Re: MURI regression models

Kayla de la Haye
Mon 8/12/2019 1:10 PM
To: George Gerald Vega Yon <vegayon@usc.edu>

Looks good. I added some notes in the overleaf file. LMK if you have any questions.

Here are the relevant reviewer comments from Jen's paper that we should consider in your analysis:

Reviewer 1:
1. Motivating the relationship between social intelligence and CI: Since there has already been a positive relationship found between social perceptiveness and collective intelligence I found myself unconvinced that there was a need to explore the relationship between social intelligence and CI. In other words, there could be other aspects of social intelligence besides social perceptiveness, but why would we want to examine these?
a. In particular, I don't think that the current explanation that people may be socially perceptive but behave in ways that disregards others' needs currently works because prior work has already found a positive association between social perceptiveness and CI.
b. Perhaps another way to motivate could be that prior research has found that social perceptiveness is related to CI but although the focus has been on social perceptiveness, it is really social perceptiveness and other aspects of social intelligence that are in fact the predictors of CI.
*George - this helps motivate your analyses. What social intelligence features (measured using our 11 subscale), **beyond the RME score for social perceptiveness**, ALSO predict collective intelligence. This is what is new in this paper.
4. Descriptives and Regression Results: it would have been helpful to see the correlations between the variables and to see the full regression table in Table 2 even if the coefficients were not significant.
5. Alternative explanations: rather than seeing the different dimensions of social intelligence I initially expected there to be a composite score for social intelligence. Another way to model social intelligence could be to take the average and range across all measures of social intelligence (or categorize this variable so that teams are either high on all, high on some, or none at all) to determine whether having "too much" of these social abilities would inhibit CI (as you suggest in the discussion section).
*George: The 11 social intelligence subscales are definitely not explained by 1 factor score; we tested that. We did think about trying to create profiles of social intelligence for people or groups: i.e., could we summarize people who are average across most of the 11 subcales, people that are high on some, or low on some, etc. But then we'd also want to summarize these profiles at the group level to predict CI and that seemed to get quite messy. Overall, this gets at the ideas you are looking at: what is the best way to summarize these 11 subscales that theoretically represent social intelligence, but from a data perspective are certainly not represented by 1 underlying factor.

Reviewer 2:
1. Contribution to Theory: we already know from prior work by Woolley and her collaborators, that RME (social perceptiveness) is tied to higher team performance (CI). What is the contribution this manuscript makes above these known results?
2. Empirical analyses (regressions). I am not entirely convinced by the empirical analyses. They appear very hand picked, and not to sufficiently control for critical measurements. For example Model 1 in Table 2 does not include social gregariousness range, while Model 2 & 3 do not include gregariousness mean. I would really like to see several full regression models that include, at a minimum, (a) all control variables, (b) all network measures, and (c) all social intelligence measures.
*George - the work you are doing will help us respond to this. We'll want to update tables in our paper (perhaps appendix) with the full set of regression results
3. Reproducibility of scientific c research is critical, especially given the intense discussion in the field of psychology Please provide the full protocol including all instructions and survey items in an online supplement. Please share your data and analysis scripts (R, SPSS) for reproduction purposes in an online archive (e.g., Harvard DataVerse).
*George - we'll want to address this with documentation for your analyses
4. The factor analysis of the different social traits is a great idea. I like it. I'm concerned about possible common method bias when items from different measurement instruments are combined in that way. Maybe some items load on the same construct simply because they are part of the same measurement instrument.
*This is a good and important point. RME (aka social perceptiveness) is the one and only measure that is performance based (they are exposed to visual stimuli of faces, and then are scores based on having picked the correct answer for the emotion of that face in multiple choice set). All other measures (5 personality subscales, and the 6 other social intelligence subscales are self-reports on typically behavior (e.g., do you usually do X; agree/disagree). Something to think about in your analyses (and I think there are whole biostats/psych theories and methods to deal with this).
5. Figure 1. Factor loadings of 11 measures onto 3 social intelligence factors. I would like to see the full factor loading table that shows all cross loadings, and highlights which items are drawn from which measurement instrument.
*George - If you report factor scores, this would be detail to include
6. Please include a standard cross correlation table of all study variables (esp. including all the different group-level aggregates of individual level measures (mean & range)

From: George Gerald Vega Yon <vegayon@usc.edu>
Sent: Friday, August 9, 2019 3:39 PM
To: Kayla de la Haye <delahaye@usc.edu>
Subject: Re: MURI regression models

Hey Kayla, here is a link to the plan. I'll be righting all this into a paper fashion.

https://www.overleaf.com/4759957167pzfmycncmqrt

We can chat on Monday about this :).

Best,

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From: George Gerald Vega Yon <vegayon@usc.edu>
Sent: Tuesday, August 6, 2019 11:07:07 AM
To: Kayla de la Haye
Subject: Re: MURI regression models

Thanks Kayla! I really appreciate it. I'll send you the plan asap

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From: Kayla de la Haye <delahaye@usc.edu>
Sent: Monday, August 5, 2019 11:21:41 PM
To: George Gerald Vega Yon
Subject: MURI regression models

George,

I've attached Jen's paper; you can see the regression models she ran using the 3 social intelligence (SI) factor scores and the RME scores, to predict group collective intelligence (CI).

I've attached a second document that describes the variables (and variable labels) she used in her regression models, and the variables that you should use in these new regression models.

You should have both the "group-level" (MURI_AllSurveys - FINAL - Group level data_11-9-18) and "individual-level" (MURI_AllSurveys - FINAL_073018) data sets; LMK if you don't. And LMK if you have any questions. Perhaps send me a plan for the analysis before you get started.

thanks
Kayla

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