



Psychological Inflexibility and its Relation to Performance Anxiety, Flow, and Perfectionism in University Musicians

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INTRODUCTION

- Thus far, no studies have examined the relationship between psychological inflexibility and variables of interest with university musicians, like music performance anxiety (MPA), flow, and perfectionism.
- Several ACT studies have observed improvements in psychological flexibility and MPA as part of treatment for MPA (Juncos et al., 2017; Clarke, Osborne, & Baranoff, 2020), yet no analyses of the relationship between those variables were conducted. Recent studies have also examined the relationships among some of these variables, i.e., psychological inflexibility and MPA (Singh & Dudek, 2020), MPA and flow (Cohen & Bodner, 2019), but with samples of community or professional musicians rather than university musicians.
- Psychological inflexibility plays a theorized role in the development and maintenance of anxiety disorders (Eifert & Forsyth, 2005) and clinical perfectionism (Ong et al., 2019).

PRESENT STUDY

Based on previous research, it was hypothesized that:

- Psychological inflexibility would be significantly related to MPA and perfectionism for university musicians from two samples.
- Psychological inflexibility and MPA would be significant predictors of flow experiences in students' music performances.
- Perfectionism, psychological inflexibility and MPA would significantly predict avoidance of weekly practice.

METHOD

Participants

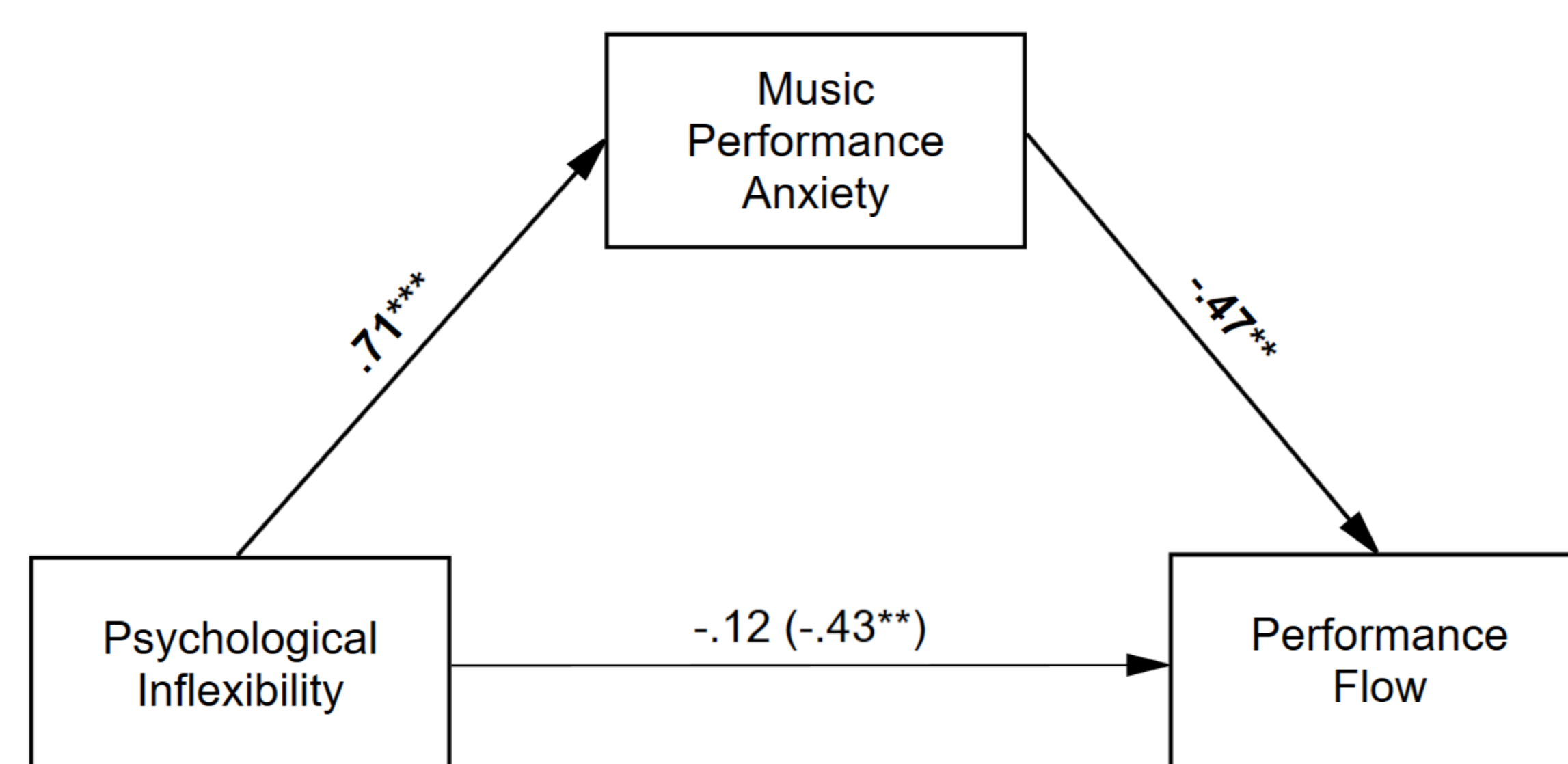
Two samples of English-speaking, university musicians ($N = 122$; 67.79% female, $Age = 21.77$, $SD = 4.58$; $Myers$ of music training = 11.81, $SD = 5.13$) participated in this research as part of a larger study assessing a newer measure of psychological flexibility for musicians (Juncos et al., 2021). Students were music majors from an American university (Butler University) and an Australian conservatory (Melbourne Conservatorium of Music), respectively. Ethics approval was obtained from both universities' IRB's.

Measures

Students completed measures of **psychological inflexibility** (AAQ-II; Bond et al., 2011), **MPA** (KMPAI-R; Kenny, 2009), **perfectionism** (FMPS; Frost et al., 1990), and **flow** (SDFS-2; Jackson et al., 2008). Students' age, gender, and years of music training were noted. Also, students were asked to quantify the number of hours they **avoided music practice** each day within in the most recent week (or each day during a typical week, if they were currently on a break).

RESULTS

Figure 1. Mediation model for the role of MPA in the relationship between psychological inflexibility & performance flow

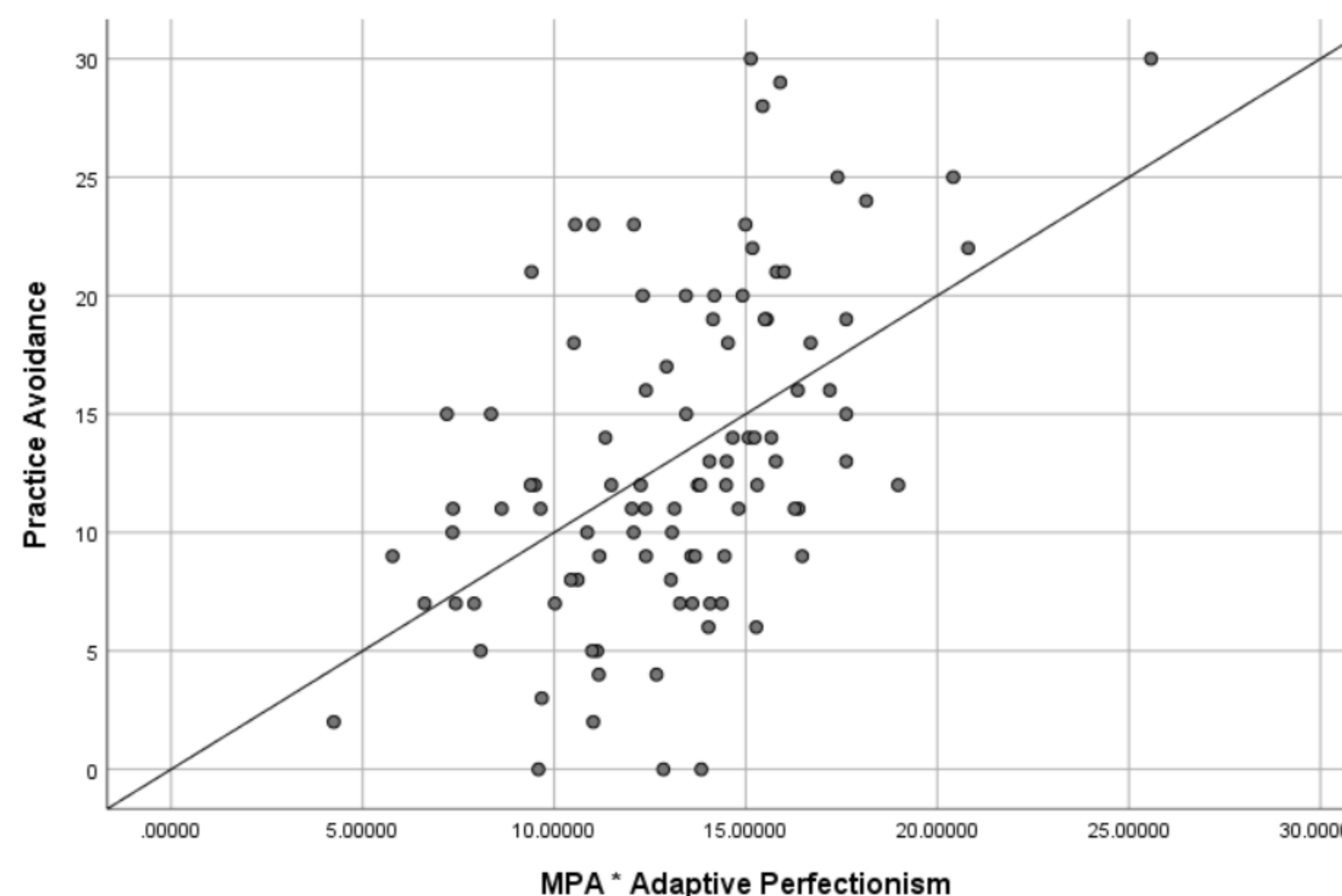


Results showed a fully mediated model ($\beta = -.333$, $SE = .135$, $p < .05$, $CI [-.681, .014]$). This model was consistent regardless of gender, age, and years of musical training. An alternative model, with psychological inflexibility treated as a mediator between MPA and performance flow, showed a non significant indirect effect ($p = .51$). *** $p < .001$; ** $p < .01$.

Table 1. Relationship between psychological inflexibility and two types of perfectionism

	Adaptive Perfectionism	Maladaptive Perfectionism
Psychological Inflexibility	$r = -.16$, $p = .09$	$r = .22$, $p < .05$

Figure 2. Avoidance of weekly practice predicted by the unstandardized variable described by the following equation: 16.19 + .071 (MPA) -.247 (adaptive perfectionism)



A significant regression equation was found ($F(2,94) = 15.80$, $p < .001$) with an R^2 of .252. Whereas participants' adaptive perfectionism and MPA turned out to be the significant predictors, psychological inflexibility and maladaptive perfectionism were not shown to be significant predictors.

DISCUSSION

- As hypothesized, psychological inflexibility showed an indirect effect on performance flow by leading students to experience increased levels of MPA.
- A significant relationship between psychological inflexibility and maladaptive perfectionism was found.
- MPA was a significant predictor of weekly avoidance of practice, whereas adaptive perfectionism had the opposite effect.
- Though further investigation is required, the current study showed psychological inflexibility to be a significant predictor of MPA, which might decrease flow experiences during music performance and also contribute to avoidance of weekly practice.
- **Limitations:** Small sample size; Combining two samples (there were no significant differences among most of the variables between the two samples, however, the samples differed significantly on age, years of music training and adaptive perfectionism mean score); Item-parceling was used to form latent variables in the mediation analyses, which is a common (but controversial) practice.

CONCLUSION

Treatments designed to increase psychological flexibility and improve MPA, e.g., ACT, have the potential to significantly improve musicians' performance success, by increasing their experiences of performance flow and commitment towards weekly practice.

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