness in terms of being confident. On the other hand, the items that loaded on to Factor 2 all conceptually pertained to participants’ ratings of fierce characteristics that could generally describe fierceness in terms of being persistent. These results suggests that the scale has a two-factor structure: one factor that pertains to ratings of fierceness as confidence; and another that pertains to ratings of fierceness as persistence.