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# Thriving and Striving Around the World: A Cross-Cultural Examination of the Relationship Between Achievement Goals and Flourishing

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## Abstract

The current study examines the relationship between achievement goals (mastery-approach, performance-approach, performance-avoidance, and mastery-avoidance goals) and flourishing (emotional, social, and psychological well-being) in three countries with comparable human development but with different cultural values: USA, Japan, and the Netherlands. Previous research provided an indication for the relationships between achievement goals and well-being but does not allow to draw conclusions on these relationships across cultures. We used a comparable sample of adults ( $N = 919$ ) of the three countries to examine differences between those countries in the relationship between achievement goals and well-being. Results showed that the relationships between mastery-approach goals and well-being were the same for the three countries while different relationships were found for performance-approach and performance-avoidance goals. These findings could be partly explained by the cultural value of competitiveness and collectivism.

**Keywords** Culture values · Well-being · Achievement goals · Flourishing

## 1 Introduction

The Sustainable Development Goals (SDGs) adopted by the general assembly of the United Nations aim to promote well-being for all in a sustainable way (United Nations, 2015). Well-being is essential for physical and mental health, performance, and longer lifespan and is a precondition for (Nunes et al., 2016) and an outcome of (Fukuda et al., 2016) sustainable development. As reflected in the SDGs, well-being is influenced by a multitude of

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societal factors ranging from inequality, quality of education to poverty. At the same time, certain personal variables, including motivation and individual goals account for variability among individuals in well-being (Diener et al., 1999; Emmons, 2003; Steel et al., 2008), although these variables might have different effects across cultures (Church et al., 2014).

The achievement goal theory (Dweck, 1986; Elliot & McGregor, 2001) provides a framework to distinguish between different types of goals that people are committed to in guiding their actions, thoughts, and emotions in achievement settings. Although a large body of research has examined how different types of achievement goals (i.e., mastery-approach, performance-approach, mastery-avoidance, and performance-avoidance goals) relate to one's motivation and achievement (e.g., Payne et al., 2007; Van Yperen et al., 2014), only a small number of studies investigated how these goals might play a role in individuals' well-being (e.g., Datu et al., 2020; Holzer et al., 2022; Howell, 2009). Moreover, achievement goals are rooted within cultural values (see Dekker & Fisher, 2008; Zusho & Clayton, 2011) and Diener and colleagues pointed out the importance of examining goals in understanding well-being for people across different cultures (Diener et al., 1999; Oishi & Diener, 2009). A recent cross-cultural study by Guo et al. (2022) in 77 countries found an association between achievement goals and indicators of well-being, showing a positive relation between mastery-approach goals and life satisfaction, positive affect, meaning in life, and resilience in almost all countries. The study by Guo et al. (2022) was conducted among students and did not consider the other achievement goals apart from mastery-approach goals and their relationship with well-being. The current study aims to fill the gap in the literature by (1) examining the relationship between the four achievement goals and well-being (conceptualized as flourishing: emotional, social, and psychological well-being) instead of only mastery-approach goals, (2) using an adult sample instead of a student sample as is mainly done in previous studies, and (3) comparing this relationship in three different countries with an equal human development (the Human Development Index [HDI]; United Nations, 2022) but with noticeably different cultural values, namely the Netherlands, Japan, and the USA. As such, this study aims to increase our understanding of the achievement goal theory in different cultures and might provide insights on which achievement goals should be emphasized in cross-cultural coaching and training practices across sports, work, and education to best promote well-being.

## 1.1 Achievement Goals and Well-Being

The achievement goal orientation theory is one of the most prominent theories in contemporary motivation literature. According to Diener et al. (1999) motivation is one of the important factors influencing well-being because of its link to meaning in life and affective experiences. Referring to the early work of Dweck (1986; Dweck & Leggett, 1988), Elliot and McGregor (2001) developed the well-known 2×2 model of achievement goals. Mastery goals have an intrapersonal frame of reference and are motivated by learning, with mastery-approach goals emphasizing improving competence, whereas mastery-avoidance goals emphasize avoiding self or task incompetence. Performance goals have an interpersonal frame of reference and are motivated by fear of failure, among which performance-approach goals focus on showing one's competences relative to others, whereas performance-avoidance goals focus on preventing showing incompetence relative to others. In general, a positive relationship is found between a mastery-approach goal and motivation

and performance, and a negative relationship between a performance-avoidance goal and these outcomes, while the results for both mastery-avoidance and performance-approach goals are inconsistent (e.g., Baranik et al., 2007; Elliot & McGregor, 2001; Payne et al., 2007). These meta-analytic findings mainly rely on studies done in Western (mostly USA) countries and hardly allow for the generalizability of these findings across cultures.

There is a considerable body of research using various approaches and conceptualizations to measure and define well-being ranging from the positive aspects of well-being to the absence of diseases, from global life-satisfaction to domain specific well-being, from one dimension to multiple dimensions, and from objective to subjective components of well-being (Lindert et al., 2015). The discussion on the different subjective components of well-being could be traced back to the ancient Greeks distinguishing between the hedonic and eudaimonic school of thought. The hedonic principle is to maximize pleasure and avoid pain. Later conceptualized as combining life satisfaction with maximization of positive and minimizing negative emotions; emotional well-being (e.g., Diener et al., 1999). According to the eudaimonic principle, subjective well-being derives from personal growth and living a purposeful life. Later conceptualized as optimal psychological and social functioning; psychological and social well-being (Deci & Ryan, 2008; Keyes, 1998; Ryff & Keyes, 1995). Building on both principles, Keyes (2002, 2007) made a distinction between flourishing and non-flourishing, also called languishing. Flourishing is defined as having high levels of hedonic (emotional) and eudaimonic (psychological and social) well-being. In this study we operationalize well-being as flourishing because it combines different dimensions of well-being such as satisfaction, personal growth, purpose in life and positive relations.

Research on the relationship between achievement goals and well-being is mainly done on students (e.g., Chen, 2015; Datu & Park, 2019; Guo et al., 2022; Holzer et al., 2022; Howell, 2009; Kaplan & Maehr, 1999; Zhou et al., 2020) and only a small number of studies investigated this relationship in an (young) adult population (Kazak et al., 2021; Van Dam et al., 2020). In all populations, positive relationship between mastery-approach goals and well-being were shown (e.g., Guo et al., 2022; Kazak et al., 2021; Holzer et al., 2022). In contrast to mastery-approach goals, findings for performance-approach goals are inconsistent; both positive (e.g., Chen, 2015; Zhou et al., 2020) and negative relationships (e.g., Kaplan & Maehr, 1999) with well-being were shown as well as zero order correlations (e.g., Howell, 2009; Holzer et al., 2022).

In general, avoidance goals are detrimental to well-being (Elliot, Trash et al., 2011b) and research showed indeed that performance-avoidance are negatively related to well-being (e.g., Huang, 2011; Tuominen-Soni et al., 2008). In contrast to the findings for performance-avoidance goals, in the few studies investigating the relationship between mastery-avoidance goals and well-being (Datu & Park, 2019; Chen, 2015; Howell, 2009; Van Dam et al., 2020) both positive and negative relationships were shown. The positive relationships between both performance-approach as well as mastery-avoidance goals with well-being were mainly found in collectivistic cultures such as China and the Philippines (Datu & Park, 2019; Chen, 2015; Zhou et al., 2020) raising the question if culture might play a role in these relationships.

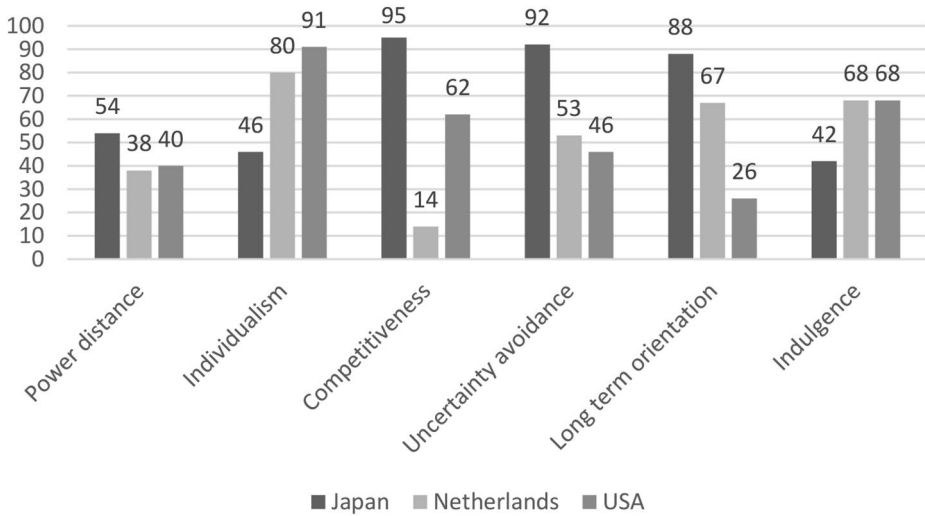
## 1.2 Differences Between Cultures

In their seminal article, Markus and Kitayma (1991) argue that people in different cultures ‘hold strikingly divergent construals of the self, others, and the interdependence of the two’ (p. 224) and as such the goals people strive for and the outcome of these goals depends on their socialization and the values emphasized in their culture (Arrindell et al., 1997; Diener & Lucas, 2000; Hofstede, 2011; Taras et al., 2010).

Several theories and instruments offer useful frameworks for describing and comparing cultures (e.g., Hofstede’s culture value dimensional model, 2011; Inglehart & Baker’s world values model, 2000; Schwartz’s, cultural value orientation theory, 1999). There are clear similarities between these three frameworks, although each one is based on different research methods, time periods and sometimes even different countries. Of these three, Hofstede’s cultural dimensions framework is the most widely used for cross-cultural research. Therefore, we will use Hofstede’s Index of National Culture for the differentiation between the three countries of our study: the USA, Japan, and the Netherlands. These three countries were chosen because of their differences in certain cultural values which distinctions can influence how goals relate to well-being (Hofstede et al., 2002; Triandis, 1988). At the same time, the three countries display similar scores on human development, level of democracy and human rights (Civil Liberties Index, 2023; United Nations, 2022) meaning that differences in the relationship between achievement goals and well-being cannot be explained by substantial differences in income, educational level, health or civil liberties. Lastly, there is a long history of interaction and mutual influence between Japan and the Netherlands, between the USA and the Netherlands and to a lesser extent between the USA and Japan (e.g., Hofstede & Soeters, 2002; Van Zoelen, 2017) which might have led to a more mutual understanding of concepts like achievement goals and flourishing, despite the cultural distance.

The six dimensions of the Index of National Culture (Hofstede et al., 2010) are labelled (1) *power distance*: the extent to which a society expects and accepts that power is distributed unequally; (2) *uncertainty avoidance*: the degree to which a society prefer structured over unstructured situations; (3) *individualism* versus *collectivism* the degree to which people in a society are integrated in a group; (4) *masculinity* versus *femininity*: the extent to which a society favors assertiveness and competitiveness. This dimension is not aimed at gender differences (Hofstede & McCrae, 2004) henceforth, we will refer to this dimension as *competitiveness* (see also Hofverberg & Winberg, 2020); (5) *long term* versus *short term orientation*: the degree to which a society exhibits a pragmatic future-oriented perspective; and (6) *indulgence* versus *restraint* is the extent to which a society controls and regulates basic and natural human desires related to enjoying life. Applying the dimensions to the three countries under study, large differences could be found in competitiveness and noticeable differences in long-term orientation, individualism vs. collectivism and uncertainty avoidance (see Fig. 1). Of these dimensions, competitiveness, individualism, and uncertainty avoidance seem most relevant to achievement goals.

The *competitiveness* dimension displays the largest gaps between the countries, especially between Japan and the Netherlands. In cultures with a low score on competitiveness such as the Netherlands (see Fig. 1), self-actualization and failures as part of the self-actualization process are promoted and effort is praised (Hofstede et al., 2010). In contrast for countries with very high scores on competitiveness, such as Japan and to a lesser extent



**Fig. 1** Scores on Hofstede’s Index of National Cultures for Japan, the Netherlands, and USA (<https://www.hofstede-insights.com/product/compare-countries/>)

USA success is defined in comparison to others. In this context, competition is promoted, success is praised, and failure should be avoided at all costs because of the negative consequences. However, the meaning and consequences of competitiveness might be different in Japan compared to Western countries (see for example, Houston et al., 2005; King et al., 2011). In collectivistic (i.e., low or relatively low on *individualism*) cultures such as Japan, social relationships and expectations of important others are an important part of the self-definition of people (i.e., interdependent view of the self; Markus & Kitayama, 1991). In those cultures, people perceive competition as successful when it results in the improvement of society and themselves (Fulop, 2004) and self-enhancement, an important component of competition, is less prevalent in East-Asian compared to Western cultures (Heine & Hamamura, 2007). In other words, people from more collectivistic countries “are able to compete under the umbrella of cooperation” (King et al., 2011, p. 449), while competition in Western countries resembles a more self-reliant approach.

For *uncertainty avoidance*, cultures avoiding uncertainty try to minimize novel and unknown situations and to prevent anxiety by means of strict laws and rules, structure, and safety measures (Hofstede et al., 2010). Japan is seen as one of the countries with the highest scores on uncertainty avoidance which could be explained by the constant fear of natural disasters consequently resulting in high levels of preparation for every situation, slow decision-making processes, and rituals for everything (Hofstede insight, nd). However, people from East-Asian cultures such as Japan persist in the face of failure because they want to avoid uncertainty while people from the USA persist less after failure (e.g., Heine et al., 2001).

### 1.3 Achievement Goals and Well-Being Across Cultures

Previous cross-cultural research has shown that the achievement goals (e.g., Litalien et al., 2017; Murayama et al., 2009; Zusho & Clayton, 2011) and flourishing (e.g., Keyes et al.,

2021; Żemojtel-Piotrowska et al., 2018) are valid constructs across different countries. As mentioned, research on the relationship between achievement goals and well-being is mainly done on students (e.g., Holzer et al., 2022; Howell, 2009; Kaplan & Maehr, 1999) and with some exceptions (e.g., Chen, 2015; Datu & Park, 2019; Zhou et al., 2020) in Western countries (more specifically the USA). The studies provide an indication that mastery-approach goals are positively related, and performance-avoidance goals are not or negatively related to well-being, while the results for performance-approach and mastery-avoidance goals are inconclusive. Hence, although the positive relation between mastery-approach goals and well-being seems generalizable across different countries (see Guo et al., 2022) there is no clarity so far on whether the pattern of relationships found between the three other goals (performance-approach, performance-avoidance, and mastery-avoidance goals) and well-being are freely transferable across other cultures. Especially, because the few studies done in non-Western countries (e.g., Datu et al., 2020) showed a different pattern compared to Western countries and as pointed out by Elliot et al. (2012) differences between cultures and the related cultural values in the pursuit of achievement goals will likely influence people's well-being.

According to the person-culture match hypothesis (Fulmer et al., 2010) a match between the prevalent motivational orientation of other people in one's environment (e.g., culture values) and a person's own motivational orientation has a positive effect on someone's well-being and flourishing. In other words, the implications of a certain achievement goal for well-being depends on the extent to which this goal is desirable and valued in a certain culture.

There are indications that compared to collectivistic cultures, the promotion of mastery-approach goals is more prevalent in *individualistic* cultures (e.g., Elliot et al., 2001). However, some research demonstrated that the promotion of mastery-approach goals is also promoted in collectivistic cultures (e.g., King et al., 2011; Zusho et al., 2005). The latter is clearly proven by Guo et al. (2022) demonstrating the generalizability of the positive relationship between mastery-approach goals and well-being among 77 countries from all over the world. Hence, we expect that mastery-approach goals are positively related to flourishing in the USA, Japan, and the Netherlands (H1a, b, c).

Performance-approach goals are promoted by high levels of *competitiveness* within a culture (e.g., Harackiewicz et al., 2002). Thus, one could argue that because of the desirability of performance-approach goals in cultures with very high levels of competitiveness such as Japan (see Fig. 1), performance-approach goals will be positively related to flourishing in Japan, negatively related to flourishing in the Netherlands because of its' very low level of competitiveness and unrelated to flourishing in the USA because of the moderate level of competitiveness in the USA. There is some empirical evidence to support this claim. Datu et al. (2020) and Tian et al. (2017), for example, found that competitiveness and the related performance-approach goals are associated with flourishing in East Asian countries most likely because of the more positive interpretation of competition in those countries (see King et al., 2011). In contrast, zero order or negative correlations were found in studies done in Western countries (e.g., Holzer et al., 2022; Howell, 2009; Van Dam et al., 2020). We, therefore, expect that performance-approach goals are not related to flourishing in the USA (H2a), positively related to flourishing in Japan (H2b), and negatively related to flourishing in the Netherlands (H2c).

A preference of avoidance goals (mastery-avoidance and performance-avoidance goals) is more likely to occur in collectivistic cultures compared to *individualistic* cultures because in collectivistic cultures people may be more motivated to regulate their goals in an avoidant manner (Elliot et al., 2001). In line with this notion, Zusho et al. (2005) showed that Asian American students were more inclined to endorse performance-avoidance goals compared to Anglo American students. In addition, a study by Luo et al. (2014) showed that students with an interdependent self-construal (an indicator of collectivism; Oyserman et al., 2002), were more inclined to endorse mastery-avoidance goals compared to students with an independent self-construal (an indicator of individualism). Interestingly, in their classic study, Oyserman et al. (2002) did find differences in the level of individualism but not in the level of collectivism between Western countries and Japan. This finding makes it hard to state that a preference for avoidance goals in certain countries is only due to the differences in the level of *individualism*, as this preference could maybe also be attributed to the level of uncertainty avoidance. Japan has a high level of *uncertainty avoidance* (Hofstede’s et al. 2010; see Fig. 1). As a result of this, a preference for avoidance goals seems more likely in Japan compared to the USA and the Netherlands because of an emphasis on avoiding negative outcomes and risks for which avoidance goals might be beneficial.

Contrary to individualistic cultures, avoidance goals appear to be less maladaptive in collectivistic countries (Elliot et al., 2001; King, 2016), even resulting in positive relationships between mastery-avoidance goals and indicators of well-being, while performance-avoidance goals seems to be unrelated to indicators of well-being (e.g., Chen, 2015; Datu & Park, 2019). In contrast, most research done in Western cultures found a negative relationship between performance-avoidance goals and (indicators of) well-being (e.g., Diaconu-Gherasim et al., 2024; Huang, 2011; Tuominen-Soni et al., 2008; Van Dam et al., 2020). The scarce research on the relationship between mastery-avoidance goals and well-being demonstrated that mastery-avoidance goals are negatively associated with (indicators of) well-being in Western countries, specifically in the USA (e.g., Howell, 2009). Yet, in the Netherlands this negative association was not found (Van Dam et al., 2020), which may be explained by this country’s low score on competitiveness and a strong focus on self-actualization. Taking into consideration the differences in cultural values between the three countries and based on previous research we expect that performance-avoidance goals are negatively related to flourishing in the USA (H3a) and the Netherlands (H3c) and that they are unrelated to flourishing in Japan (H3b). Finally, we expect mastery-avoidance goals to be negatively related to flourishing in the USA (H4a), positively related to flourishing in Japan (H4b), and unrelated to flourishing in the Netherlands (H4c; see Table 1 for an overview of the hypotheses).

**Table 1** Expected relations between achievement goals and flourishing

Note: US=United States, JP=Japan, NL=Netherlands  
+ positive, - negative, and +/- no relationship

|           | Mastery |     | Performance |     |
|-----------|---------|-----|-------------|-----|
| Approach  | USA     | +   | USA         | +/- |
|           | JP      | +   | JP          | +   |
|           | NL      | +   | NL          | -   |
| Avoidance | USA     | -   | USA         | -   |
|           | JP      | +   | JP          | +/- |
|           | NL      | +/- | NL          | -   |



## 2 Method

### 2.1 Participants and Procedure

The data were collected by Research Now, a research agency, from a representative sample of adults based on age and gender, from the USA ( $N=310$ ), Japan ( $N=304$ ), and the Netherlands ( $N=305$ ). The mean age of the total sample was 45.7 (14.8) years, and 50.4% identified themselves as female. Employment or self-employed: USA 65.8%, Japan 62.2%, and the Netherlands 68.2%. Educational level: secondary level or lower education USA 23.2%, Japan 0.7%, and the Netherlands 16.4%; post-secondary level up to bachelor's degree: USA 61.4%, Japan 95%, and the Netherlands 75.4%; and master's degree or higher: USA 14.5%, Japan 4.3%, and the Netherlands 8.2%. Income was divided into 9 categories for the Netherlands (from "€30,000 or less" to "€100,000 or more"), 10 categories for Japan ("less than ¥3,000,000" to "¥11,000,001 or more") and 11 categories for USA ("less than \$15,000" to "\$1 million or more"). In the USA 4.2% of respondents preferred not to report their income, in Japan 9.2% and in the Netherlands, 15.4%. The median incomes were in the following categories: USA \$50,000–74,999, Japan \$36,901–44,275 ( $\approx$  ¥5,000,001–6,000,000), and the Netherlands \$32,064–42,744 ( $\approx$  €30,000–39,999).

No approval was required for this study, as the participants had given their prior consent to the research agency to participate in the study and to use their data for research purposes. The anonymity of the participants was also guaranteed. The participants completed a short questionnaire in their native language in which their achievement goals, flourishing and demographical variables were measured. Translation of the original questionnaires was done by an ISO accredited company in a 4-step process: Step 1: translation by a specialized native speaker of the target language; Step 2: proofreading by a second specialized native speaker of the target language; Step 3: in-depth quality assurance check by a third linguist; and Step 4: final approval by the manager of the research agency; a trained linguist.

### 2.2 Measures

#### 2.2.1 Achievement Goals

We used the achievement goal scale developed by Baranik and colleagues (2007) measuring four different achievement goals with four items each: 1) mastery-approach goals, for example, "I enjoy challenging and difficult tasks in which I'll learn new skills"; 2) mastery-avoidance goals, for example, "I just hope I am able to maintain enough skills so I'm competent"; 3) performance-approach goals, for example, "I enjoy it when others are aware of how well I am doing"; and 4) performance-avoidance goals, for example, "Avoiding a display of low ability is more important to me than learning a new skill". Items were scored on a 7-point scale, ranging from 1=strongly disagree to 5=strongly agree. Following the guidelines of Flora (2020), we report omegas rather than Cronbach's alpha. The omegas range from .79 for mastery-avoidance (Japan) to .94 for mastery-approach (USA).

## 2.2.2 Flourishing

Flourishing was measured using the Mental Health Continuum Short Form (MHC-SF; Keyes, 2009) demonstrating good psychometric qualities within various cultural contexts, including the USA (Keyes, 2009), Japan (Hori et al., 2019), and the Netherlands (Lamers et al., 2011; Luijten et al., 2019).

Each item of the MHC-SF represents a sense of well-being, the frequency of which is assessed over the last month (0=never to 5=every day). Hedonic or emotional well-being (3 items) measures positive affect and life satisfaction. An example question is: "In the past month, how often did you feel happy?". Social well-being (5 items) measures social contribution, social integration, social actualization, social acceptance, and social cohesion. An example question is: "How many times in the past month have you found that our society is becoming a better place for people? (social actualization). Psychological well-being (6 items) measures self-acceptance, control over the environment, positive relationships with others, personal growth, autonomy, and a goal in life. An example question is: "Over the past month, how often did you feel confident in thinking and expressing your own ideas and opinions?" (autonomy).

Although research supported a three-factor structure (i.e., emotional, psychological, and social) of the MHC-SF almost all researchers aggregate the 14 items into an overall general well-being score because of the relative high correlations between the scales (e.g., Lamers et al., 2011). In addition, de Bruin and du Plessis (2015) demonstrated that a bifactor solution for the MHC-SF fitted the best with a strong general well-being factor and three weak residual factors. As a result, they recommended focusing on the total score of the MHC-SF to prevent collinearity. Considering these recommendations, we opted for a one-factor solution for the analyses of the hypotheses. Omegas range for flourishing from 0.93 (Netherlands) to 0.95 (USA & Japan).

## 2.3 Statistical Analysis

Relationships between variables can only be meaningfully compared across cultures, when the measurement is equivalent and therefore one should first establish measurement invariance (Davidov et al., 2014). Under the condition of metric invariance, difference scores (i.e., mean-corrected scores such as unstandardized regression coefficients and covariances) across populations can be compared (Steenkamp & Baumgartner, 1998). For the purpose of this study, namely comparing relationships between cultures, metric invariance is sufficient.

### 2.3.1 Measurement Invariance

To examine the measurement invariance first the goodness of fit of the scales, achievement goals (4 factors) and flourishing (3 factors), among the three different countries was tested. In line with Joshanloo et al. (2013) we fitted a three-factor model for flourishing. A one factor model will, given the number of items on a single factor, lead to poor fit indices. If the three-factor structure is invariant in the three different countries, this substantiates the use of the scale, especially because the reliability in the different countries is more than adequate.

The analyses were performed with Mplus 8 (Muthén & Muthén, 2017). As the assumption of the multivariate normality in our data (on item level) was violated (see Wang &

Wang, 2020) the robust maximum likelihood estimator (MLR) was used as estimator. The fit indices of the single group confirmatory factor analysis (CFA) showed an acceptable fit for each country (Table 2). With an exception for flourishing in the Netherlands, which showed a CFI<0.90, however, the psychometric qualities of this scale have been well established for the Dutch version (e.g., Lamers et al., 2011). Hence, we decided to use the results of this scale in this study.

Subsequently, a series of increasingly restrictive measurement invariance tests was performed: configural, metric, and scalar invariance (full and partial; e.g., Cheung & Rensvold, 2002). When the more constrained model showed comparable fit, as indicated by a  $\Delta$ CFI  $-0.01$  and smaller, the measurement invariance of a model could be accepted (Vandenberg & Lance, 2000). The results are presented in Table 3.

### 2.3.2 Partial Scalar Invariance

To test scalar invariance (M3 in Table 3), equality constraints were imposed on all item intercepts. The  $\Delta$ CFI was  $>0.01$  (see Table 3), indicating that scalar invariance had to be rejected for both achievement goals and flourishing. Inspection of the modification indices suggested that freeing the constraints of several items would improve the fit of the model. For the achievement goals scale, the following item intercepts were freed: USA (Mav3, Pav2), and for Japan (Map4, Mav2 & 3). For the flourishing scale, the following item intercepts were freed: USA (mhc4, 8 & 13) and the Netherlands (mhc3, 10 & 12). As shown in Table 4 (M4), this resulted in  $\Delta$ CFI $<0.01$  which supports partial scalar invariance for both the achievement goals and flourishing scale. When partial scalar invariance is established only unstandardized regression coefficients should be used, as suggested by Steenkamp and Baumgartner (1998), and will therefore be the only ones reported.

### 2.3.3 Moderation Analysis

To test the hypotheses a moderation analysis was used with country as a multi-categorical moderator. This analysis allows us to compare the relationships between the different achievement goals and flourishing among the three different countries by studying the conditional effects. To control for the influence of demographical variables gender, age, educa-

**Table 2** Single-group confirmatory factor analyses (CFA) for achievement goals and flourishing

|                          | $\chi^2$ | Scale corr. | df | <i>p</i> | CFI   | SRMR  | RMSEA | 90% CI for RMSEA |       |
|--------------------------|----------|-------------|----|----------|-------|-------|-------|------------------|-------|
|                          |          |             |    |          |       |       |       | LL               | UL    |
| <i>Achievement goals</i> |          |             |    |          |       |       |       |                  |       |
| United States            | 258.895  | 1.30        | 98 | 0.00     | 0.931 | 0.064 | 0.073 | 0.062            | 0.084 |
| Japan                    | 242.661  | 1.61        | 98 | 0.00     | 0.933 | 0.062 | 0.070 | 0.059            | 0.081 |
| Netherlands              | 255.761  | 1.36        | 98 | 0.00     | 0.932 | 0.049 | 0.073 | 0.062            | 0.084 |
| <i>Flourishing</i>       |          |             |    |          |       |       |       |                  |       |
| United States            | 208.752  | 1.49        | 74 | 0.00     | 0.936 | 0.051 | 0.073 | 0.064            | 0.089 |
| Japan                    | 238.832  | 1.43        | 74 | 0.00     | 0.927 | 0.044 | 0.086 | 0.074            | 0.098 |
| Netherlands              | 306.583  | 1.29        | 74 | 0.00     | 0.886 | 0.063 | 0.102 | 0.090            | 0.113 |

Note. Scale corr. = Scaling Correction Factor for MLR; CFI=comparative fit index; SRMR=standardized root mean squared residual; RMSEA=root mean square error of approximation; CI=confidence interval; LL=lower limit; UL=upper limit

**Table 3** Testing for measurement invariance of achievement goals and flourishing

|   | $\chi^2$          | df  | CFI   | SRMR  | RMSEA | Model comparison | $\Delta$ CFI |
|---|-------------------|-----|-------|-------|-------|------------------|--------------|
| <i>Achievement goals (four factors)</i> |                   |     |       |       |       |                  |              |
| M1. Configural invariance               | 755.308<br>(1.43) | 294 | 0.933 | 0.059 | 0.072 | -                | -            |
| M2. Full metric invariance              | 825.840<br>(1.40) | 318 | 0.926 | 0.070 | 0.072 | M2 - M1          | 0.007        |
| M3. Full scalar invariance              | 1016.799 (1.37)   | 342 | 0.901 | 0.080 | 0.080 | M3 - M2          | 0.025        |
| M4. Partial scalar invariance           | 884.766<br>(1.39) | 332 | 0.919 | 0.068 | 0.074 | M4 - M2          | 0.007        |
| M5. Full uniqueness invariance          | 1351.695 (1.43)   | 382 | 0.858 | 0.133 | 0.091 | M5 - M4          | 0.052        |
| <i>Flourishing (three factors)</i>      |                   |     |       |       |       |                  |              |
| M1. Configural invariance               | 746.839<br>(1.40) | 222 | 0.918 | 0.053 | 0.088 | -                | -            |
| M2. Full metric invariance              | 821.268<br>(1.37) | 244 | 0.910 | 0.066 | 0.088 | M2 - M1          | 0.008        |
| M3. Full scalar invariance              | 1052.607 (1.34)   | 266 | 0.877 | 0.082 | 0.098 | M3 - M2          | 0.033        |
| M4. Partial scalar invariance           | 878.739<br>(1.35) | 254 | 0.902 | 0.068 | 0.090 | M4 - M2          | 0.008        |
| M5. Full uniqueness invariance          | 1418.894 (1.38)   | 301 | 0.825 | 0.187 | 0.110 | M5 - M4          | 0.077        |

Note. Scaling correction factor for MLR between brackets; CFI=comparative fit index; SRMR=standardized root mean squared residual

RMSEA=root mean square error of approximation

**Table 4** Means and standard deviations for the three countries

|       | N   | Age           | % Female | Map         | Mav         | Pap         | Pav         | FS          |
|-------|-----|---------------|----------|-------------|-------------|-------------|-------------|-------------|
| USA   | 310 | 43.73 (14.29) | 50.65    | 5.43 (1.43) | 5.08 (1.24) | 4.80 (1.58) | 4.16 (1.57) | 3.22 (1.10) |
| JP    | 304 | 47.88 (14.90) | 50.33    | 4.46 (1.37) | 4.38 (1.06) | 3.72 (1.39) | 3.96 (1.20) | 1.84 (1.01) |
| NL    | 305 | 45.64 (15.02) | 50.16    | 4.81 (1.18) | 4.58 (1.08) | 4.00 (1.33) | 3.60 (1.34) | 2.81 (0.99) |
| Total | 919 | 45.73 (14.82) | 50.38    | 4.90 (1.39) | 4.68 (1.17) | 4.18 (1.51) | 3.91 (1.40) | 2.63 (1.18) |

Note. USA=United States, JP=Japan, NL=Netherlands. For achievement goals scale ranges from 1–7; for flourishing scale ranges from 0–5; Map=Mastery-approach, Mav=Mastery-avoidance, Pap=Performance-approach, Pav=Performance-avoidance goals. FS=Flourishing

tion, employment, and income were used as control variables in the moderation analyses (see Table 4 for the descriptives of all variables). All four achievement goals were used in each moderation analysis, one as predictor (mean-centered) and the remaining three were entered, together with the control variables, as covariates. For the bootstrap confidence intervals of 95% – which will be reported between square brackets – 5000 bootstraps were used.

The moderation analyses were performed with PROCESS 4.1, by using dummy variables: W1 and W2; the USA (W1=0, W2=1), Japan (W1=1, W2=0), and the Netherlands (W1=0, W2=0). Preliminary analyses showed that (on scale level) the assumptions of normality, linearity, multicollinearity, and homoscedasticity were not violated. Only income had missing values because some respondents chose not to answer this question. The missing data in our dataset were examined for patterns using Little’s MCAR test (1988), which

was found to be non-significant. As a result, we applied listwise deletion as our method for handling missing data.

### 3 Results

Before testing the hypotheses, we conducted a hierarchical multiple regression to assess the explained variance in flourishing. Gender, age, education, employment, and income were entered at Step 1 explaining 5% of the variance in flourishing for the USA, 8% for Japan, and 6% for the Netherlands. After entering the four achievement goals in Step 2 the total variance explained by the regression model was for the USA 14%,  $F(4,305)=12.26$ ,  $p<.001$ , Japan 19%,  $F(4,299)=17.47$ ,  $p<.001$ , and the Netherlands 11%,  $F(4,300)=9.19$ ,  $p<.001$ .

#### 3.1 Hypotheses Testing

In line with Hypothesis 1a, 1b, and 1c, a positive relationship was found between mastery-approach goals and flourishing for the three countries: USA ( $b_{US} = 0.18 [0.09, 0.27]$ ,  $p=.00$ ), Japan ( $b_{JP} = 0.20 [0.11, 0.30]$ ,  $p=.00$ ), and Netherlands ( $b_{NL} = 0.13 [0.03, 0.23]$ ,  $p=.01$ ). In addition, the differences between the slopes were not significant (see Fig. 2).

In line with Hypothesis 2b, a positive relationship was found between performance-approach goals and flourishing for Japan, ( $b_{JP} = 0.17 [0.08, 0.26]$ ,  $p=.00$ ). Contrary to Hypothesis 2a and 2c, a positive relationship between performance-approach goals and flourishing was found for the USA, ( $b_{US} = 0.14 [0.05, 0.22]$ ,  $p=.00$ ), and a non-significant relationship for the Netherlands, ( $b_{NL} = 0.04 [-0.06, 0.13]$ ,  $p=.45$ ) (see Fig. 3). In addition, the difference of the slopes between Japan and the Netherlands was significant and between the USA and the Netherlands was marginally significant.

In line with Hypothesis 3c, a negative relationship was found between performance-avoidance goals and flourishing for the Netherlands, ( $b_{NL} = -0.19 [-0.28, -0.10]$ ,  $p=.00$ ). Contrary to Hypothesis 3a and 3b, a non-significant relationship between performance-avoidance goals and flourishing was found for the USA, ( $b_{US} = -0.07 [-0.14, 0.01]$ ,  $p=.097$ ) and a negative relationship for Japan ( $b_{JP} = -0.10 [-0.20, -0.00]$ ,  $p=.048$ ) (see Fig. 4). In addition, only the difference between the slopes of the USA and the Netherlands was significant and between the Netherlands and Japan marginally significant.

Finally in line with Hypothesis 4c, mastery-avoidance goals were not significantly related to flourishing in the Netherlands, ( $b_{NL} = 0.02 [-0.09, 0.13]$ ,  $p=.74$ ). Contrary to Hypotheses 4a and 4b, mastery-avoidance goals were positively related to flourishing in the USA, ( $b_{US} = 0.12 [0.02, 0.22]$ ,  $p=.02$ ) and not significantly related to flourishing in Japan ( $b_{JP} = 0.08 [-0.04, 0.20]$ ,  $p=.22$ ) (see Fig. 5). In addition, there were no significant differences between the slopes. The results are summarized in Table 5.

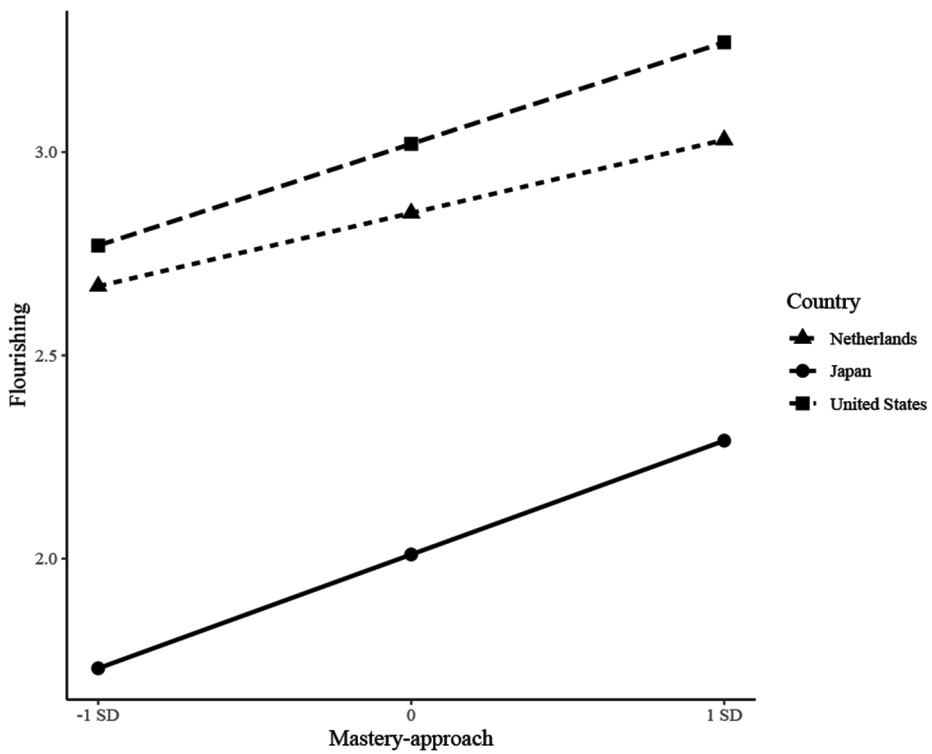
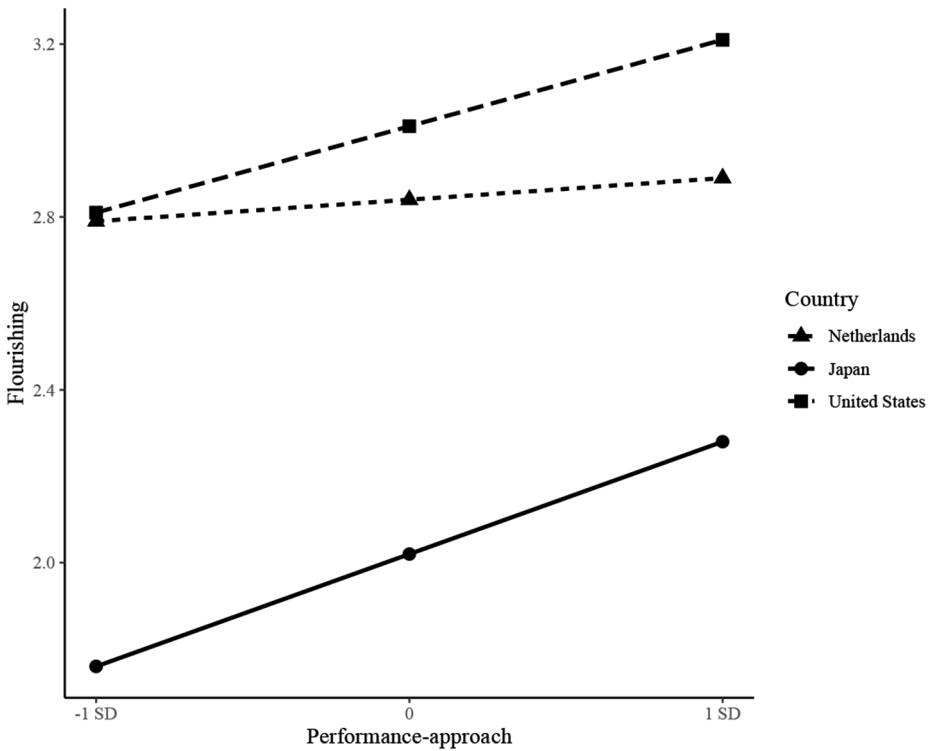


Fig. 2 Effect of country on the relationship between mastery-approach goals and flourishing

## 4 Discussion

This study tested the relationships between achievement goals (mastery-approach, performance-approach, performance-avoidance, and mastery-avoidance goals) and well-being (conceptualized as flourishing, i.e. emotional, social, and psychological well-being) in an adult population and how these relationships might differ between cultures. In line with findings from previous research (e.g., Joshanloo et al., 2013; Murayama et al., 2011), our study found evidence for the four-factor structure of achievement goals and the three-factor structure of flourishing in three countries under study (USA, Japan, and the Netherlands). Moreover, achievement goals could uniquely explain variance in well-being over and above demographic variables: USA 9% (total variance explained 14%), Japan 11% (total variance explained 19%), and the Netherlands 5% (total variance explained 11%).

As expected, and in line with previous research (Guo et al., 2022), mastery-approach goals (i.e., a focus on developing competence) were positively related to well-being in all three countries. These results indicate that, although cultures might have different cultural values (Hofstede, 2011) a focus on developing competence and mastering something new seems beneficial for well-being in a variety of cultures. A possible explanation is that mastery-approach goals serve to the fulfillment of the universal need for competence and as demonstrated by the Self Determination Theory striving to improve competencies universally contributes to well-being (Elliot et al., 2000; Muthén et al., 2020; Ryan et al., 2022).



**Fig. 3** Effect of country on the relationship between performance-approach goals and flourishing

In contrast to the Netherlands, in which no relationship was found between performance-approach goals (i.e., a focus on showing one's competence relative to others) and well-being, performance-approach goals were positively related to well-being in both Japan and the USA. This finding is in line with the person-culture match hypothesis (Fulmer et al., 2010) indicating that a match between the prevalent motivational orientation of other people in one's environment (i.e., Japan with a high score on competitiveness) and a person's own motivational orientation (i.e., performance-approach goals) has a positive effect on someone's well-being. And even when the prevalent motivational orientation might be less strong but still present (i.e. USA with a moderate score on competitiveness), performance-approach goals display a positive effect on well-being. In other words, performance-approach goals seem not to be a bad thing in a competitive culture.

For performance-avoidance goals, we found no relationship (i.e., USA) or a negative relationship (i.e., Japan and the Netherlands) with well-being but caution should be taken to draw firm practical conclusions because the result for Japan was on the borderline of significance. However, even when we assume that there is no significant relationship between performance-avoidance goals and well-being in Japan the results for Japan and the USA are in contrast to previous work demonstrating that performance-avoidance goals are less maladaptive in collectivistic countries compared to more individualistic countries (e.g., Datu & Park, 2019; Elliot et al., 2001; Huang, 2011; King, 2016). The studies by Datu and Park, and King are done in a country with high scores on collectivism compared to Japan (i.e.,

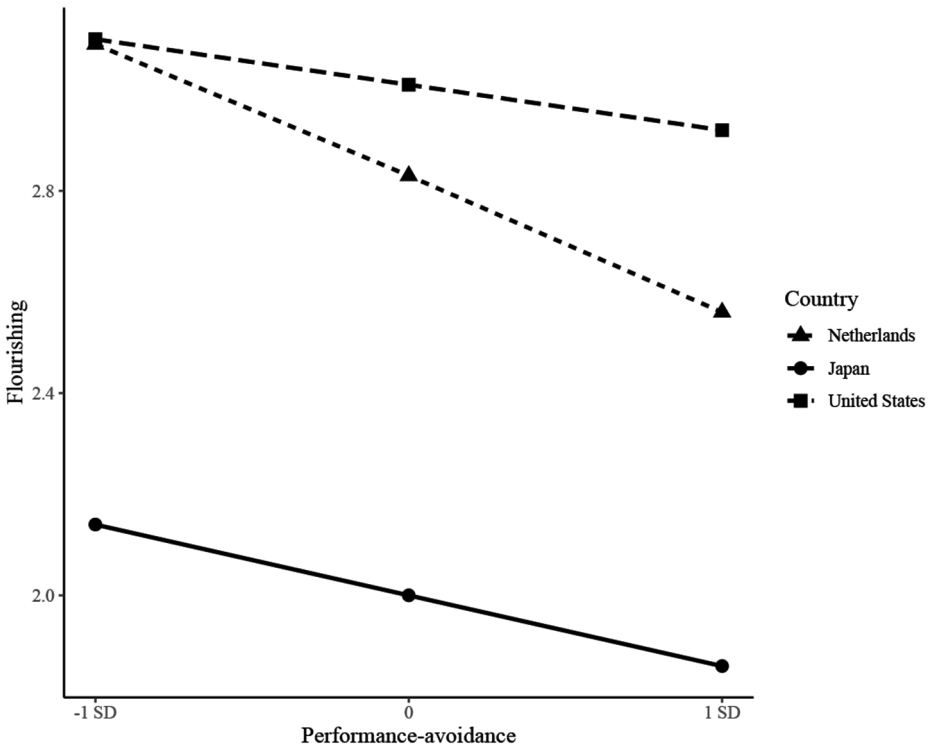


Fig. 4 Effect of country on the relationship between performance-avoidance goals and flourishing

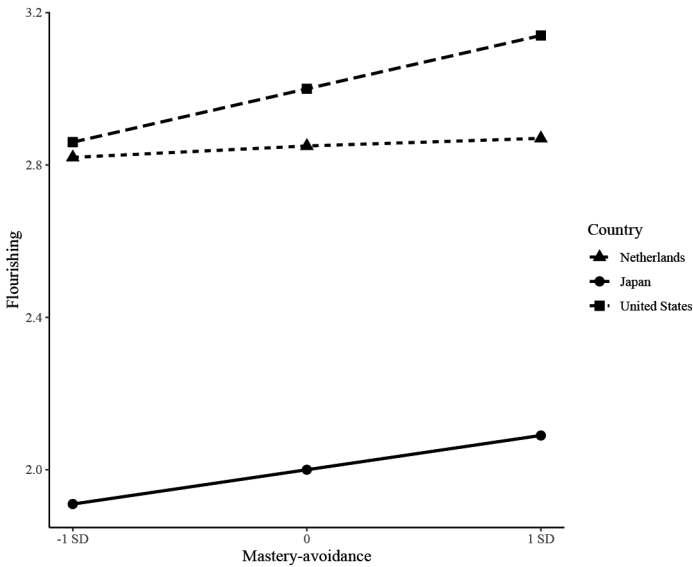


Fig. 5 Effect of country on the relationship between mastery-avoidance goals and flourishing



**Table 5** Summary of results of the relationship between achievement goals and flourishing

|           | Mastery |      | Performance |      |
|-----------|---------|------|-------------|------|
| Approach  | USA     | +    | USA         | +    |
|           | JP      | +    | JP          | +    |
|           | NL      | +    | NL          | n.s. |
| Avoidance | USA     | +    | USA         | n.s. |
|           | JP      | n.s. | JP          | -    |
|           | NL      | n.s. | NL          | -    |

Note: USA = United States, JP = Japan, NL = Netherlands

Philippines) providing an indication that the cultural value of collectivism might play a role in the relationship between performance-avoidance goals and well-being. This idea is supported by Oyserman et al., (2002), finding differences in the level of individualism but not in collectivism between Western countries and Japan. Finally, the cultural value of uncertainty avoidance - very prominent in Japan- seems not relevant in the relationship between performance-avoidance goals and well-being.

In line with expectations, mastery-avoidance goals focusing on preventing incompetence were not associated with well-being in the Netherlands and although a positive relationship was expected also not associated with well-being in Japan. The most unexpected finding was the positive relationship between mastery-avoidance goals and well-being in the USA. It is hard to find a reason for this result, but in the same way as with the relationship between performance-avoidance goals and well-being in Japan, the borderline significance of the result does not allow to draw strong conclusions.

By looking at the different results, a pattern emerges indicating that the relationship between achievement goals and well-being might be different between cultures (i.e., the USA, Japan, and the Netherlands) especially for performance-approach and performance-avoidance, but not for mastery-approach goals. Achievement goals with an intrapersonal frame of reference, motivated by learning, task accomplishment and improving competences display the same effect on well-being in a variety of cultures. This agreement indicates that mastery goals display a universal effect on well-being: positive for mastery-approach goals and no - or slightly positive- effect for mastery avoidance goals.

Achievement goals with an interpersonal frame of reference, motivated by fear of failure and showing competence (either showing one's competence relative to others or preventing showing incompetence relative to others) have a different relationship with well-being and it seems that cultural values of a country (Hofstede, 2011) might play a role in these differences. Of those values, not only the value mostly used to explain certain outcomes in cross-culture research: the level of individualism vs. collectivism in a country but also the level of competence in a country seem to play a role in the association between the achievement goals individuals want to pursue and their well-being.

## 5 Limitations and Future Research

This study compared three countries (USA, Japan, and the Netherlands), different in their level of individualism (from very high to moderate), competitiveness (from very high to very low), and uncertainty avoidance (from very high to moderate) but did not include a country very low on individualism (e.g., China or the Philippines). This decision was based on the fact that certain factors related to well-being (e.g., health, education, political system)

would likely display a major influence on the results. The three countries included in this study were comparable in respect to educational system, health care (<https://worldpopulationreview.com/country-rankings>), the political system and the amount of freedom (see Veenhoven, 2000). It would be interesting if future research could include a wider variety of countries with different levels of individualism to validate the results from the current study.

The samples used in this study were representative in age and gender but were not matched on income, or educational and employment level. Comparing the distribution for those characteristics with the wider population of the countries under investigation provides an indication that the samples could be considered as representative on educational and employment level (e.g., <https://tradingeconomics.com/country-list/employment-rate>). For income, the samples of the USA and the Netherlands were representative for the population but the average income in Japan is slightly lower compared to the income of the sample used for this study (<https://www.oecd.org/social/income-distribution-database.htm>).

Another limitation might be that we have used a general measure of achievement goals. Previous studies (e.g., Baranik et al., 2010; Vandewalle et al., 2001) have demonstrated a stronger magnitude of the relationship between achievement goals and certain outcomes when using specific items (e.g., in the work or academic domain or for a specific situation) compared to more general measures. However, “criterion-related validity is maximized by matching the predictor and criterion variables by level of specificity (narrow/specific vs. broad/general)” (Baranik et al., 2010, p. 158). So, in our study we have coupled the broad construct of well-being with the general measure of achievement goals.

A related limitation is that we did not measure achievement goals based on the different defining components of performance and mastery goals (see for example, Daumiller et al., 2019; Elliot et al., 2011; Hulleman et al., 2010; Senko & Dawson, 2017). Performance can be defined either as demonstration of competence to others (appearance) or as social comparison (normative) and mastery as either striving to master a task (task-referenced) or development of competences (self-referenced). There is some support for the separation of both mastery and performance goals, but the usefulness and applicability of this separation is still under discussion (e.g., Elliot et al., 2011). We, therefore, relied on the traditional conceptualization of achievement goals by using Elliot and McGregor’s (2001) 2×2 framework. Further research could investigate and extend this somewhat new conceptualization of achievement goals and see if the different components of mastery and performance goals could be detrimental or beneficial for well-being in different cultures.

Cross-cultural comparison of subjective Likert scales might be prone to confounding cross-cultural comparisons because people from different cultures compare themselves to different reference groups; the reference-group effect (Heine et al., 2002). It is difficult to see whether this has had an effect in the current study, but future studies should consider the suggestions put forward by Heine and colleagues in order to prevent the reference-group effect.

The final and maybe most important limitation is that the interpretation and appraisal of achievement goals and well-being might differ across cultures (see Oishi & Diener, 2009; Zusho & Clayton, 2011). The achievement goal theory could be characterized as an absolutist and not as a universalist theory because it is developed in a Western culture with middle and high class, white students from the 1980s on and only at a later stage tested for its psychometric proportions in other cultures while still using high class students (e.g., Murayama et al., 2009). The substantial amount of research on well-being provides an indication that

these concepts are universal but that there might be differences in the value of well-being across cultures (see for an overview Diener & Suh, 2000). For example, pursuing happiness is less important for people from East-Asia (Heine et al., 2001). So, although we have established the invariance of the factor structure of achievement goals and flourishing between the three countries, for future research it is important to have a closer look at whether the items have the same meaning in different cultures.

## 6 Conclusion

Based on the results of this study, we can draw some conclusions. Mastery-approach goals are valuable across countries and in line with the universal need for competence and as such might be a promising avenue in the promotion of well-being for all (see United Nations, 2015). The different cultural values of a country could provide a tentative explanation for the differences in the relationship between performance-approach and performance avoidance goals and well-being. In sum, the 2×2 model of achievement goals appears to be relevant in their relationship with well-being of all people across cultures whereby mastery-approach goals appear as more context independent while performance (approach and avoidance) goals appear as more context dependent. These findings provide some insight on which achievement goals should be emphasized in cross-cultural coaching and training practices across sports, work, and education to best promote well-being.

## Declarations

**Conflict of Interest** Authors declare that they have no conflict of interest.

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