

# Perceptions of Mask-Wearing Compliance on Public Transit During COVID-19

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## INTRODUCTION

*The COVID-19 pandemic presents unique challenges for governments in the development and enforcement of public safety policies. The success of these aims depends greatly on maximizing compliance of mitigating practices, such as mask-wearing.*

This study examines the influence of compliance with mask-wearing policy on perceptions of characterological and relational dimensions. As mask-wearing has become socially and morally normative (Prosser, Judge, Bolderdijk, Blackwood, Kurz, 2020), we hypothesized that mask-wearing compliance would produce more positive perceptions than mask-wearing non-compliance.

Recent studies have demonstrated that personality factors, such as agreeableness and conscientiousness are associated with greater compliance of mitigating practices (Zajenkowski, 2020; Brouard, 2020), while high entitlement, narcissism, and ideological extremism are associated with lower compliance (Brouard, 2020; Zajenkowski, 2020; Zitek, 2020). Other studies implicate situational factors, such as boredom proneness (Boylan, 2020) and at least one suggests that situation may matter more than personality when it comes to predicting compliance (Zajenkowski et al., 2020).

Moralization of mitigating factors (e.g., mask-wearing and physical distancing) may lead to greater compliance, but it may also produce reactivity. When people feel judged for “breaking the rules”, they may also react by becoming more entrenched in their non-compliance, which may aggravate social interactions and exacerbate polarization (Prosser et al., 2020).

Research that helps to clarify the mechanisms of compliance in the current situation has important implications for the framing of public policy.

## Method

### Participants

A total of 198 Langara psychology students between the ages of 18 to 54 (146 = female, 51 = male) completed an online survey for the study. At the time the survey was taken, 90% of participants were residing in Canada. Participants were randomly assigned to one of two conditions: mask ( $N = 89$ ) and no-mask ( $N = 109$ ).

At recruitment, participants were told they were completing a survey to assess how people respond to a shared experience of the pandemic.

### Variables

- The independent variable (IV) manipulated was compliance, operationally defined as the act of complying with the COVID-19 policy of mask wearing on public transit.
- The dependent variable (DV) measured was perceptions of the protagonist in the scenario and perceptions of pandemic-related safety and public policy measures.

## Results

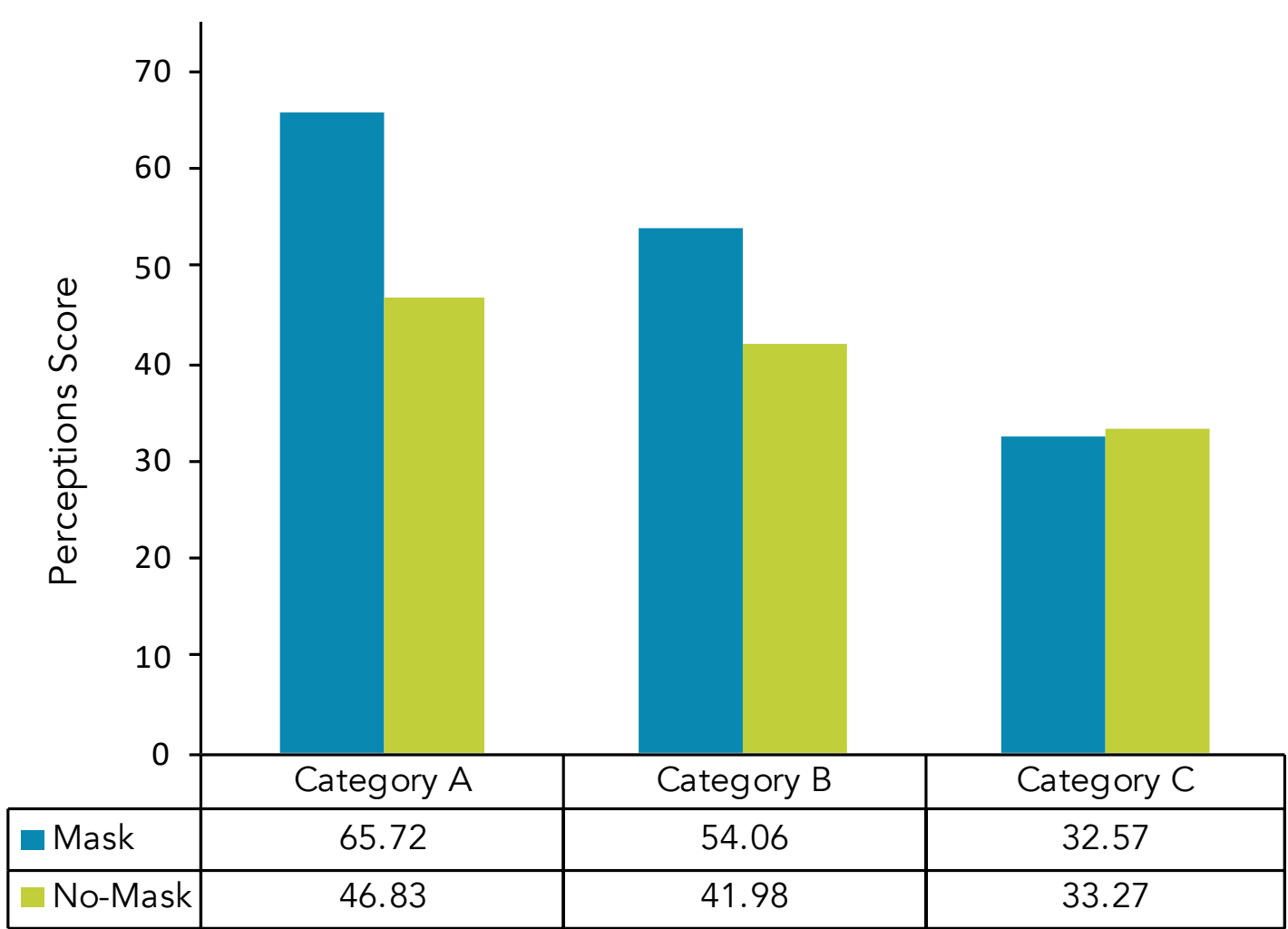
An unrelated t-test was conducted to evaluate the difference of means between our two groups: mask ( $N = 89$ ) and no-mask ( $N = 109$ ) conditions in three categories. (Figure 1)

- Category A comprises questions about behaviour, cognition and personality
- Category B comprises questions about relational dimensions
- Category C comprises questions about safety and public policy

The higher the perceptions scale score, the more positive the perceptions in each category.

Figure 1

Category Comparison of Perception Scores for Mask and No-Mask Conditions



The minimum and maximum perceptions scores for each category differs depending on the number of questions in each category. Thus, Category A has the highest minimum and maximum score, whereas Category C has the lowest.

In Category A and B, participants presented with the mask scenario scored higher on the perceptions scale than participants presented with the no-mask scenario. **There was a significant difference between the scores for the mask and no-mask conditions in both categories; Category A,  $t(196) = 12.75$  and Category B,  $t(196) = 9.92$ ,  $p < .001$ .** In contrast, despite the participants in the no-mask condition scored higher than the mask condition in Category C, the difference was not statistically significant,  $t(196) = 1.23$ ,  $p = 0.2214$ .

### Procedure

Prior to responding to questions/statements, participants were asked to read a scenario specific to their assigned group, in which only the IV (compliance = mask-wearing) was manipulated.

- The mask scenario describes the protagonist about to get onto the Skytrain before realizing they do not have a mask on, and then immediately putting one on before boarding.
- The no-mask scenario describes the protagonist about to get onto the Skytrain before realizing they do not have a mask on them at all but decide to board anyway.

Using a Likert scale (Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree) participants were asked to respond to 50 questions/statements regarding their perceptions of the scenario's protagonist and their perceptions of public transit safety and pandemic-related public policies.

## Discussion

The aim of this study is to examine the influence of compliance on perceptions of people in mandatory mask-wearing environments. The results demonstrated a significant correlation between negative perceptions and mask-wearing non-compliance in mandated public spaces. Results for the mask and no-mask conditions on characterological dimensions and relational dimensions revealed:

- Mask condition: High agreeability & positive perceptions
- No-mask condition: High disagreeability & negative perceptions

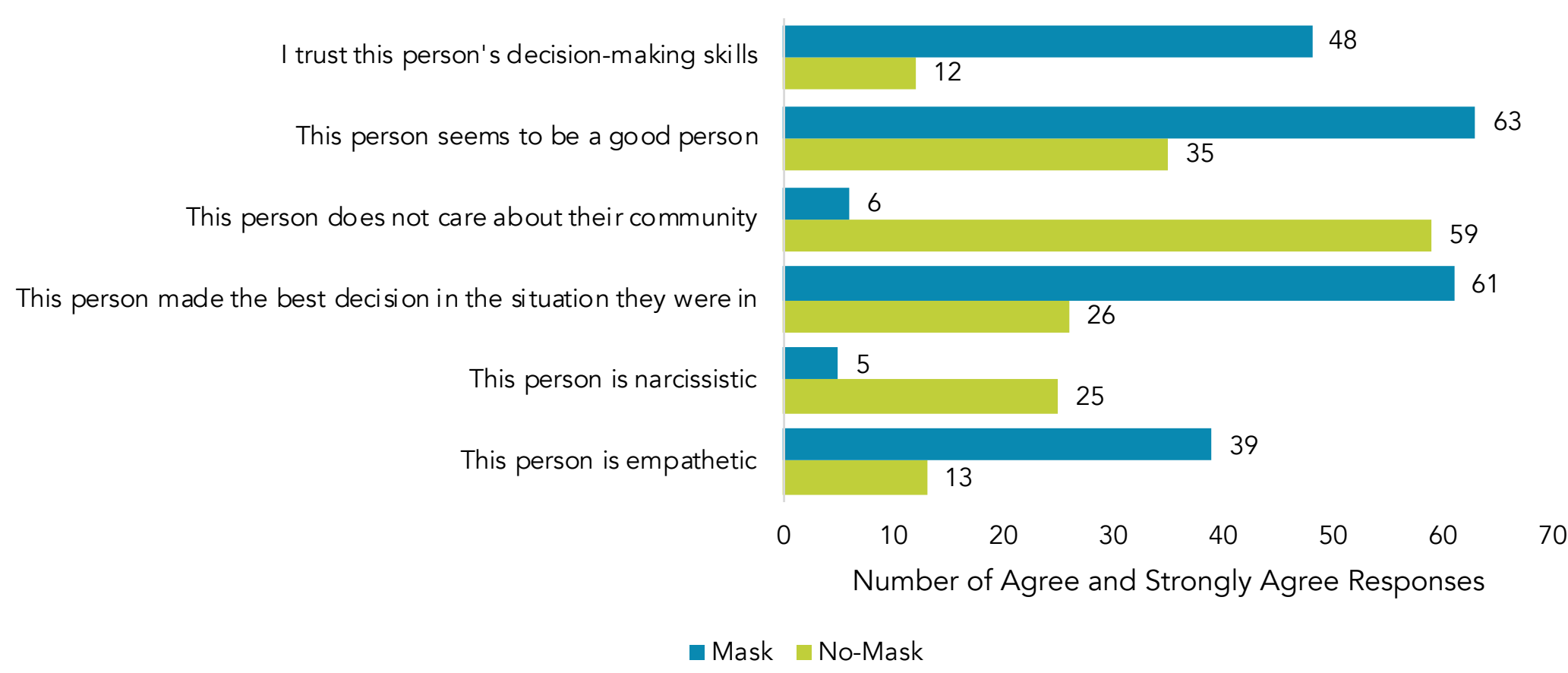
### Interpretation

Given the current environment and normalization of mask-wearing, especially in mandated zones, we expected participants to be more accepting of the mask-wearing scenario than of the no-mask scenario.

Indeed, participants demonstrated more favourable perceptions on characterological and relational dimensions of the protagonist in the mask condition than in the non-mask condition (Figure 2).

Figure 2

Comparison of Agree/Strongly Agree Scores for Select Mask and No-Mask Questions



The difference between the mask and no-mask conditions for perceptions of safety and public policy (Category C) were not statistically significant, which suggests that our randomly assigned groups were fairly uniform and thus, the differences demonstrated towards the protagonist in the mask and no-mask conditions are further validated.

### Implications

Although research directly examining compliance and mask mandated requirements is scarce, some studies have suggested that personality and situational factors both play a role (Brouard, 2020; Zajenkowski, 2020) and that wearing a mask is a highly moralized behaviour (Prosser, 2020).

The results of this study offer insight into the perceptions of those who comply or don't comply with pandemic-related policies. Betsch et al. (2020) demonstrated that mask-wearing produces more positive feelings than non-mask wearing, which our results also indicate.

Overall, the results demonstrate that people have strong perceptions of compliance with pandemic-related policies, which may have implications for how messaging around mitigating practices are framed in order to maximize compliance.

### Limitations

- Generalizability of results may be limited by the representativeness of the sample (psychology students), the sample size and medium of data collection (online survey).
- Category constructs and questions/statements were not validated through empirical methods (i.e., factor analysis)
- Likert scale's undecided scores are ambiguous, “neutral” would be a better measure of attitudes.



Despite limitations, high disagreeability and correlation to negative perception of the no-mask scenario is repeatedly demonstrated in characterological dimension factors.

### Recommendations

- Pre-plan: construct categories to reduce factor exclusions & decrease ambiguity or misinterpretation of factors
- Factor analysis to increase validity of category constructs
- Utilize existing standardize scales that measure personality dimensions for greater reliability of scores
- Pre-test: existing perceptions of safety & public policy for measurement validity

## CONCLUSION

The COVID-19 pandemic offers a unique opportunity to examine the relationship between compliance with pandemic-related policies and the impact this has on the perception of others.

The results of the current study suggest that non-compliance generates negative perceptions, and that moralizing of mask-wearing behaviour may be relevant to these perceptions. This research is timely and may have implications for how future public policy is designed and implemented to ensure optimal adherence to public safety protocols.

## References

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