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An initial study on the role of playfulness in vocational interests and career choices

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ABSTRACT

Adult playfulness describes individual differences in (re)framing situations as entertaining, intellectually stimulating, or personally interesting. Previous research has linked playfulness to workplace creativity and satisfaction, but its role in vocational interests and career choices remains underexplored. In two studies, we investigated how playfulness relates to vocational interests and career choices, offering insights into person-environment fit and implications for career counseling. In Study 1, 219 participants reported on three playfulness indicators (questionnaire, number of playful acts and ideas, context-specific playfulness) and their vocational interests using the RIASEC model. Playful individuals were especially interested in enterprising and artistic work activities. Latent profile analysis indicated three interest profiles, each associated with distinct playfulness expressions. In Study 2, two samples comprising 2731 students and 2286 professionals completed a multidimensional playfulness questionnaire and reported their study majors or occupations, which we categorized into RIASEC types. MANOVA indicated small mean differences in playfulness facets across occupational groups but larger differences for specific study majors and professions. Our findings highlight the importance of considering playfulness in vocational and organizational settings. We discuss the role of playfulness in vocational contexts and implications for future research (e.g., addressing interests-profession incongruities) and practical applications (e.g., career counseling).

1. Introduction

"*When you play, play hard; when you work, don't play at all*" (Roosevelt, 2015).

Researchers have increasingly explored the role of play and playfulness in work contexts, identifying a range of potential benefits for individuals and organizations (e.g., Celestine & Yeo, 2021; Petelczyc et al., 2018; Proyer & Sendatzki, in press). Playfulness is a personality trait characterized by the ability to (re)frame situations as entertaining, intellectually stimulating, or personally interesting (Proyer, 2017). Higher playfulness goes along with enhanced creativity, better stress management, and greater job satisfaction to name but a few (e.g., Tandler et al., 2024; West et al., 2017; Yu et al., 2007). These findings suggest that playful individuals may engage with their environments in adaptive ways, particularly when navigating novel, uncertain, and/or demanding work contexts.

The role of playfulness in vocational psychology remains largely understudied, despite long-standing interest in linking personality traits to vocational outcomes (e.g., Barrick et al., 2003; Holland, 1997). While research has frequently studied broad traits—most notably the Big Five—earlier work has highlighted the potential of more specific, narrower traits for understanding how individuals approach work and make career decisions (e.g., Ashton, 1998; Barrick et al., 2003). We propose that playfulness is one such relevant trait that, despite its links to motivational and behavioral tendencies like curiosity, enjoyment of complexity, and intrinsic motivation (e.g., Proyer, 2012, 2014; Scharp et al., 2023), has received comparatively little attention in vocational psychology.

The present research aimed to conceptually expand the nomological network of playfulness by examining its role in vocational interests and occupational choices. While available research on playfulness in the workplace has focused on how employees use playfulness as a resource, e.g., through playful work design, a playful form of job crafting (Bakker & van Woerkom, 2017; Scharp et al., 2019, 2023), little is known about the role of playfulness in early career stages. Understanding these associations could offer both theoretical and practical value.

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Theoretically, our studies help clarify the role of playfulness as a relevant individual difference variable in the domain of vocation. By examining how playfulness aligns with certain vocational themes and professions, our work contributes to understanding how it may be linked to the environments people are drawn to in the first place. From an applied perspective it might be argued that the malleability of playfulness (Proyer et al., 2021) and knowledge about its vocational relevance may inform trainings aimed at fostering exploratory behavior, improving person-environment fit (e.g., through playful work design), or guiding recruitment and job design strategies (Kristof-Brown et al., 2005).

While the link between personality traits and vocational interests is well established, the contribution of playfulness is hitherto understudied. Our study addresses this gap in the literature by investigating associations between playfulness and vocational interests from the perspective of self-reports (Study 1), as well as differences in playfulness when study majors and professions are externally coded regarding domains of vocational interests (Study 2). Our findings extend the knowledge of the field by embedding playfulness in the nomological network of one of the most frequently used models in vocational psychology (i.e., RIASEC; Holland, 1997) and identifying potential avenues for future research and practical application.

1.1. Adult playfulness

Although trait playfulness has traditionally been studied primarily in children, recent decades have seen increasing interest in investigating playfulness in adults. Research has highlighted its relevance across various domains, including romantic relationships (Brauer, Proyer, & Chick, 2021), the workplace (Petelczyc et al., 2018; Proyer & Sendatzki, in press), well-being (e.g., Farley et al., 2021), and stress coping (e.g., Tandler et al., 2024). However, reaching a consensus on the definition and measurement of adult playfulness has been difficult, as many theoretical models and assessment tools tend to conflate it with related constructs such as humor, curiosity, or creativity (see Proyer & Brauer, 2023, for a discussion).

To address these issues, Proyer (2017) adopted a multimethodological approach to develop the OLIW model, which defines playfulness as "an individual differences variable that allows people to frame or reframe everyday situations in a way such that they experience them as entertaining, and/or intellectually stimulating, and/or personally interesting" (p. 114). The OLIW model comprises four facets: *Other-directed* (e.g., playfully interacting with others, using one's playfulness to cheer others up), *Lighthearted* (e.g., liking improvisation, not worrying much about the consequences of one's own behavior), *Intellectual* (e.g., liking to play with ideas and thoughts, liking to think about and try to solve problems), and *Whimsical* playfulness (e.g., fascination for odd and unusual things, people, and situations). Since its introduction, the OLIW model has been widely used for assessing fine-grained aspects of adult playfulness, with numerous studies providing findings on its relevance in everyday life (e.g., Brauer, Proyer, & Chick, 2021; Farley et al., 2021; Tandler et al., 2024).

Playfulness serves multiple functions beyond mere enjoyment and leisure. For example, Proyer (2014) found that 71 % of participants identified meaningful uses of playfulness at work, including humor and laughter, coping with challenging situations, relationship building, promoting creativity, and enhancing well-being. Despite growing interest in playfulness in work contexts (see Petelczyc et al., 2018, for an overview), little is currently known about how playfulness relates to vocational interests and career choices. Understanding these links could inform discussions on person-job fit and identify career paths where playful traits may be especially advantageous.

1.2. Present studies

In two studies, we address two key research questions: 1) *In which work activities are individuals high in playfulness particularly interested?* and 2) *In which professions are they particularly represented?* Study 1 is an initial investigation into how playfulness relates to vocational interests, using three indicators of playfulness to identify preferred work activities. Study 2 extends these findings by examining differences in playfulness in academic majors and occupations, using a multidimensional measure of playfulness and large samples of students and professionals. Together, these studies contribute to the knowledge of the field by embedding playfulness within the nomological network of vocational psychology and highlighting its alignment with specific professional environments. From an applied perspective, they suggest that accounting for playfulness could support career guidance and recruitment strategies by identifying roles where playful traits align with job demands—potentially supporting person-environment fit and enhancing satisfaction and engagement (e.g., Kristof-Brown et al., 2005).

1.2.1. Playfulness and vocational interests

In Study 1, we explored how playfulness relates to vocational interests. The latter are stable preferences for specific work tasks and environments, predicting outcomes such as job knowledge, performance, and retention (e.g., Van Iddekinge et al., 2011). Holland's (1997) RIASEC model organizes vocational interests into six domains: *Realistic*, *Investigative*, *Artistic*, *Social*, *Enterprising*, and *Conventional* (RIASEC). An individual's interest profile can be classified as one or a combination of these types, typically based on their three most dominant interests, as outlined in the RIASEC model. Holland's theory posits that individuals seek work environments aligning with their interests, allowing them to express their personality and competencies. This person-environment fit predicts important outcomes, including job satisfaction, performance, and stress (e.g., Su et al., 2015).

Since personality traits relate to vocational interests (e.g., Barrick et al., 2003), we hypothesized that playfulness would align with certain interest domains. Characteristics of playfulness—such as spontaneity, openness to novel experiences, and unconventional and creative thinking—naturally fit dynamic and expressive interests. We expected positive relationships between playfulness and Artistic, Enterprising, Social, and Investigative interests, and a negative relationship with Conventional interests. Artistic interests, involving creativity, self-expression, and unconventional approaches (Holland, 1997), align with imaginative, expressive, and unconventional aspects of playfulness (Proyer et al., 2019; Proyer & Jehle, 2013). Conversely, Conventional interests emphasize order, accuracy, and clear instructions (Holland, 1997), which opposes the sometimes impulsive and rule-averse tendencies of certain types of playfulness (Proyer, 2017).

Enterprising interests, characterized by energy, sociability, and adventurousness (Holland, 1997), align with playful facets like more dynamic and expressive types of playfulness (Barnett, 2007; Proyer & Jehle, 2013). Matching enterprising work activities, playfulness is associated with unconventional solutions, playful argumentation (Proyer, 2017; Proyer & Jehle, 2013), innovation (e.g., Yu et al., 2007), and flexible sales strategies (Maxwell et al., 2005). Playfulness also supports social interactions (Brauer, Proyer, & Chick, 2021), suggesting a positive relationship to Social interests, which emphasize helping, teaching, and collaborating (Holland, 1997). Prior research also supports this connection, with Siess and Jackson (1970) finding a positive association between the need for play and social interests. Lastly, the intellectual facet of playfulness (i.e., enjoying problem-solving and innovative thinking; Proyer, 2017) could align with Investigative interests, which involve observation and systematic inquiry (Holland, 1997).

1.2.2. Playfulness in relation to study majors and professions

According to Holland's (1997) theory of person-environment fit, individuals thrive in occupations that align with their personality traits and skills (see also Kristof-Brown et al., 2005). A closer match between

traits and job demands allows individuals to express themselves more authentically at work. Previous studies have examined this by studying variations in personality traits across study fields, with findings such as higher neuroticism and openness among psychology students compared to other disciplines (Vedel, 2016). However, to our knowledge, differences in playfulness across study majors have not been examined yet. Given that academic choices often shape future professions, exploring how playfulness varies across disciplines may offer insights into its broader vocational significance.

Workplace research on playfulness has primarily focused on specific occupations, such as psychotherapists (Yonatan-Leus et al., 2018), coaches and consultants (West et al., 2013), "Clown Doctors" (Dionigi et al., 2025), or sales representatives (Maxwell et al., 2005). However, research comparing different professions remains scarce. One exception is a study showing that librarians exhibited higher intellectual playfulness and lower other-directed playfulness compared to police officers (Brauer, Scherrer, & Proyer, 2021). This can be seen as an indication that people with different playfulness profiles are attracted to different career choices and/or that certain professions inhibit or foster the application of specific playful traits.

Studying differences in playfulness across professions holds several advantages. Firstly, different jobs have unique task-related demands, such as autonomy, monotony, or creativity, which influences how playfulness can manifest (Petelczyc et al., 2018). A good fit between an individual's playfulness and job characteristics may impact job experience. For instance, employees who enjoy a playful approach to work might thrive in jobs that encourage playfulness (e.g., in jobs with monotonous tasks but high autonomy).

Secondly, the implications of playfulness differ across various professions. While playfulness might be inefficient or undesirable in some situations (e.g., in life-threatening situations), it is beneficial in others (e.g., as a tool for recovery after stressful events; e.g., Dionigi et al., 2025). Different facets of playfulness, such as intellectual or other-directed playfulness, likely have distinct functions depending on the job context. For example, intellectual playfulness might support coping with routine, whereas social playfulness may enhance collaboration and morale in team-based roles (Brauer, Scherrer, & Proyer, 2021).

Finally, understanding these patterns can guide the development of targeted interventions and workplace training (Proyer et al., 2021). Interventions designed to incorporate playful elements into routine tasks might be especially relevant in roles with limited intrinsic variety. Furthermore, these training could prove especially beneficial for employees, where work tasks diverge from their vocational interests. In conclusion, exploring differences in playfulness among professions can enhance person-job fit, deepen our understanding of playfulness's implications at work, and inform the development of effective, playfulness-centered trainings.

2. Study 1

Study 1 provides an initial exploration of the relationship between playfulness and vocational interests. We assessed playfulness through three indicators: (1) a standard self-report questionnaire, (2) self-reports of playful acts and ideas in a typical day, and (3) context-specific playfulness across six contexts such as leisure and work. This approach aimed to reduce common method bias and provide a more comprehensive view of playfulness.

We employed both variable- and person-centered analyses. In addition to testing the associations between playfulness and single interests, we conducted a profile analysis of the full set of RIASEC interests to identify *combinations* of the interests. This approach is based on the notion that combinations of interests—rather than isolated interests—are crucial for career decisions (Leuty et al., 2016; McLarnon et al., 2015; Perera & McIlveen, 2018). Identifying interest profiles allows for a more nuanced understanding of how diverse interest patterns relate to personality traits like playfulness, offering practical insights for both career counseling and organizational job design. Given mixed findings in prior research on the number of underlying profiles of vocational interests (six vs. eight profiles; Perera & McIlveen, 2018; McLarnon et al., 2015), we explored the number of profiles and differences in playfulness, age, and gender across them in an exploratory way without specific hypotheses on the emerging number of profiles.

2.1. Method

2.1.1. Sample

Our sample consisted of 219 participants (75.8 % women, 24.2 % men), including 135 students, 64 employees, 4 in vocational training, 3 unemployed, and 13 preferred not to say. Participants were $M = 25.3$ years old ($SD = 6.2$, [18, 56]) and lived in Germany (72.1 %), Switzerland (15.3 %), Austria (10.7 %), and other countries or undisclosed locations (1.9 %). Most participants had a high school diploma qualifying them to attend university (12–13 years of school; 56.4 %) or a university degree (33.9 %); the remainder had completed 9–10 years of school (1.8 %) or vocational training (7.8 %).

2.1.2. Instruments

2.1.2.1. Playfulness. The 5-item *Short Measure of Adult Playfulness* (SMAP; Proyer, 2012) assesses general playfulness (e.g., "I am a playful person") using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Prior research supported its one-factorial structure, reliability ($\alpha \geq 0.80$; test-retest reliability $r = 0.72$ for 12–16 weeks), and convergent and discriminant validity (e.g., Proyer, 2012). The SMAP is used frequently as a brief measure of playfulness (e.g., Scharp et al., 2023; West et al., 2017).

2.1.2.2. Playful acts and ideas. We asked participants to estimate how often they engage in playful acts and had playful ideas (a) on a typical weekday over the past seven days and (b) on the last Sunday (i.e., a non-working day). We acknowledged the difficulty of providing an exact number by encouraging participants to provide a rough estimate and we provided examples of playful acts and ideas. We provide the introduction in verbatim in the electronic supplementary material (ESM) A.1 (see: https://osf.io/wkexa/ for the ESM).

2.1.2.3. Context-specific playfulness. Participants rated their playfulness in six specific contexts: leisure, work, interactions with colleagues, under stress, romantic relationship, and with close friends, on a 10-point rating scale (1 = *not at all* to 10 = *extremely)*.

2.1.2.4. Vocational interests. The *Allgemeiner Interessen-Struktur-Test Revision* (AIST-R "General Interest-Structure-Test;" Bergmann & Eder, 2018) assesses vocational interests based on Holland's RIASEC model. It is the standard instrument for the assessment of vocational interests in German-speaking countries. The 60 items describe occupational activities, for example, "take care of other people," "carry out experiments in a lab," "work with machines or technical devices." Participants rate each item on a 5-point scale (1 = *I am not interested in this at all, I don't like this* to 5 = *I am very interested in this, I really like this*). Bergmann and Eder (2018) report robust evidence for its reliability and validity (e.g., $\alpha \geq 0.82$, expected correlations with other interest inventories, and discrimination between different professions).

2.1.3. Procedure

We recruited participants through online (e.g., authors' department websites) and on-campus advertising, titled "Study on personality and vocational interests" (inclusion criterion: age $\geq$ 18 years). Participants provided informed consent and we conducted the study in accordance with the Helsinki Declaration and national ethical regulations. There was no financial compensation. On average, participants completed the

survey in 15–20 min.

2.1.4. Data analysis

2.1.4.1. Correlation and regression analyses. We used bivariate correlation and regression analyses to examine the associations between playfulness and the RIASEC dimensions. Based on Gignac and Szodorai (2016), we interpreted *rs* ≥ 0.10, 0.20, and 0.30 as relatively small, medium, and relatively large effect sizes.

We conducted six regression analyses, each with one of the RIASEC domains as the dependent variable. In every model, the nine playfulness indicators served as simultaneous predictors[1] (enter method), controlling for age and gender. We interpreted the variance explained by the playfulness indicators (ΔR^2) and computed Cohen's f^2 (≥ 0.02, 0.15, and 0.35 indicating small, medium, and large effects; Cohen, 1988). We conducted the analyses in SPSS 28.0 using pairwise deletion for missing data.

2.1.4.2. Latent profile analysis. We used LPA to identify subgroups of participants that share a similar response pattern of RIASEC interests. Our first aim was to derive the number of underlying interest profiles (see ESM 1.E for a more detailed description of the analysis). We followed best-practice recommendations (Spurk et al., 2020) and implemented the adjusted Lo-Mendell-Rubin test (aLMR), the bootstrap-likelihood ratio test (BLRT), the entropy, the Bayesian information criterion (BIC), the sample size adjusted BIC (SABIC), and the Akaike information criterion (AIC) to determine the best-fitting model. There are no cut-offs to determine the best model, instead fit indices are compared to identify the best-fitting model. Our second aim was to examine differences in playfulness, age, and gender across vocational interest profiles. We used the Bolck-Croon-Hagenaars (BCH; Bakk & Vermunt, 2016) method with global and pairwise Wald χ^2 tests. We computed the LPA in Mplus 8.8 (Muthén & Muthén, 2017) using the maximum likelihood estimator. All data and syntax are openly available in the Open Science Framework (https://osf.io/wkexa/).

2.2. Results

2.2.1. Preliminary analyses

SMAP and AIST showed good internal consistencies (α and ω ≥ 0.82; electronic supplementary material [ESM] 1.B). Playfulness indicators showed no robust associations with gender (|*d*| ≤ 0.29) and age (|*r*| ≤ 0.12), except that younger participants reported more playfulness in leisure time and with close friends ($r = -0.17$ and -0.28). For the interests, we found the frequently reported gender differences of medium to large effect sizes, with men reporting greater interest in realistic (|*g*| = 0.90) and investigative activities (|*g*| = 0.74), while women reported greater interest in artistic (|*g*| = 0.59) and social activities (|*g*| = 0.74). Associations with age were negligible, except that realistic interests did go along with older age ($r = 0.17$, $p = .012$). We controlled for age and gender in all subsequent analyses. The number of playful acts and ideas ranged from 0 to 180 ($M = 16.5$, $Mdn = 10$, $SD = 22.5$) for a typical weekday and from 0 to 180 ($M = 13.8$, $Mdn = 6$, $SD = 20.7$) for a typical Sunday.[2]

Playfulness indicators inter-correlated as expected (0.23 ≤ *r* ≤ 0.76; ESM 1.C). The RIASEC interests were moderately related (0.06 ≤ *r* ≤ 0.41), except for a strong correlation between realistic and investigative interests ($r = 0.57$; ESM 1.D), consistent with prior studies (e.g., Barrick et al., 2003; Bergmann & Eder, 2018).

2.2.2. Associations between playfulness indicators and vocational interests

The SMAP correlated positively with all interests (*rs* ≥ 0.16, *ps* ≤ 0.018), except for Conventional ($r = 0.03$, $p = .714$; Table 1), with the numerically largest coefficients for Artistic and Enterprising (medium effect sizes). Playful acts and ideas on weekdays and Sundays related to enterprising ($r = 0.25$ and 0.23, $ps < 0.001$), artistic ($r = 0.23$ and 0.28, $ps < 0.001$), and investigative interests ($r = 0.14$ and 0.17, $ps \leq 0.039$). Context-specific playfulness correlated with Enterprising ($0.18 \leq r \leq 0.28$, $ps \leq 0.009$) and higher playfulness under stress with realistic and investigative interests ($r = 0.23$ and 0.20; $ps \leq 0.003$). Overall, playfulness explained 3 % (Conventional interests) to 15 % of variance (Enterprising interests; Table 1) across interest domains. We found medium effect sizes for Artistic and Enterprising ($\beta_{SMAP} = 0.36$ and 0.23, both $f^2 = 0.17$) and small effect sizes for the other interest domains (f^2 between 0.03 and 0.08).

2.2.3. Profiles of vocational interests

We identified three distinct profiles based on combinations of RIASEC interests, following established model selection guidelines (see ESM 1.E and 1.F for a detailed description of model selection steps and model fit indices). We labeled the three profiles: (1) Disinterested (low levels on all RIASEC variables; $n = 27$), (2) People oriented (low expressions in R and I, higher expressions in S and E; $n = 144$), and (3) Practical-Investigative (high levels in R and I; $n = 48$; see ESM 1.G for means).

The Disinterested group showed significantly lower expressions of playfulness than the other two ($\chi^2 \geq 9.85$, $p \leq .002$; $M_1 = 3.91$, $M_2 = 5.04$, and $M_3 = 5.39$). The gender ratio in the Practical-Investigative profile (55 % men) differed from the other two profiles (73 % women in Profile 1 and 87 % women in Profile 2; $p \leq .032$; see ESM 1.G for differences in the profiles and ESM 1.H for a visual representation). There were no differences in age between the profiles. See ESM 1.E for a more detailed results description of the LPA.

Table 1
Partial correlations and shared variance (R^2) for playfulness indicators and vocational interests (both controlled for age and gender) in Study 1.

	Vocational interests						ΔR^2
	R	I	A	S	E	C	
Playfulness							
SMAP	.16*	.20**	.31***	.21**	.34***	.03	.20
Playful acts and ideas							
Typical weekday	.04	.14*	.23***	.04	.25***	.02	.13
Typical Sunday	.10	.17*	.28***	.10	.23***	.06	.12
Context-specific playfulness							
Leisure time	.12	.09	.15*	.07	.25***	.02	.09
Work	.18**	.09	.10	.10	.24***	.08	.09
With colleagues	.09	.08	.10	.06	.25***	.01	.09
Under stress	.23***	.20**	.10	.08	.28***	−.01	.14
With partner	.06	.07	.13	.10	.18**	.04	.04
With friends	.03	.03	.06	.02	.21**	−.03	.06
ΔR^2	.07	.08	.14	.06	.15	.03	

Note. Sample size between 197 and 214. SMAP = Short Measure of Adult Playfulness. R = Realistic. I = Investigative. A = Artistic. S = Social. E = Enterprising. C = Conventional. ΔR^2 = Shared variance between playfulness indicator and RIASEC domains beyond age and gender. Playful acts and ideas have been logarithmized.
*$p < .05$. **$p < .01$. ***$p < .001$.

[1] Since our data are cross-sectional, we use "predict" in a descriptive rather than causal sense.

[2] The number of playful acts and ideas had a high variance and right-skewness (skewness = 3.66 and 4.16; kurtosis = 17.23 and 23.57 for weekday and Sunday, respectively), we used their natural logarithm, resulting in an approximately normal distribution (skewness = 0.14 and 0.20, kurtosis = 0.13 and − 0.22). Other variables showed only minor deviations from normality (absolute skewness ≤1.33 and kurtosis ≤1.64).

2.3. Discussion

Our study provides an initial analysis of the relationship between playfulness indicators and vocational interests using both variable-centered and person-centered approaches. Playfulness showed the strongest association with Enterprising and Artistic interests, aligning with Holland's (1997) RIASEC type descriptions and prior research (Dionigi et al., 2025; Siess & Jackson, 1970). Interestingly, Conventional interests did not relate to any of our playfulness indicators, suggesting a more complex or indirect relationship. Recent research highlights that playfulness, even in older adults, is linked to creativity, curiosity, and love of learning—traits that support adaptability and variety at work (Brauer, Stumpf, & Proyer, 2024). This may explain why playful individuals tend to avoid routine jobs or, when in such roles, find creative ways to approach tasks. This aligns with Scharp et al. (2019), who showed that playful individuals enhance their work engagement and creativity through playful work design. Thus, playfulness may foster adaptability and innovation, even in structured environments.

Our context-specific analysis showed that playfulness varies across life domains (see also, Proyer, 2014). Enterprising interests were positively related to playfulness across diverse contexts, while Realistic interests were tied to playfulness at work and under stress. These findings highlight the value of assessing context-specific playfulness to better understand its interaction with vocational interests, which can inform organizational strategies to boost well-being and productivity in demanding environments.

Our person-centered analysis identified three profiles: Disinterested, People-oriented, and Practical-Investigative. The Disinterested profile had the lowest playfulness scores, suggesting that individuals with minimal interest in any work activities tend to be less playful. In contrast, those with broader interests reported higher playfulness. Several studies have suggested a general factor within interest inventories that may represent a meaningful aspect of personality (e.g., Gottfredson & Jones, 1993). Individuals with elevated profiles and diverse interests have been described as preferring complexity and as being enthusiastic, sociable, impulsive, and spontaneous (Holland, 1985; Stewart, 1960)—all characteristics commonly associated with playfulness. This suggests that playfulness may reflect the versatility of one's interests, highlighting adaptability and flexibility. However, as our data are cross-sectional, causal inferences cannot be drawn.

2.3.1. Limitations

Our study has several limitations aside from the cross-sectional data. First, we used a general measure for playfulness, lacking nuance in assessing its facets. For example, social and intellectual playfulness may relate to social and investigative interests, respectively. Secondly, the use of single-item indicators for context-specific playfulness goes along with limited reliability and validity. Thirdly, the literature has shown that the stability of solutions from LPA varies across studies. This was also evident in our study, as we could not replicate the six- or eight-profile solutions found in prior studies (McLarnon et al., 2015; Perera & McIlveen, 2018). Although our sample size was comparable to previous studies on vocational interests using LPA (Leuty et al., 2016; McLarnon et al., 2015), larger samples would enhance the robustness of parameter estimation (e.g., Spurk et al., 2020). Fourthly, our sample was comparatively young, well educated, and comprised mostly women, limiting generalizability. While we controlled for age and gender in our analyses, the limited variability in these demographics precluded meaningful moderation analyses. Future research should aim to replicate our findings in more diverse samples. Finally, our reliance on self-report measures introduces common method bias. Self-reported interests are the standard in the field, but may still not always align with actual career choices due to factors like incongruent interests or limited job opportunities. To address this, we examined participants' actual career choices and their relation to playfulness in Study 2.

3. Study 2

In Study 2, we build on the findings of Study 1 by exploring how facets of playfulness relate to study majors among university students and occupations among professionals. We extended our prior findings by focusing on actual academic and occupational choices rather than just interests, which do not necessarily translate into real-life choices.

Our first aim was to examine potential differences in playfulness between students and professionals, using measurement invariance analyses to ensure that playfulness could be meaningfully compared across these groups. Secondly, we analyzed differences in playfulness across study fields and professions by categorizing participants into one of the six RIASEC groups. Based on Study 1, we expected individuals in artistic and entrepreneurial fields to show higher levels of playfulness compared to those in other roles. Contrary to Study 1, we used a multi-facetted measure of playfulness that allowed us to assess expressions in the four OLIW facets (Proyer, 2017). We expected differences in three of the four OLIW facets across RIASEC groups: other-directed playfulness (e.g., playfully interacting with others) would be highest in socially-oriented occupations, intellectual playfulness (e.g., enjoying playing with ideas and thoughts) in investigative-oriented occupations, and whimsical playfulness (e.g., fascination for unusual or odd things and people) in artistic-oriented occupations. Thirdly, we conducted a more detailed exploratory analysis of specific study majors and professions, focusing on subsamples with at least 50 participants.

3.1. Method

3.1.1. Sample

Our sample comprised 5017 participants of which 2731 (54.4 %) were students who provided their study majors and 2286 professionals who provided their profession. Of the latter, 1755 participants were employed, 352 in vocational training, 112 retired, 45 unemployed, and 22 indicated "other.". Nearly half of the students (46.0 %, 1255 participants) studied psychology. ESM 2.A displays additional sample characteristics (gender, age, and education).

3.1.2. Instruments

3.1.2.1. Playfulness. As in Study 1, we used the 5-item *Short Measure of Adult Playfulness* (SMAP; Proyer, 2012) to assess general inclinations to playfulness.

3.1.2.2. Facets of playfulness. We assessed four facets of playfulness using the 28-item OLIW questionnaire (Proyer, 2017). The OLIW facets are *Other-directed* (e.g., "I have close friends with whom I can just fool around und be silly."), *Lighthearted* (e.g., "I don't worry about most of the things that I have to do, because there will always be some kind of a solution"), *Intellectual* (e.g., "If I have to learn something new under time pressure, I try to find a playful approach to the topics—this helps me learning"), and *Whimsical* (e.g., "I have the reputation of being somewhat unusual or flamboyant"). Each facet is assessed with seven items, and participants give their responses on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). The OLIW questionnaire showed satisfying reliability (internal consistency, test retest reliability for up to 3 months), factorial validity, measurement invariance between self- and other ratings, convergence with self- and peer reports and daily behavior ratings, and is widely used (e.g., Brauer, Sendatzki, & Proyer, 2024; Farley et al., 2021; Proyer et al., 2018).

3.1.3. Procedure

We compiled published and unpublished datasets on playfulness conducted in the last authors' department (23 studies, $N_{total} = 6283$) into one large dataset. Inclusion criteria were (a) the use of the SMAP and OLIW to assess playfulness and (b) participants reporting their study

field or job title. Data was collected between April 2017 and August 2022. The recruitment and data collection procedures were similar across all datasets. We recruited participants through a combination of on-campus advertisements, social media, leaflets, and postings on the authors' department website. Surveys were administered online. Participants provided informed consent prior to participation and all studies were conducted in accordance with the Helsinki Declaration and national ethical regulations. While no financial compensation was provided, psychology students could earn course credit in most studies. Participants had to be at least 18 years old, with some studies requiring additional criteria, such as being in a relationship or over 40 years, depending on the research focus.

The first author and two psychology undergraduate students independently coded participants' study majors and job titles using coding lists from two German-language vocational interest instruments (Bergmann & Eder, 2018; Proyer & Häusler, 2020). These instruments assign RIASEC profiles as three-letter codes, comparable in function to the U.S.-based O*NET system but adapted to the German context. The inter-rater agreement was high (96.7 %); inconsistencies were resolved through discussions. In cases where occupations were not listed, we applied a three-step process: 1) translating and coding via O*NET On-Line, 2) using alternative, similar titles; or 3) excluding the case. Participants with multiple jobs were also excluded. This resulted in the exclusion of 1266 participants and a final sample of $N = 5017$.[3]

3.1.4. Data analysis

We used measurement invariance (MI) and multivariate analysis of variance (MANOVA) to investigate differences in playfulness among RIASEC types and occupations. We only used complete data sets so there were no missing values across all variables and participants.

3.1.4.1. Measurement invariance. We first tested for MI in playfulness across students and professionals to establish that the groups' scores can be compared in a meaningful way and are not confounded with measurement-related differences. Secondly, we tested whether playfulness ratings are comparable among the six RIASEC groups. For both MI analyses, we examined three degrees of invariance with increasing constraints: (I) configural MI (i.e., invariance regarding the number of factors); (II) metric MI (i.e., invariant item–factor loadings); and (III) scalar MI (i.e., invariance of item intercepts and latent means). We computed MI analyses for the four-dimensional OLIW model and the unidimensional SMAP in Mplus 8.8 (Muthén & Muthén, 2017). We used the mean- and variance-adjusted weighted least squares estimator (WLSMV) to account for the ordinal nature of the response data of the SMAP and OLIW (Brauer et al., 2023). In line with Chen's (2007) recommendation, we evaluated model fit changes in the comparative fit index (CFI), root-mean-square error of approximation (RMSEA), and standardized root-mean-square residual (SRMR). We rejected metric invariance when $\Delta CFI \geq 0.010$ *and* $\Delta RMSEA \geq 0.015$ or $\Delta SRMR \geq 0.030$ and rejected scalar invariance when $\Delta CFI \geq 0.010$ *and* $\Delta RMSEA \geq 0.015$ or $\Delta SRMR \geq 0.010$ (Chen, 2007).

3.1.4.2. MANOVA. We used a MANOVA to compare playfulness means across the six RIASEC groups, controlling for age and gender. We also examined differences in playfulness across specific study majors and occupations by analyzing all groups with ≥ 50 participants. We used η^2 as standardized effect size ($\eta^2 \geq 0.01$, 0.06, and 0.14 indicating small, medium, and large effect sizes; Cohen, 1988). For comparison of mean differences between RIASEC groups, study majors, and professions, we interpreted Hedges' g ($g \geq 0.20$, 0.50, and 0.80 indicating small, medium, and large effect sizes; Cohen, 1988). All data and syntax are openly available in the Open Science Framework (https://osf.io/wkexa/).

3.2. Results

3.2.1. Preliminary analysis

We provide descriptive statistics for the total sample, students, and professionals in ESM 2.B and ESM 2.C. The SMAP demonstrated high internal consistency (α and $\omega = 0.89$), while the OLIW facets were sufficient (α and $\omega \geq 0.60$). Playfulness was not robustly associated with age ($|r| \leq 0.19$) and gender ($|g| \leq 0.19$); though men scored higher in lighthearted playfulness ($g = 0.45$). Students were notably younger than professionals ($g = 1.27$), but there were no robust differences in playfulness ($g \leq 0.20$).

We coded 104 different RIASEC combinations in study majors and professions, with SAI ($n = 1630$), ESC ($n = 249$), and CES ($n = 230$) being most frequent. Half of the participants (50.8 %) were assigned to the social type, while the other RIASEC groups ranged from 6.0 % (Artistic) to 15.2 % (Enterprising; see ESM 2.D for all frequencies).

3.2.2. Measurement invariance

3.2.2.1. Professionals and students. We tested for MI between students and professionals for both playfulness questionnaires (Table 2). Scalar invariance was supported for both the OLIW and SMAP, indicating that the number of factors, the item–factor loadings, and the latent means did not robustly differ between students and professionals ($\Delta CFI \leq 0.008$, $\Delta RMSEA \leq -0.004$, $\Delta SRMR \leq 0.001$). Accordingly, we found negligible differences in the OLIW and SMAP means between students and professionals ($g \leq 0.20$), allowing us to use the total sample for further analyses.

3.2.2.2. RIASEC groups. We then tested for MI in playfulness across the six RIASEC groups (Table 2). The SMAP demonstrated scalar invariance ($\Delta CFI \leq 0.001$, $\Delta RMSEA \leq -0.049$, $\Delta SRMR \leq 0.003$). For the OLIW questionnaire, we rejected scalar invariance (i.e., differences in the latent means between interests; $\Delta CFI = -0.015$, $\Delta RMSEA = 0.001$,

Table 2
Measurement invariance analysis between (A) students and professionals and (B) the RIASEC groups in the OLIW and SMAP (Study 2).

	Index	Configural	Metric	Scalar	Δ I vs II	Δ II vs III
(A) Students vs. professionals						
SMAP[a]	CFI	0.995	0.997	0.998	0.002	0.001
	RMSEA	0.145	0.106	0.054	−0.039	−0.052
	SRMR	0.018	0.018	0.019	0.000	0.001
OLIW[a]	CFI	0.856	0.864	0.864	0.008	0.000
	RMSEA	0.073	0.069	0.064	−0.004	−0.005
	SRMR	0.050	0.051	0.051	0.001	0.000
(B) RIASEC groups						
SMAP[a]	CFI	0.996	0.997	0.998	0.001	0.001
	RMSEA	0.140	0.091	0.042	−0.049	−0.049
	SRMR	0.018	0.018	0.021	0.000	0.003
OLIW[b]	CFI	0.793	0.792	0.777	−0.001	−0.015
	RMSEA	0.064	0.063	0.063	−0.001	0.001
	SRMR	0.061	0.064	0.066	0.003	0.002

Note. SMAP = Short Measure of Adult Playfulness. OLIW = OLIW questionnaire. [a] = Mean- and variance adjusted weighted least square estimator. [b] = Maximum likelihood estimator. CFI = Comparative Fit Index. RMSEA = Root Mean Square Error of Approximation. SRMR = Standardized Root Mean Square Residual.

[3] Data from 2012 participants (40.1 %) were already published (Brauer, Friedemann, et al., 2023; Brauer et al., 2022; Brauer, Sendatzki, and Proyer, 2024; Proyer & Brauer, 2020; Proyer et al., 2020). Analyses do not overlap, and Study 1 data are not included.

ΔSRMR = 0.002) but could assume metric invariance, showing no differences in the number of factors and item-factor loadings.[4] Thus, while latent means differed among RIASEC groups for the OLIW, the comparability of measurement models allowed us to compare the observed scores in further analyses (Chen, 2007).

3.2.3. Differences in playfulness between RIASEC groups

We conducted a MANOVA to compare the means of the SMAP and OLIW facets across RIASEC groups (Table 3). The total model, which included all RIASEC groups and both playfulness questionnaires, was statistically significant ($p < .001$) with a negligible effect size ($\eta^2 = 0.007$). Next, we examined the OLIW facets alone and found differences between the RIASEC groups ($p \leq .002$), but the effect sizes remained negligible ($\eta^2 \leq 0.011$). As illustrated in Fig. 1, participants in artistic study majors and jobs showed higher playfulness across all facets, with whimsical playfulness showing the largest effect ($g = 0.40$). Participants in realistic occupations had the highest level of lighthearted playfulness ($0.16 \leq g \leq 0.33$). Taken together, we found minor differences in playfulness between RIASEC groups.

3.2.4. Differences in playfulness between study majors and occupations

In the student sample, eight study majors with >50 individuals emerged ($n_{total} = 2054$): Psychology ($n = 1262$), Business Psychology and Media Psychology ($n = 214$), Teaching ($n = 167$), Sociology ($n = 122$), Business and Economics ($n = 85$), Medicine and Dentistry ($n = 83$), Law ($n = 66$), and Social Work ($n = 55$). A MANOVA indicated significant differences in playfulness among these majors ($F_{35,\ 8583.94} = 2.64$, $p < .001$), with a small effect size ($\eta^2 = 0.009$; see ESM 2.E for means). However, we only found differences in the SMAP scores ($\eta^2 = 0.013$). Descriptively, Law (E) and Business/Media Psychology (E) students reported lower playfulness in the SMAP compared to Social Work (S), Sociology (S), and Teaching students (S; $0.31 \leq g \leq 0.44$; Fig. 2.A).

Among working professionals, ten occupations emerged ($n_{total} = 948$), which comprised between 60 (Logistic Specialists) and 144 individuals (Office and Administrative Workers). The MANOVA indicated significant playfulness differences across professions ($F_{45,\ 4163.22} = 2.71$, $p < .001$), with a small effect size ($\eta^2 = 0.025$; see ESM 2.F for means). Significant but small effects emerged for the SMAP and all playfulness facets ($0.018 \leq \eta^2 \leq 0.032$), except for other-directed playfulness. Descriptively, Childcare Workers (S) and Researchers (I) had the highest playfulness scores in the SMAP ($g = 0.37$ and 0.30, respectively), while Business and Commercial Workers (E/C) had the lowest ($g = 0.21$). Logistic Specialists (C) and Farmers (R/E; $g = 0.25$ and 0.24) exhibited the highest lighthearted playfulness, while Social Workers (S; $g = 0.21$) and Business and commercial workers (E/C; $g = 0.20$) showed the lowest. For intellectual playfulness, Logistic specialists (C; $g = 0.30$) and Nurses (S; $g = 0.22$) had the lowest means, while Farmers (R/E) had the highest whimsical playfulness ($g = 0.47$).

3.3. Discussion

This study extended our investigation by exploring how playfulness relates to *actual* career choices. These findings provide nuanced insights for vocational guidance, indicating that playful traits may be associated with preferences for study fields or professions emphasizing creativity, self-expression, and unconventional approaches.

3.3.1. Comparing students and professionals

Measurement invariance analyses indicated that playfulness measures were comparable between students and professionals, indicating that observed differences reflect true variations rather than measurement bias—consistent with previous findings (Brauer & Proyer, 2017). Interestingly, playfulness varied more across occupations than study fields, suggesting that professional environments may offer more opportunities for distinct expressions of playfulness than the academic settings typically experienced by students. Students within the same field may be more heterogeneous in their personalities than professionals in the same job. For instance, psychology graduates can pursue various careers (e.g., in consultancy, research, or therapy), leading to varied playfulness expressions. Also, academic environments may limit the expression of playfulness compared to the heterogenous demands in different occupations, suggesting that differences may emerge later in careers rather than during studies. Moreover, the selectivity of university students in Germany (54.7 % of the cohort entered university in 2022; Statistisches Bundesamt, 2022) could limit the generalizability of our findings, excluding those not pursuing higher education.

3.3.2. RIASEC groups

Based on Study 1, we expected higher playfulness in enterprising and artistic occupations. While artistic roles showed elevated playfulness (except for lighthearted playfulness), enterprising occupations did not. This may reflect a misalignment between self-reported interests and the structured demands of such careers. Organizational culture and role expectations may suppress playfulness over time, or playful individuals might move to roles better suited to their traits. Future research should examine how organizational culture affects playfulness (e.g., West et al., 2013) and how this relates to job satisfaction and career stability.

3.3.3. Facets of playfulness

Contrary to our expectations, differences in OLIW facets across RIASEC groups were limited. Intellectual playfulness was not higher in investigative occupations nor researchers, possibly because it manifests differently in leisure versus work contexts. For example, the item “a discussion is nothing more than playing with ideas” (shortened) could refer to informal settings like conversations with friends, whereas the item “playfulness only detracts from work when one has a concrete task to perform” (reversed; shortened) clearly implies a work context. Such contextual ambiguity may explain the limited differentiation across vocational groups. Similarly, other-directed playfulness was not more pronounced in socially-oriented careers. As discussed for intellectual playfulness, this may be due to differences in how playfulness is expressed in professional versus personal contexts. For example, professional interactions in social fields tend to be more structured and formal, limiting opportunities for spontaneous playful exchanges. However, whimsical playfulness was notably higher in artistic roles, supporting the idea that creative careers attract unconventional individuals. Nonetheless, the OLIW's lack of contextual sensitivity may have limited the detection of nuanced differences.

In conclusion, while some hypotheses were supported, others highlight the complexity of playfulness across contexts and facets. Our findings call for further research into the contextual variability of playfulness and its implications for vocational guidance and person-job fit.

3.3.4. Limitations

Our study has several limitations. Although we coded all occupations using full three-letter RIASEC profiles, we used only the primary letter for the analyses to ensure statistical power and interpretability, given the large number of possible code combinations (i.e., $k = 104$ combinations). This simplification may obscure the multidimensional nature of some occupations. For example, “farmer” is typically classified as Realistic (R), but specific roles may also involve Enterprising (E) aspects such as business management. Thus, relying only on the primary type may introduce ambiguity, but was needed to allow for clear assignments of the RIASEC main interests. Secondly, our interpretation assumes perfect congruence between participants' vocational interests and their actual career choices. However, internal and external factors (e.g., socioeconomic background, personal considerations) may limit the

[4] Because some artistic respondents did not use all response options, the OLIW models were estimated with ML instead of WLSMV.

Table 3
Means, standard deviations, and MANOVA for playfulness scales and RIASEC groups (controlled for age and gender; Study 2).

	R (n = 395)		I (n = 449)		A (n = 301)		S (n = 2551)		E (n = 762)		C (n = 559)		$F_{5,\ 5009}$	p	η^2
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*			
SMAP	4.36	1.30	4.49	1.25	4.83	1.18	4.49	1.24	4.29	1.32	4.28	1.36	10.90	< .001	.011
Playfulness facets															
Other-directed	4.90	0.99	4.88	0.94	5.13	0.85	5.05	0.90	5.02	0.91	4.89	0.99	4.73	< .001	.005
Lighthearted	4.29	1.05	4.00	0.98	4.12	1.00	3.95	1.03	4.07	1.03	4.10	0.92	3.75	.002	.004
Intellectual	4.05	0.75	4.09	0.80	4.36	0.82	4.09	0.83	4.04	0.83	4.06	0.80	9.20	< .001	.009
Whimsical	4.26	0.99	4.15	1.00	4.57	0.95	4.13	1.01	4.10	1.07	4.16	0.98	11.09	< .001	.011

Note. SMAP = Short Measure of Adult Playfulness. R = Realistic. I = Investigative. A = Artistic. S = Social. E = Enterprising. C = Conventional. Total model: $F_{25} = 6.89$, $p < .001$, $\eta^2 = 0.007$.

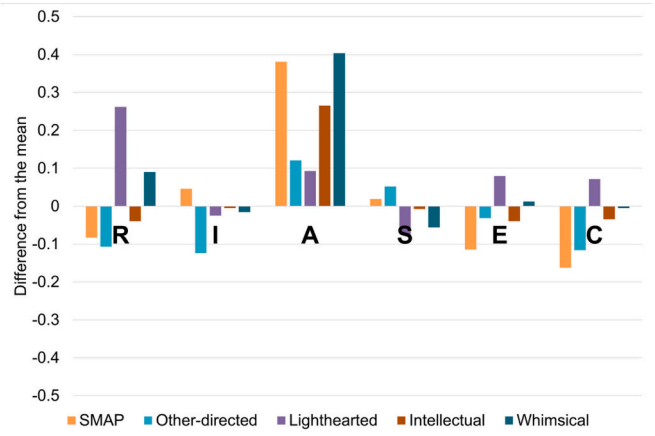

Fig. 1. Centered means in the SMAP (Short Measure of Adult Playfulness) and OLIW according to their occupational type.
Note. R = Realistic, I = Investigative, A = Artistic, S = Social, E = Enterprising, and C = Conventional interests.

translation of interests into real-life decisions. Future research should examine discrepancies between vocational interests and career choices and how these relate to work-related outcomes and personality traits. For example, playful individuals might more easily adapt to jobs incongruent with their interests, potentially seeking such roles to add excitement to their work lives. Thirdly, about half of our student sample were psychology students. This may limit the representativeness of broader groups—particularly the Social RIASEC group. For example, if psychology students differ systematically from students in other socially oriented disciplines (e.g., education or social work), this could influence how well our findings generalize to the wider Social domain. Future research should aim for a more heterogeneous sample in terms of study fields. Finally, the OLIW questionnaire was not developed to assess playfulness specifically in workplace contexts. While we conceptualize playfulness as a relatively stable personality trait, future studies could benefit from context-sensitive instruments—either through state-level assessments or tailored workplace playfulness scales—to capture work-specific expressions more accurately.

4. General discussion

In two studies, we examined the role of playfulness regarding vocational interests and career choices, relying on self-reported interests (Study 1) and externally RIASEC-coded study majors and occupations (Study 2). By investigating how playfulness aligns with vocational preferences and career paths, we aimed to investigate its relevance for vocational psychology and its potential implications for workplace dynamics.

4.1. Playfulness in vocational contexts

Our findings indicate that playfulness extends into vocational settings. In Study 1, playfulness accounted for 20 % of the variance in RIASEC interests, underscoring its relevance to vocational preferences. This aligns with prior research highlighting playfulness's role in professional environments (Petelczyc et al., 2018; Proyer & Sendatzki, in press). Participants reported engaging in playfulness in work settings, with colleagues, and even in stressful situations, supporting Proyer's (2014) findings on playfulness's role in alleviating tension, motivating others, and cultivating relationships. This underscores that playfulness extends beyond leisure, serving multiple functions in different, even professional, contexts.

Playful individuals exhibited diverse work interests, with artistic interests consistently emerging as strong correlates across methods and samples. This suggests that playfulness might contribute to flexibility and adaptability across various tasks and roles. This adaptability could make playfulness an asset in various industries, particularly in roles requiring innovation or flexibility. Future research should explore how playful individuals adapt to different workplace demands, how employers perceive playfulness in recruitment, and whether integrating playfulness into hiring practices could enhance person-environment fit and workplace satisfaction.

4.2. Playfulness and specific occupations

Study 1 showed that playful individuals particularly favored enterprising work activities, consistent with research linking playfulness to entrepreneurial traits such as unconventional thinking and creative and innovative behavior (Proyer et al., 2019; Proyer & Jehle, 2013; Yu et al., 2007). Future research should extend this line of research by testing how playfulness could contribute to productivity and foster positive team dynamics in business and leadership roles. Also, it should be explored how playfulness can potentially enhance innovation and collaboration in enterprising professions, as well as its potential to improve workplace culture.

Study 2 showed that while playfulness did not differ between most fields or professions, those in artistic fields exhibited significantly higher levels of playfulness. This suggests that playfulness may align particularly well with artistic careers which involve unsystematized, ambiguous activities and creative work with people and material (Holland, 1997). One possible explanation is that traits associated with playfulness—such as creative thinking, openness to new experiences, and a preference for non-routine tasks—are especially useful in artistic domains, where innovation, experimentation, and divergent thinking are central to performance. Such cognitive and motivational mechanisms may partly explain why playful individuals prefer artistic roles. Roles such as acting, designing, or writing may benefit from playful traits by fostering engagement, creativity, and adaptability. While these results highlight the alignment between playfulness and artistic professions, it remains unclear whether playful employees in these fields are more productive, successful, or satisfied with their roles, though it is

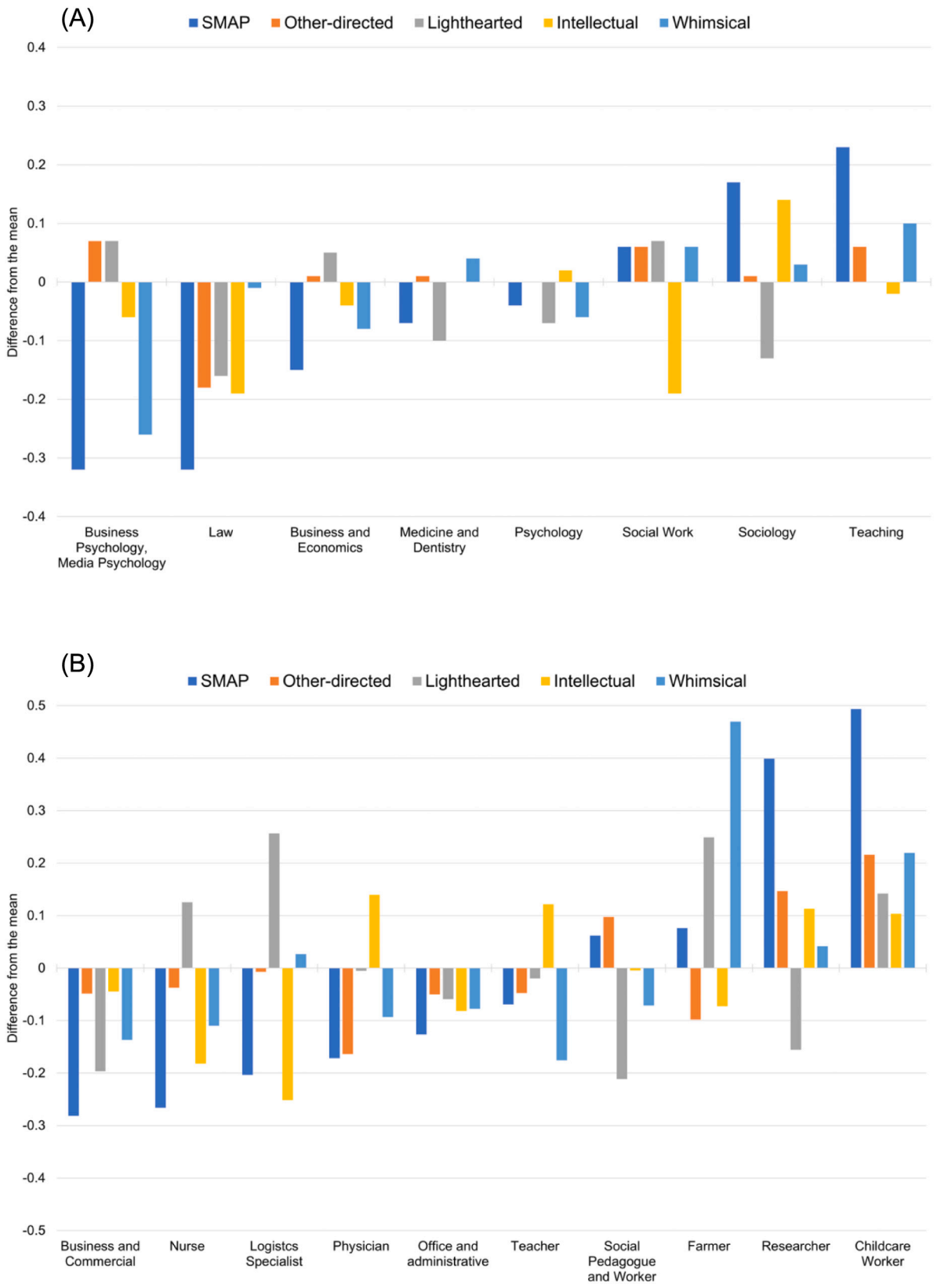

Fig. 2. Centered means in the SMAP (Short Measure of Adult Playfulness) and OLIW in the most frequent study majors (A) and professions (B).

reasonable to assume that those who remain in their roles tend to be more successful (e.g., Vedel, 2016). Future research should examine performance and satisfaction outcomes to clarify whether playfulness contributes to long-term career success and well-being. For now, playfulness may be considered a complementary factor in hiring decisions, evaluated alongside skills and experience.

Finally, our findings suggest that broad classifications like RIASEC groups may oversimplify the nuanced relationships between playfulness

and career choices, as well as the specific tasks that attract playful individuals. These classifications may also obscure the distinct demands and behavioral repertoires required in different jobs; this is in line with earlier approaches that emphasize classifying job activities rather than entire occupations (Proyer & Häusler, 2020). Small differences in playfulness among RIASEC groups (1 % of variance explained) became more pronounced when examining specific study majors and professions (up to 3 % of variance explained). For example, childcare workers (Social) had higher playfulness compared to office workers (Conventional), despite no significant differences emerging between the broader social and conventional RIASEC groups. While the explained variance may appear modest, these patterns are in line with findings for the Big Five traits, where broader occupational groupings typically account for 1 %–4 % of the variance (Törnroos et al., 2019), and finer-grained classifications (e.g., 263 occupational groups) explain up to 7 % (Anni et al., 2025). Similarly, in Study 1, we found stronger associations between playfulness and self-reported vocational interests, with shared variance around 20 %. One possible reason for this discrepancy may lie in methodological differences, such as the use of self-report measures in Study 1 versus externally coded occupations in Study 2. These comparisons suggest that while playfulness is a narrower construct than general personality traits, its explanatory value in vocational contexts appears to be in a comparable range.

4.3. Implications for career counseling and research

Our findings offer insights for career counseling and organizational practice. While playful individuals might gravitate toward creative and autonomous roles (e.g., artistic or enterprising), it is important not to restrict them to these professions. Instead, counselors can help clients understand how their playful traits relate to their preferences and satisfaction in various roles. For example, playful individuals might thrive in autonomous and creative roles, such as marketing or education, but they could also apply their playfulness in structured settings—by building rapport as a nurse or maintaining engagement in repetitive tasks as a bookkeeper. Such insights can help align personality traits with professional goals more effectively.

Organizations can also benefit by fostering environments that accommodate playful individuals, even in highly structured or hierarchical settings. Incorporating playful elements, like problem-solving challenges or flexible task structures, can enhance engagement and creativity. One approach could involve playful work design, where employees actively shape their tasks to make them more enjoyable, thereby promoting a better person-job fit (Bakker & van Woerkom, 2017; Scharp et al., 2019, 2023). Allowing playful employees to design their work in ways that suit their tendencies could lead to greater satisfaction and productivity.

Future research should explore specific occupations to better understand how playfulness manifests across work environments and which roles benefit most from interventions that enhance playfulness (e.g., Brauer, Scherrer, & Proyer, 2021). Proyer et al. (2021) showed that brief self-directed activities effectively increased playfulness, with positive effects on well-being and reduced depressive symptoms. Examining the impact of such activities in occupational contexts could clarify whether fostering playfulness also improves job satisfaction and performance (e.g., Scharp et al., 2023; West et al., 2017).

Future studies could examine potential mediating and moderating factors that shape the role of playfulness in vocational development and outcomes. For example, job autonomy, organizational culture, and person–environment fit may influence how playfulness relates to career interests and choices. A deeper understanding of these mechanisms may help identify contexts in which playfulness is particularly adaptive or constrained.

Reciprocal relationships between career paths and personality are an important future research avenue. While we focused on how playfulness relates to vocational interests and choices, it is also plausible that job characteristics influence the development or expression of playfulness over time. Longitudinal or experience-sampling approaches may be useful to explore such dynamic associations.

Finally, it also remains an open question whether playfulness provides incremental value beyond broader personality traits like the Big Five or HEXACO. Although this was beyond the scope of the present study, examining the unique contribution of playfulness beyond broader traits would deepen our understanding of its role in vocational psychology.

5. Conclusion

Our studies underscore the importance of playfulness as a vocationally relevant personality trait, providing insights into individual differences in career choices and workplace behavior. Playful individuals are particularly inclined to artistic and enterprising professions, as demonstrated by their vocational interests and career choices. Recognizing this link can help career counselors guide individuals toward roles that match their playful tendencies or encourage integrating playfulness into current work environments.

Future research should continue to explore playfulness in workplace contexts, addressing gaps between work and leisure interests, mismatches between vocational aspirations and career choices, and variations in how playfulness manifests in different professions. Since playfulness may manifest differently across various contexts, developing a work-specific playfulness questionnaire would help capture the unique expressions of playfulness at work. By connecting playfulness to vocational interests and career behavior, our study lays the groundwork for further research on personality's role in career development, opening new avenues for understanding how individual differences contribute to workplace success and well-being.

CRediT authorship contribution statement

Rebekka Sendatzki: Conceptualization, Data curation, Formal analysis, Writing – review & editing, Writing – original draft. **Kay Brauer:** Conceptualization, Data curation, Formal analysis, Writing – review & editing, Writing – original draft. **René T. Proyer:** Conceptualization, Data curation, Writing – original draft, Writing – review & editing.

Informed consent

All data were collected with participants' informed consent and in line with the guidelines of the German Psychological Association and the Declaration of Helsinki.

Ethical approval

This research is exempt from ethical approval.

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Declaration of competing interest

The authors declare no conflict of interest.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.paid.2025.113371.

Data availability

All data and syntaxes of this research are openly available under https://osf.io/wkexa/.

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