

# Multiple motives: Profiles of young Australians' reasons for musical engagement

**James M. Renwick<sup>1</sup> and Gary E. McPherson<sup>2</sup>**

<sup>1</sup> Sydney Conservatorium of Music, University of Sydney, Australia

<sup>2</sup> School of Music, University of Melbourne, Australia

Self-determination theory conceives of motivation as lying along an intrinsic-extrinsic continuum and has been investigated extensively in school learning, but less in performance domains. This paper investigates the ways that students manifest multiple motives for striving in the demanding field of musical performance. Performance examination candidates ( $n=677$ ) aged 8-19 years completed questionnaires. Factor analysis produced five motives lying along the internal-external continuum. Cluster analysis then generated four groups of participants: (1) a group reporting high levels of internal motives and low levels of external motives, (2) a group reporting high levels of all five motives, (3) a group reporting low levels of internal motives and high levels of external motives, and (4) a group reporting low levels of all five motives. Results showed that both groups with high levels of internal motives achieved higher performance results than the two groups with low levels of internal motives. The high-external/low-internal group did not differ in performance achievement from the group reporting low levels of all motives. The study confirms prior research in suggesting that high levels of internalized motives can work together with high levels of external motives to produce excellent performance, but external motives alone are insufficient.

*Keywords:* music education; motivation; self-determination theory; self-efficacy; self-regulated learning

Large-scale studies in the 1990s (Ericsson *et al.* 1993, Sloboda *et al.* 1996) demonstrated the crucial role of deliberate practice in the acquisition of expertise in musical performance, and more recently, researchers (e.g. Austin *et al.* 2006) have discussed the need for powerful motivational resources to sustain such work, which by definition is not inherently enjoyable. Intrinsic

motivation is one construct that has been invoked to account for the developmental shift toward sustained and more self-controlled engagement in the learning of musical performance skills (Renwick and McPherson 2009, Sloboda and Davidson 1996). According to self-determination theory, intrinsic motivation is “the inherent tendency to seek out novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn” (Ryan and Deci 2000, p. 70), whereas people are extrinsically motivated when they engage in an activity such as musical practice in order to obtain a separate outcome, such as a reward, or to avoid punishment or a sense of shame.

The present study builds on our earlier work examining young musicians’ motivational beliefs in light of self-determination theory (Renwick 2008, Renwick *et al.* 2002, 2009) by investigating the possible existence of motivational profiles consisting of different combinations of intrinsic and extrinsic motives. Such multiple goal profiles have been documented in terms of achievement goal theory in academic learning contexts (Meece and Holt 1993, Seifert 1995, Valle *et al.* 2003), and also in terms of self-determination theory in physical education (Boiché *et al.* 2008) and athletics (Gillet *et al.* 2009). Such findings show that high levels of intrinsic motivation (or mastery goals) can coexist with high levels of extrinsic motivation (or ego goals) to predict high levels of achievement. To our knowledge, this possibility has not been investigated in the domain of music performance training; hence, this paper aims to extend our prior variable-centered approach to a person-centered one, by using cluster analysis to identify groups of individuals sharing similar motivation beliefs.

## METHOD

### Participants

We recruited 753 candidates enrolled in a performance examination administered by the Australian Music Examinations Board [AMEB (NSW)]; 677 of these fit our sampling frame of students enrolled in Grades 1 to 8 of the performance syllabus, aged between 8.0 and 19.1 years (mean=13.25), and completed sufficient items for the present analysis. Females comprised 65% of the sample of young people, who undertook the examination on keyboard (55%), woodwind (21%), brass (12%), string (9%) instruments, or voice (3%).

### Materials

The Academic Self-Regulation Questionnaire (Ryan and Connell 1989) was adapted to the music-learning context. This scale assesses students’ motiva-

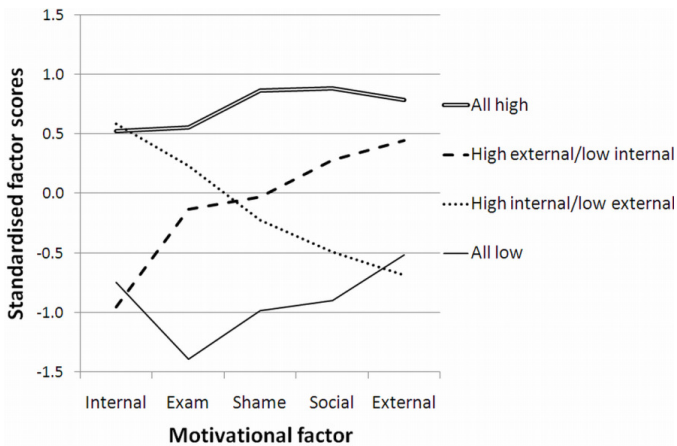


Figure 1. Mean standardized factor scores for each cluster on each motivational factor.

tion to strive in achievement settings in various ways along the intrinsic-extrinsic continuum proposed by self-determination theory. The questionnaire was subjected to exploratory factor analysis and congeneric modeling (Jöreskog 1971), producing five measures of motivation along the following continuum: internal motivation, exam-related motivation, shame-related motivation, social motivation, and external motivation (see Renwick 2008).

## Procedure

Participants completed the questionnaire the night before their examination and delivered it to the reception desk on the day of their examination. Performance grades (ranging from D=1 to A+=7) were obtained from the AMEB (NSW) in the days following the examinations. Following the computation of individual factor scores for the five motivational factors described above, these factor scores were subjected to K-means cluster analysis and differences between cluster groups were computed with analysis of variance (ANOVA).

## RESULTS

Cluster analysis identified four groups of students with distinct motivational profiles (see Figure 1). There were 240 participants reporting high levels of the more internal forms of motivation and low levels of the more external forms (the dotted line on Figure 1); 169 participants reported the opposite pattern: high levels of the more external forms of motivation and low levels of

the more internal forms (the dashed line); 174 respondents reported above-average levels of all five forms of motivation (double line), while the remaining 94 showed below-average levels of all five motives (unbroken line).

A one-way ANOVA was used to test for differences between the cluster groups in terms of their results in the AMEB examination. Achievement differed significantly between groups ( $F_{3,668}=5.13$ ,  $p<0.01$ ,  $\eta^2=0.02$ ). Post-hoc comparisons using the Bonferroni adjustment revealed that the “all-high” group (mean=4.87, SD=1.25) achieved significantly ( $p<0.05$ ) higher results than both the “all-low” group (mean=4.37, SD=1.44) and the “high-external/low-internal” group (mean=4.43, SD=1.46). In addition, the “high-internal/low-external” cluster (mean=4.79, SD=1.38) achieved significantly ( $p<0.05$ ) higher results than the “high-external/low-external” group. Other comparisons were non-significant.

## DISCUSSION

The results of the cluster analysis showed a remarkably clear pattern (although given the exploratory nature of cluster analysis, this finding should be treated with some caution). The four groups were strongly differentiated into (1) a large group reporting mostly internal motivation, (2) a group reporting mostly external motivation, (3) a group reporting high levels of all five types of motivation, and (4) a group reporting low levels of all five types. This finding is consistent with prior research in self-determination theory (Boiché *et al.* 2008, Gillet *et al.* 2009): because researchers have typically found that internal motivation and external motivation are only weakly related ( $r=-0.20$  in the present study), a pattern of motivation whereby students can sustain high levels of a range of motives along the continuum is to be anticipated. Thus, even though research has shown that the provision of extrinsic rewards can undermine intrinsic motivation (Deci *et al.* 1999), it would appear that as part of long-term motivational profiles, extrinsic and intrinsic motives can coexist in a complex interplay.

The study found that high levels of internalized motives (sometimes called mastery goals) can work together with high levels of external motives (sometimes conceptualized as ego goals) to produce excellent performance, but external motives alone are insufficient.

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### **Address for correspondence**

James Renwick, Sydney Conservatorium of Music, Building C41, University of Sydney, Sydney, New South Wales 2006, Australia; *Email*: jrenwick@usyd.edu.au

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