**Peer Review and Communication History**

**Ms Title**: Prejudice towards sex workers depends on the sexual activity and autonomy of their work, hobbies and daily activities

**Author Names**: Dax J. Kellie, Khandis R. Blake, Robert C. Brooks

**Submitted**: July 26, 2020

**Editor First Decision—Revise & Resubmit**

Nov 29, 2020

Dear Dax J Kellie,

First, please accept my apology for the significant delay in processing your manuscript, “Prejudice towards sex workers depends on the sexual activity and autonomy of their work, hobbies and daily activities”. Given the pandemic and all of its consequences, it perhaps will not surprise you that I struggled to find multiple reviewers. I myself found that my work flow was disrupted far more than I’d expected.

In the end, I decided to proceed with the single review I was able to obtain, along with my own independent reading of the manuscript. The reviewer and I agree that your manuscript has important strengths and only minor issues that need to be addressed. I therefore encourage you to submit a revised version for further consideration at Collabra: Psychology.

The reviewer’s opinion resonates strong with my own. Like them, I very much appreciate the tone of the paper and commend you for your transparency and adherence to open science practices. And like them, I appreciate the use of multiple well-crafted vignettes.

The reviewer asks only for some conceptual unpacking of the results in the Discussion section. For my own part, I would like to see two additional analyses.

First, for the sociosexual orientation and mate value measures, I would like to see additional validity evidence. Coefficient alpha can be problematic as a measure of reliability, so you should check first to see whether alpha is appropriate with your data. Coefficient omega might be a better metric (<https://doi.org/10.3389/fpsyg.2016.00769>). I would also like to see a check on the assumed factor structure, as prior validity evidence does not necessarily apply to every sample for which the measure is used (<https://doi.org/10.1177/1948550617693063>). This could be included in supplementary materials.

Second, I would like to know what the results look like without the covariates included in the model. This is not your preregistered analysis, but it’s important to see the results without covariates (<https://doi.org/10.1177/0956797611417632>) and so I would like to see these added to supplementary materials. (As a side note, you do not mention the inclusion of covariates in your data analysis overview. This should be noted and justified.)

As a minor point, I would recommend relabeling “sex” as “participant sex” in Table 1. Although you only used female targets, it just saves the reader the step of needing to remember that.

In summary, I think this is a promising manuscript and, I hope you will revise it for further consideration at Collabra: Psychology. I look forward to receiving your revision.

Please ensure that your revised files adhere to our author guidelines, and that the files are fully copyedited/proofed prior to upload. Please also ensure that all copyright permissions have been obtained. This is the last opportunity for major editing, therefore please fully check your file prior to re-submission.

If you have any questions or difficulties during this process, please contact the editorial office at editorialoffice@collabra.org.

We hope you can submit your revision within the next six weeks. If you cannot make this deadline, please let us know as early as possible.

Sincerely,

Kimberly Quinn

**Reviewer 1**

**Open response questions**

Please write your review here. The author(s) will see this review. Your identity will not be revealed to the authors unless you also include your name (i.e., sign your review) in this box. It is up to you whether to reveal your identity or not, either is fine.

The authors present a sound exploration of various possible factors driving stigmatization of females involved in sex work, a group that experiences high rates of stigma and violence. Their work is pre-registered—and deviation from the pre-registered analysis plan is noted upfront—and carried out well. All of the hallmarks of open science and credibility I expect from research in the journal are there. Frankly, I don’t have very much to quibble with here, so I make some very brief suggestions to help the reader understand the results. In all, I see this manuscript as a good fit for Collabra and otherwise recommend it for publication.

First, I want to note that I appreciate the non-moralizing, non-judgmental tone of the piece. I’m sure we’ve all noticed this, but it’s worth pointing out and appreciating.

Second, the authors providing empirical tests of various accounts for a noteworthy phenomenon. They didn’t shy away from explanations that might seem morally unfavorable, which is crucial for scientists. Whether or not we want to act to change the world for the better, part of our job is undoubtedly about being able to describe and understand the world as it is (and not how it ought to be).

I also appreciate the way that they go about this—using numerous, rich vignettes rather than one per cell, even as that may have presented unforeseen problems for interpretation.

With respect to the findings, I do find myself wondering about a male comparison group. Would men with exploitative part-time jobs or hobbies be perceived similarly? Would different work/actions be considered exploitative for males—that is, in line with biological markets approaches (and Sexual Economic Theory) as well as sex differences in mate preference work, what sort of heterosexual men’s work would be equivalent here, if any? This might be worth adding to the Discussion, but I leave that to the authors’ discretion.

The one thing I’d very much appreciate seeing in a revision is a further unpacking of the results—particularly the contributors of dehumanization noted in the last sentence in the second paragraph of the Discussion. Terms like “dehumanization” and ”autonomy” get bandied about often without precision; redefining such terms and spelling out extremely clearly what the results do and do not imply–and doing so in readily disgestible langauge–would be a good use text. Why not make it as easy for the reader as possible?

**Rating scale questions**

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| --- | --- | --- | --- | --- | --- |
| The study/studies in this manuscript have strong construct validity (good measures and/or manipulations of the constructs the authors wish to study). (Choose “Neutral” if this is not an empirical manuscript) |  |  |  | ✔ |  |
| The study/studies in this manuscript have strong statistical validity (appropriate statistical tests, assumptions are clear and reasonable, no statistical errors, appropriate statistical inferences, etc.). (Choose “Neutral” if this is not an empirical manuscript) |  |  |  | ✔ |  |
| The study/studies in this manuscript have strong internal validity (any causal claims or implications are well-justified, alternative explanations are thoroughly considered, etc.). (Choose “Neutral” if this is not an empirical manuscript, or no causal claims are made or even vaguely implied.) |  |  |  |  | ✔ |
| The study/studies in this manuscript have strong external validity (authors appropriately constrain their conclusions based on the limits of the generalizability of their findings to other contexts (including from lab to real world), other populations, other stimuli or measures, etc.) |  |  |  | ✔ |  |

**Author Response**

Feb 25, 2021

# Response to Reviewer #1:

We would like to thank Reviewer #1 for their constructive feedback of our manuscript. Our response to the reviewer is as follows (with the reviewer’s comments in blue):

The authors present a sound exploration of various possible factors driving stigmatization of females involved in sex work, a group that experiences high rates of stigma and violence. Their work is pre-registered—and deviation from the pre-registered analysis plan is noted upfront—and carried out well. All of the hallmarks of open science and credibility I expect from research in the journal are there. Frankly, I don’t have very much to quibble with here, so I make some very brief suggestions to help the reader understand the results. In all, I see this manuscript as a good fit for Collabra and otherwise recommend it for publication.

First, I want to note that I appreciate the non-moralizing, non-judgmental tone of the piece. I’m sure we’ve all noticed this, but it’s worth pointing out and appreciating.

Second, the authors providing empirical tests of various accounts for a noteworthy phenomenon. They didn’t shy away from explanations that might seem morally unfavorable, which is crucial for scientists. Whether or not we want to act to change the world for the better, part of our job is undoubtedly about being able to describe and understand the world as it is (and not how it ought to be).

I also appreciate the way that they go about this—using numerous, rich vignettes rather than one per cell, even as that may have presented unforeseen problems for interpretation.

1. With respect to the findings, I do find myself wondering about a male comparison group. Would men with exploitative part-time jobs or hobbies be perceived similarly? Would different work/actions be considered exploitative for males—that is, in line with biological markets approaches (and Sexual Economic Theory) as well as sex differences in mate preference work, what sort of heterosexual men’s work would be equivalent here, if any? This might be worth adding to the Discussion, but I leave that to the authors’ discretion.

As suggested, we have added discussion of two points related to the referee’s comment: (1) The limitations faced of not having a male comparison group, and (2) why male sex workers might be dehumanized in a similar way to female sex workers. There are few specific hypotheses among evolutionary or sexual economic theory of why male sex workers are stigmatised, but we have added some discussion of several ongoing hypotheses of homophobic biases that commonly associate with male sex work:

“Our study has investigated dehumanizing perceptions of women, but it remains unclear how their dehumanization compares to that of men who engage in exploitative or transactional work. It may be that both men and women engaging in such work are perceived similarly, or that sex differences in such perceptions exist. Globally, male sex workers endure a great deal of stigma commonly linked to negative stereotypes of sexually transmitted diseases and homosexual sexual orientation (Jiao & Bungay, 2018; Oldenburg et al. 2014; Padilla et al. 2008; Tsang et al. 2019). Although theories referred to in the current study make few predictions of why men who engage in transactional sexual exchanges might be dehumanized, some evidence suggests that negativity towards male sex workers is the result of disgust-based reactions towards homosexual relationships (Terrizzi Jr. et al. 2010) or stereotype-based reactions to promiscuous same-sex relationships that undermine the goals of marriage (Pinsof & Haselton, 2016, 2017). Understanding the absence or presence of sex differences in these phenomena may provide needed insight into the ultimate, functional drivers of this stigma. We recommend that future studies of this type are expanded to compare male and female sex workers.” (p. 23)

1. The one thing I’d very much appreciate seeing in a revision is a further unpacking of the results—particularly the contributors of dehumanization noted in the last sentence in the second paragraph of the Discussion. Terms like “dehumanization” and ”autonomy” get bandied about often without precision; redefining such terms and spelling out extremely clearly what the results do and do not imply–and doing so in readily disgestible langauge–would be a good use text. Why not make it as easy for the reader as possible?

To increase readability and usability of the manuscript, we have read through the entire manuscript and edited for clarity, including simplifying language where possible.

We have edited the sentence identified by the reviewer in the second paragraph of the discussion to more clearly define what is meant by “dehumanization” and “autonomy” into more digestible language of what these terms mean early in our discussion section:

“Rather, how much a woman is dehumanized—or viewed as less able to think, act, sense and feel—appears to be determined on a case-by-case basis and vary from person to person, strongly dependent on a woman’s sexual behavior and, to a lesser extent, her lack of choice or control over her circumstances.” (p. 20)

We have also added an additional paragraph making clear that although our study identifies dehumanizing perceptions towards women, it cannot make predictions about people’s actual behaviours:

“Although our study finds that the amount a fictional woman is dehumanized can be influenced by perceptions of her sexual activity and exploitation, our results do not predict how viewing sexually active and exploited women as ‘less human’ might influence behaviours toward such women in the real world. Our results are similarly not definitive about what motivates these dehumanizing reactions towards women. Participants may have viewed women in our vignettes as less human in an effort to distance themselves from a disliked subgroup (e.g., Vaes et al. 2011), because they desire social structures that control women’s sexual behaviour (e.g., Smuts, 1995), because they use dehumanization to emotionally cope with knowing the physical and emotional risks of exploitative conditions (e.g., Cameron et al. 2015), or because their experiences and personal upbringing has shaped their views (e.g., Čehajić et al. 2009). These differences in motivation to dehumanize women may further clarify why the perceptions of each woman still varied so much, even when belonging to the same experimental condition. Future research can refine our knowledge of why women are dehumanized, and when these motivations can lead to changes people’s behaviour towards women.” (p. 22)

# Response to Editor Comments:

We would like to thank the editor for their helpful feedback. Our response to the editor is as follows (with the editor’s comments in blue):

The reviewer’s opinion resonates strong with my own. Like them, I very much appreciate the tone of the paper and commend you for your transparency and adherence to open science practices. And like them, I appreciate the use of multiple well-crafted vignettes.

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1. First, for the sociosexual orientation and mate value measures, I would like to see additional validity evidence. Coefficient alpha can be problematic as a measure of reliability, so you should check first to see whether alpha is appropriate with your data. Coefficient omega might be a better metric (<https://doi.org/10.3389/fpsyg.2016.00769>). I would also like to see a check on the assumed factor structure, as prior validity evidence does not necessarily apply to every sample for which the measure is used (<https://doi.org/10.1177/1948550617693063>). This could be included in supplementary materials.

We have calculated omega coefficient values for Mate Value and SOI measures as suggested. Results suggest good measure reliability (*ωMate Value* = .93; *ωSOI* = .86). Omega coefficient values have also been added to the manuscript.

In addition, we have conducted a confirmatory factor analysis of our assumed factor structure of our main dependent variable, Humanness.

Results showed a significant high User Model test statistic with high degrees of freedom (*χ*220 = 11083.91; *p* < .001), indicating an over-identified model. Other test statistics further indicated that the Humanness factor structure was not a good fit to the data (CFI = .78, TLI = .69, SRMR = 0.07, RMSEA = .2). This result suggests other measures may be more suitable to measure dehumanization on this kind of data in future research.

We then elected to run a confirmatory factor analysis of the separated agency/patiency factor structure as a comparison to our single Humanness measure. Results revealed that, compared to the Humanness measure, the agency/patiency factor structure was a *slightly* better fit to the data, indicated by a smaller chi-squared value and fewer degrees of freedom (*χ*219 = 8841.85, *p* < .001), yet still the results showed this factor structure was not a good fit to the data (CFI = .83, TLI = .74, SRMR = 0.07, RMSEA = .18). Overall, however, there was a minimal difference between the separate agency/patiency factor structure and the single Humanness factor structure. This is likely because the two factor structures utilise the same items and therefore capture similar variation in the data (compared to adding or removing additional items).

Confirmatory factor results and additional interpretation are included in supplementary material. The inclusion of the additional CFA is now mentioned in the manuscript, along with information to make these results and their interpretations more meaningful to the reader:

“Additional confirmatory factor analysis on the selected factor structure indicated that this factor structure is not a very good fit to the data (CFI = .78, TLI = .69, SRMR = 0.07, RMSEA = .2), or in other words, the observed data does not closely match the hypothesized relationships of our chosen factor structure. We recommend that readers interpret the current study’s findings acknowledging that the *humanness* dimension explains 45% of the overall variation in participants’ ratings. Confirmatory factor analyses can be found in the supplementary material (<https://osf.io/xnm53/>).” (p. 15)

1. Second, I would like to know what the results look like without the covariates included in the model. This is not your preregistered analysis, but it’s important to see the results without covariates (<https://doi.org/10.1177/0956797611417632>) and so I would like to see these added to supplementary materials. (As a side note, you do not mention the inclusion of covariates in your data analysis overview. This should be noted and justified.)

Model results without covariates have been added to the supplementary material and noted within the Results section:

“Significant results remained unchanged when covariates were omitted from the model (see supplementary material).” (p. 17)

A statement about the inclusion of covariates in our model with justification of inclusion has been added to the methods section:

“To control for variation in ratings due to each participant’s sexual behaviour preferences and value in the mating market, participant SOI and mate value were included in the model as covariates.” (p. 16)

1. As a minor point, I would recommend relabeling “sex” as “participant sex” in Table 1. Although you only used female targets, it just saves the reader the step of needing to remember that.

Table 1 has been revised to refer to “participant sex” as suggested. (p. 19)

In summary, I think this is a promising manuscript and, I hope you will revise it for further consideration at Collabra: Psychology. I look forward to receiving your revision.

**Editor Final Decision—Accept**

May 10, 2021

Dear Dr. Kellie,

First, please accept my apology for how long this process has taken. The past six months have been very difficult, and unfortunately my work has suffered. I think we’ve all come to accept that delays are “normal” these days, but I strongly dislike being one of those delays.

I have now had a chance to read over your manuscript “Prejudice towards sex workers depends on the sexual activity and autonomy of their work, hobbies and daily activities”, along with the letter describing the changes you made. Thank you for your responsiveness to the concerns that the reviewers and I raised. I am happy to say that your paper is now officially accepted for publication in Collabra: Psychology. Congratulations on this excellent work, I think it will make an important contribution to the literature and I look forward to seeing it published! I hope your experiences with Collabra: Psychology have been positive and that you will continue to consider it as an outlet for your work.

As there are no further reviewer revisions to make, you do not have to complete any tasks at this point. Our managing editor will contact you in case there are any pre-prodution file related questions. You will have an opportunity to check the page proofs before we publish your article. Thank you again for publishing in Collabra: Psychology.

Sincerely, Kimberly Quinn