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Exploring the acquaintanceship effect for the accuracy of judgments of traits and profiles of adult playfulness

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Abstract

Objective: We aimed to extend the research on the interpersonal perception of adult playfulness (global and facets: Other-directed, Lighthearted, Intellectual, and Whimsical [OLIW]) by testing whether judgmental accuracy relates to indicators of acquaintanceship.

Background: Playfulness has been found to contribute to social relationships. **Method:** Using data from 658 dyads (1,318 participants) who had been acquainted for 1 month to 62.2 years, we computed measurement invariance analyses and self-other agreement (SOA) for the facets and profiles of playfulness. We operationalized acquaintanceship as length of acquaintanceship, relationship type (friends, family, and partners), and intensity of acquaintanceship. We tested acquaintanceship effects with multigroup latent analyses and response surface analyses.

Results: Self- and other ratings of playfulness showed scalar measurement invariance and robust SOA in traits and distinctive profiles (\geq .37). There was only minor evidence for acquaintanceship effects for relationship duration (only Intellectual playfulness), and group comparisons showed that friends yielded lower SOA in profiles than dyads of family members and couples.

Conclusion: Considering that playfulness can be accurately perceived even at zero acquaintance, we discuss whether playfulness is a "good trait" (high trait visibility) in which acquaintanceship plays a minor role. We also discuss methodological considerations for detecting acquaintanceship effects during relationship formation.

K E Y W O R D S

adult playfulness, interpersonal perception, OLIW, personality judgments, self-other agreement

1 | INTRODUCTION

"You can discover more about a person in an hour of play than in a year of conversation" is a saying often attributed to Plato that emphasizes the importance of observing someone's playfulness in forming perceptions of their personality. It also suggests that perceiving how others play would offer insights even after comparatively short amounts of time. In the present study, we aimed to investigate the role of acquaintanceship for the accuracy of personality judgments regarding adult playfulness.

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There is increasing interest in the study of playfulness (Bittermann et al., 2021), especially regarding its effects on social life (e.g., the formation and maintenance of social relationships; for an overview, see Brauer et al., 2021). Accurate perceptions of others' traits inform social interactions and relate to positive outcomes (Kenny, 2020), and we extend the knowledge on the interpersonal perception of adult playfulness. Initial evidence shows that people can accurately perceive (facets of) playfulness, even at zero acquaintance (Proyer & Brauer, 2018), but whether perceptions of playfulness become more accurate with increasing acquaintanceship (acquaintanceship effect; Watson et al., 2000) is still unknown. To narrow this gap, we investigated how acquaintanceship relates to self-other agreement (SOA) for facets of adult playfulness using three approaches to acquaintanceship, namely, (a) length and (b) intensity of acquaintanceship and (c) type of relationship (i.e., comparing friends, family members, and partners).

1.1 | Adult playfulness

Play (the behavior) and playfulness (the disposition to play) have primarily been studied in children (e.g., Lieberman, 1977). Nevertheless, playfulness is part of many classifications of adult personality. For example, Murray (1938) listed the need for play ("playful disposition") as a basic need; Cattell (1950) identified playfulness in his principal personality clusters; Goldberg and Rosolack (1994) noted a playfulness cluster in Norman's (1967) trait descriptors; and Peterson and Seligman (2004) viewed humor/playfulness as a character strength (i.e., a positively morally valued trait) in their Valuesin-Action classification of strengths and virtues. Despite the evidence provided by these examples that playfulness has been included in classical structural models of personality, its definition remains far from consensus. For example, Peterson and Seligman used playfulness synonymously with humor, Murray understood it as a basic need, and Goldberg and Rosolack viewed playfulness as part of extraversion. Thus, there is little consensus on the definition, dimensionality, and assessment of playfulness (see Proyer & Brauer, 2023, for a discussion). Also, many structural models and definitions of playfulness lack distinctiveness from theorized outcomes (e.g., humor and creativity) and are limited by a focus on funoriented components while ignoring, for example, intellectual types of playfulness (cf. Proyer & Brauer, 2023).

On the basis of a series of studies using multimethodological approaches (e.g., literature reviews, joint factor analyses of existing playfulness questionnaires, psycholexical analyses, and analyses of laypersons' views of the perceived functions of playfulness; e.g., Proyer, 2012a, 2014; Proyer & Jehle, 2013), Proyer (2017) proposed a revised definition of adult playfulness with the aim of maximizing its distinctiveness from related constructs and recognizing its full scope:

Playfulness is 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. Those on the high end of this dimension seek and establish situations in which they can interact playfully with others (e.g., playful teasing, shared play activities) and they are capable of using their playfulness even under difficult situations to resolve tension (e.g., in social interactions, or in work-type settings). Playfulness is also associated with a preference for complexity rather than simplicity and a preference for-and liking of-unusual activities, objects and topics, or individuals. (p. 114)

1.1.1 | The OLIW model

This definition is accompanied by a structural model that differentiates four facets: Other-directed (i.e., using one's playfulness in social interactions and to solve tension), Lighthearted (i.e., seeing life as a game and liking to improvise), Intellectual (i.e., liking to play with ideas, thoughts, and perspectives; preferring complexity over simplicity), and Whimsical (i.e., liking grotesque or unusual situations and people) types of playfulness. Research using the OLIW model has helped disentangle the core of what playfulness is from outcomes such as creativity or humor and has shown the expected associations with external variables; for example, higher physical health and well-being in playful adults (e.g., Farley et al., 2021; Proyer et al., 2019, 2021; Proyer, Gander, et al., 2018). Furthermore, self-directed activities for the facets have been developed and tested in a placebo-controlled online study. Findings show reduced depressiveness and increased wellbeing for up to 12 weeks post-training (Proyer et al., 2021).

1.1.2 | Adult playfulness in social relationships

Playfulness has merits for social relationships, and laypeople experience playfulness as useful to cultivate relationships across life domains (Brauer et al., 2021; Proyer, 2014). Furthermore, Chick's (2001) *signal theory of play* suggests that playfulness is a highly valued trait in potential partners for opposite-sex long-term relationships because it signals low aggressiveness in men and fecundity/ vitality in women. Indeed, playfulness is a highly desired trait in the ideal partner in German- and English-speaking samples (e.g., Chick et al., 2012, 2020; Proyer & Wagner, 2015), and there is evidence for assortative mating preferences in couples (see Brauer et al., 2021, for an overview). Playfulness contributes to establishing and maintaining relationships (e.g., Aune & Wong, 2002) because it provides safe means of interpersonal and intimate communication, helps to break up routines in long-term relationships, and reduces conflict (cf. Brauer et al., 2021). Studies using the OLIW questionnaire showed that facets of playfulness (primarily Other-directed and Intellectual) relate to actors' and partners' relationship satisfaction, sexualityrelated variables (e.g., sociosexuality and preferences for bondage/domination/sadism/masochism [BDSM]), love styles, lower levels of loneliness, and number of short- and long-term relationships (Brauer, Friedemann, et al., 2022; de Moraes et al., 2021; Farley et al., 2021; cf. Brauer et al., 2021). Taken together, playfulness contributes to how adults deal with and experience their social environment. Considering the role of playfulness in adults' social lives, accurately perceiving how others deal with and engage in playful behaviors and attitudes may facilitate the establishment and maintenance of social relationships.

1.2 | Interpersonal perception of adult playfulness

In general, interpersonal perception can be studied by asking an observer to provide a judgment about the expression of a trait in a target person. The accuracy of judgments is usually evaluated by two approaches: (a) self-other agreement (SOA) and (b) interjudge agreement (consensus; Funder & West, 1993).¹ SOA is the correlation between targets' self-reports and informant reports, whereas consensus is the degree of agreement between two or more observers (Kenny, 2020). Observer reports provide incremental information over and beyond self-reports because they allow for insights into personality traits that might be less accessible to targets because of biases (e.g., the self-serving bias; Connelly & Ones, 2010; Vazire, 2010). For example, the inclusion of other ratings of playfulness helped identify facets that relate to health-related behaviors (Proyer, Gander, et al., 2018) and preferences for love styles in couples (Proyer, Brauer, et al., 2018). From a practical standpoint, the ability to form accurate impressions is important in various circumstances, particularly in the formation of relationships (e.g., when seeking a partner or friend who is similarly playful and when estimating and adjusting one's behaviors to those of a social partner).

Initial evidence suggests that playfulness can be accurately observed, as demonstrated by studies that have analyzed the SOA and consensus using Jackson's (1984) Personality Research Form (PRF). The PRF includes the *Need for Play* scale (Murray, 1938) and across five samples (*N*s between 107 and 169), Ostendorf et al. (1986) found robust SOA, with an average correlation of 0.44, and strong consensus (mean intraclass correlation = 0.79). Fekken et al. (1987) also reported positive SOA between self-reports on the PRF's Need for Play scale and a single-item peer rating ("Play—fun–loving") of 0.22 (r = 0.69 when disattenuated for the low reliability). However, the need for play does not fully cover what trait playfulness is, because it mainly assesses nonseriousness and entertainment (e.g., "To relax, amuse oneself, seek diversion and entertainment," To 'have fun,' ..., joke and be merry" Murray, 1938, p. 83) and neglects other aspects (e.g., intellectual types of playfulness). Thus, findings must be interpreted cautiously.

More recently, the interpersonal perception of playfulness in terms of the OLIW facets and a brief measure assessing the disposition to an easy onset of a playful attitude (Short Measure of Adult Playfulness [SMAP]; Proyer, 2012b) have been tested. Samples including different types of dyads, such as acquaintances, family members, and partners, showed robust SOA for Other-directed (0.44 \leq rs \leq 0.47), Lighthearted (0.49 \leq rs \leq 0.52), Intellectual $(0.44 \le rs \le 0.46)$, and Whimsical playfulness $(0.55 \le rs \le 10^{-1})$ 0.57), as well as the SMAP (r = 0.51; Proyer, 2017; Proyer, Gander, et al., 2018). The findings replicated well when a 12-item brief-form of the OLIW questionnaire was used (Proyer et al., 2020). In a study of 77 couples, SOA coefficients exceeded 0.55, except for Intellectual playfulness (0.33; Proyer, Brauer, et al., 2018), showing that partners yielded the comparatively highest SOA. Finally, the OLIW facets were accurately judged at zero acquaintance, when six observers provided inferences of playfulness from targets' short textual self-descriptions (\leq five sentences; Proyer & Brauer, 2018). SOA correlations were between 0.21 (Intellectual) and 0.37 (Lighthearted),² and the consensus between judges was high, with coefficients between 0.69 (Intellectual) and 0.80 (SMAP).

Taken together, the existing research suggests that individuals can accurately judge both global playfulness and specific facets of playfulness, regardless of the extent of their familiarity with the person being judged. However, there is still a gap in our understanding of the relationship between acquaintanceship and the accuracy of playfulness perception—will greater familiarity lead to greater accuracy in the perception?

1.3 | The acquaintanceship effect

The acquaintanceship effect suggests that SOA increases as a function of acquaintanceship. It assumes that observers have an increasing number of opportunities to collect

trait-relevant information about the targets across time and situations, which leads to more accurate judgments in comparison to lower levels of acquaintance (Funder, 1995; for a mathematical model, see Kenny, 2004). Thus, increases in shared time spent between perceivers and targets across situations and contexts should allow for more observations that can be integrated into more veridical judgments (Kenny, 2020). This finding is well established over short periods of time (e.g., accuracy increases after 10-, 20-, and 30-min exposures; e.g., Blackman & Funder, 1998) and longer durations (e.g., across 15-week intervals; Kurtz & Sherker, 2003; for an overview, see Kenny, 2020).

The acquaintanceship effect has been widely studied using two prevalent approaches: (a) comparing subgroups that reflect different degrees of acquaintanceship and (b) testing associations between accuracy and a quantitative measure of acquaintanceship. The first approach compares the accuracy of judgments among groups that differ in their type of acquaintanceship. Watson et al. (2000) compared the SOA for the Big Five personality traits and affect scales between dyads of friends, dating couples, and married couples and found that personality judgments of the Big Five traits were more accurately judged in married couples ($M_r = 0.56$) in comparison to dating couples and friends ($M_{rs} = 0.47$ and 0.41), indicating that married couples' accuracy coefficient is about 30% higher than those of friends. Metaanalyses have corroborated such findings (Connelly & Ones, 2010; Connolly et al., 2007). Connelly and Ones' (2010) meta-analysis found that well-acquainted dyads (r = 0.46) provided more accurate judgments than casual acquaintances (r = 0.38) for the Big Five traits. In addition, Allik et al. (2016) compared SOA correlations of full profiles of the Big Five and HEXACO traits (i.e., considering all traits simultaneously) between dyads of friends, partners, and family members. They found statistically significant differences in the SOAs, but effect sizes were small ($\eta^2 \leq 0.017$; partners > family > friends). Thus, the acquaintanceship effect is not limited to single traits but extends to profiles of traits.

The second approach operationalizes acquaintanceship quantitatively (e.g., length and intensity of acquaintanceship; Allik et al., 2016; Lee & Ashton, 2017; Paunonen, 1989) and analyzes associations between acquaintanceship and indicators of accuracy. Findings are mixed but tend to show positive but small associations ($rs \approx 0.10$) and partially depend on the analytic approach and design used (e.g., Allik et al., 2016; Biesanz et al., 2007; Lee & Ashton, 2017; Schneider et al., 2010; Watson et al., 2000).

Irrespective of the approach and the magnitude of effect sizes, the acquaintanceship effect is an important mechanism by which to explain the accuracy of 14676494, 2024, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/jopy.1239 by Fak-Martin Luther Universitats, Wiley Online Library on [15/03/2024]. See the Terms and Conditions (https://onlinelibrary.wiley.com/term and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

personality judgments. Moreover, the acquaintanceship effect is robust across cross-sectional and longitudinal designs (Biesanz et al., 2007; Kenny, 2020; for a discussion, see Brauer et al., 2022a). To date, no study has systematically examined how acquaintanceship relates to SOA in playfulness. Initial evidence supports the notion of an acquaintanceship effect for playfulness because stranger ratings (zero-acquaintance study; Proyer & Brauer, 2018) are, on average, less accurate than those reported in couples and mixed samples, including friends, colleagues, and partners (e.g., Proyer, Brauer, et al., 2018).

1.4 | The present study

We aimed to test how acquaintanceship relates to the accuracy of judgments of playfulness. We first examined the measurement invariance of self- and other reports. Only with invariance established can meaningful comparisons between self- and other reports be made (Mõttus et al., 2020).

Because of the varying methods of assessing and conceptualizing acquaintanceship (Wiedenroth & Leising, 2020), we assessed acquaintanceship using three commonly used methods in prior research. We distinguished between (a) length of acquaintanceship, (b) intensity of acquaintanceship, and (c) type of relationship (i.e., friends, family, and couples). In accordance with the literature (e.g., Allik et al., 2016; Watson et al., 2000), we compared the SOA among groups (type of relationship) and planned to investigate the associations between continuous indicators of acquaintanceship (length and intensity) and SOA. We expected to find the typical pattern of accuracy regarding type of relationship, namely, that friends would show lower accuracy than family members and partners when comparing the SOAs between the groups (Connelly & Ones, 2010; Watson et al., 2000). We expected to find the typically reported differences between groups of about $\Delta r \approx 0.05$ between friends and family members, and family members and couples. For the relations between SOA and acquaintanceship length and intensity, we expected to find support for the acquaintanceship effect (i.e., higher agreement in dyads who had been acquainted longer). Literature suggests that the development of SOA over time is nonlinear, with a stronger increase in the early stages of relationships compared to later stages (Brauer et al., 2022a). To account for this, we employed polynomial regression analyses (response surface analyses; RSA) instead of a linear analysis approach. To the best of our knowledge, this is the first study to examine the acquaintanceship effect utilizing RSA.

We assessed the accuracy of playfulness ratings by investigating the SOA for single facets (variable-centered approach) and the full profiles of the OLIW facets (personcentered approach). For the latter, we used Furr's (2008) approach to analyze profile agreement, which allows us to decompose the raw profile agreement into normative agreement (i.e., how are stereotypical views about an average person correlated between targets and observers?) and distinctive agreement. The latter adjusts for stereotype effects and desirability (Wood & Furr, 2016) and describes the agreement in *deviations* from the average profile (i.e., is a target who perceives themselves as more playful than the average target perceived as more playful than an average target?). Thus, using profile analyses has two merits: It allows us to draw conclusions about whether observers' accuracy extends from single facets to profiles, and it disentangles normative and distinctive components. Previous research has demonstrated that playfulness is considered a desirable personality characteristic (Chick et al., 2012). To avoid potential confounding between agreement and desirability, we focused on the analysis of distinctive profiles (as discussed in Wood & Furr, 2016). We expected to find that profile SOA increases with the length of relationship and that SOA is highest in partners, followed by family members, and then friends, in accordance with prior studies that have examined profile agreement and acquaintanceship of broad traits (Allik et al., 2016; Lee & Ashton, 2017; Watson et al., 2000). In line with prior studies, we expected to find small effect sizes for associations between profile SOA and length of acquaintanceship (rs between 0.05 and 0.10) and between groups representing different types of relationships ($\eta^2 \leq 0.05$).

2 | METHOD

2.1 | Samples and procedure

Our sample comprised 658 dyads consisting of one target and one informant (standard dyadic design; no reciprocal ratings). The duration of acquaintanceship among the participants varied between 1 month and 746 months (*M* = 143.3, *SD* = 130.4, *Mdn* = 94.5). Of those, 315 dyads identified as couples, 179 as friends, and 164 as family members.³ Targets were 379 women, 268 men, 8 participants who identified as nonbinary, and three preferred not to say. Informants were 307 women, 345 men, 5 nonbinary participants, and one preferred not to indicate their gender. There was no robust relationship between the gender of targets and informants (r = -0.19). Targets' mean age was 28.9 years (SD = 12.9, [18, 83]), and informants' mean age was 32.3 years (SD = 14.8, [15, 83]). Based on the self-reported information on the highest degree obtained by the participants, the educational status of the targets was high; 21.1% have completed 9-10 years of school, 36.9% held a high school diploma qualifying them to attend university, 24.8% held a university degree, and 15.0% have completed vocational training (the remaining held a doctoral degree [1.4%], had no degree [0.5%], or did not indicate their educational status, 0.4%). Similarly, 23.9% of informants have completed 9-10 years of school, 26.7% held a high school diploma qualifying them to attend university, 28.8% held a university degree, and 16.3% have completed vocational training (the remaining held a doctoral degree [2.7%], had no degree [1.7%] or did not indicate their educational status [0.8%]). Half of the targets were university students (46.8%), 13.5% were employees, 12.8% high school students, 9.3% in vocational training, 3.2% retired, and 0.6% unemployed (13.8% did not indicate their occupational status). About a quarter of informants were university students (26.3%), 25.8% were employees, 12.3% in vocational training, 7.4% high school students, 4.0% retired, and 1.7% unemployed (7.6% did not indicate their occupational status).

In addition, informants provided information on how intensely they have been acquainted, rated on a 10-point scale (1 = *not at all*, 10 = *very well*). Our dyads knew each other well (M = 8.95, SD = 1.19, Mdn = 9.00, [1,10]), which aligns with previous studies of acquaintanceship effects (e.g., Allik et al., 2016; Lee & Ashton, 2017) but restricts variance in low levels of acquaintanceship intensity ($\leq 2.6\%$ dyads reported an intensity rating of \leq "6"). Contrary to our planned approach of treating intensity as continuous variable, we followed Allik et al. (2016) and analyzed acquaintanceship intensity as categorical variable to account for the restricted variance and non-continuous distribution.

We recruited participants online via advertisements (to take part in a "study on the perceptions of others' personalities") on social media and the authors' department's website. Participants completed an online questionnaire (hosted on www.soscisurvey.de) and targets forwarded their dyad code and the link to the other report questionnaire to their informants. Inclusion criteria were that targets had to be \geq 18 years old; speak German fluently; and be willing to forward the link to the informant report questionnaire to their partner, a friend, or a family member, who then provided informant reports. Targets and informants completed their respective questionnaires on average in 5 to 10 minutes. There was no financial compensation, but psychology students earned course credit upon request. We followed the ethical guidelines of the German Psychological Association.

2.2 | Instruments

The SMAP (Proyer, 2012a) is a five-item questionnaire that assesses playfulness in the sense of an easy onset of

play and a frequent display of playful behaviors using a 7-point rating scale ($1 = strongly \ disagree$, $7 = strongly \ agree$). There is robust evidence for the reliability of the SMAP (e.g., test-retest correlations of 0.74 for 12- to 16-week intervals), and the validity has been supported by factor analyses and convergent and discriminant validity correlations (e.g., Proyer, 2012a, 2017).

The OLIW Questionnaire (Proyer, 2017) comprises 28 items that assess individual differences in Other-directed, Lighthearted, Intellectual, and Whimsical playfulness with seven items each (7-point rating scale; 1 = stronglydisagree, 7 = strongly agree). The seven items per facet aim at covering the breadth of each facet's content; thus, low redundancy among item content results in an alpha that represents only the lower bound of reliability, which is \geq 0.66. However, findings from test-retest correlations $(\geq 0.67 \text{ and } \geq 0.74 \text{ for } 3\text{- and } 1\text{-month intervals})$, interrater agreement, and item response theory analyses support the reliability of the facets (Davis & Boone, 2021; Proyer, 2017; Proyer & Brauer, 2018). The validity of the instrument has been supported in factor analyses, and convergent and discriminant validity correlations (Proyer, 2017; Proyer et al., 2020).

Targets completed the self-report form with items formulated in the first-person point of view (e.g., "I am a playful person"), and informants completed a third-person version (e.g., "He/she is a playful person;" for sample items, see the ESM A).

2.3 | Data analyses

We only downloaded complete data sets from SoSci Survey (i.e., there were no missing data). Our analytic approach to examining SOA followed three steps: First, we examined measurement invariance (MI) between selfand observer reports as an initial check of the comparability of self- and informant ratings. Second, we computed the SOA for profiles and single traits of the OLIW facets. Third, we examined the acquaintanceship effect by (a) analyzing associations between acquaintanceship length and SOA and (b) comparing the SOA across subgroups that differ regarding types of relationships and acquaintanceship intensity.

2.3.1 | Measurement invariance

We computed an MI analysis of self- and informant reports and examined three degrees of invariance that increased with constraints: (a) configural MI (i.e., invariance between self- and informant reports regarding the number of factors), (b) metric MI (invariant item-factor loadings between targets and informants), and (c) scalar MI (invariance of indicator intercepts). We computed MI analyses for the four-dimensional OLIW model and the unidimensional SMAP in Mplus 8.6 (Muthén & Muthén, 1997–2019; estimator = maximum likelihood). In line with Chen's (2007) recommendation, we evaluated the fit of the model constraints regarding 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 $\Delta CFI \ge 0.010$ and $\Delta RMSEA \ge 0.015$ (or $\Delta SRMR \ge 0.030$) and rejected scalar invariance when $\Delta CFI \ge 0.010$ and $\Delta RMSEA \ge 0.015$ (or $\Delta SRMR \ge 0.010$).

2.3.2 | Trait wise agreement

We computed the SOA for single facets of playfulness by correlating targets' and observers' scores. To account for the possibility that differences in reliabilities might affect differences in SOA correlations, we used the latent variable approach. We estimated the latent traits of the SMAP and OLIW facets for targets' self-reports and their informant reports in Mplus and computed the SOA between the latent variables. In the ESM F we also provide the SOA correlations between the manifest scale scores to allow for comparisons with prior research using manifest scores. ESM I gives scatter plots for the SOA analyses. We computed bootstrapped (k = 5000 samples) 95% confidence intervals (CIs) for all correlations.

We examined differences in trait wise SOAs among types of relationships and intensity of acquaintanceship with multigroup analyses for the latent models. Therefore, we estimated two models per playfulness facet, namely, (a) a saturated model in which the SOA correlations are estimated freely among groups and (b) a nested model with invariant SOA correlations among the groups by constraining correlations. We compared the saturated and nested models with Satorra-Bentler's robust maximum likelihood χ^2 difference tests and accepted the saturated model when the χ^2 difference test was statistically significant (p < 0.05), indicating that there are group differences in the SOA correlations. In addition, and in accordance with Watson et al. (2000), we computed the average trait wise correlation coefficient for each group using Fisher r-to-z transformation to describe the average SOA in playfulness for each group. Considering that only few dyads were characterized by intensity ratings < "7," we treated intensity of acquaintanceship as a categorical instead of a continuous variable and analyzed only the 608 dyads who indicated intensity ratings of "8," "9," and "10" to provide sufficient sample sizes for estimating the latent models.

2.3.3 | Profile agreement

In addition to trait wise SOA, we examined the agreement in the full OLIW profiles. A profile contains the set of 28 responses to the OLIW questionnaire and is available from the targets and observers, respectively. We used Furr's (2008) approach and computed three types of profiles and profile agreement: raw, normative, and distinctive. The raw profile agreement describes the correlation between the raw response sets of targets and observers and is computed for each dyad separately. Thus, we computed 658 raw profile agreement coefficients and computed their mean value using Fisher r-to-z transformation, which describes the average raw profile agreement across all dyads. Raw agreement coefficients are inflated by normativeness (i.e., stereotype effects), and Furr recommends adjusting profiles on the so-called normative profile, which describes the profile of an average person. Normative profiles are computed for targets and observers separately and describe how (a) a stereotypical target describes themselves (normative target profile) and (b) a stereotypical observer views others' playfulness on average (normative observer profile). The correlation between the normative profiles, which is typically high (\geq .90), informs about the overlap between stereotypical self- and observer reports (Furr, 2008). Finally, distinctive profiles are adjusted for normativeness and computed by mean-centering each target's profile on the normative target profile and each observer's profile on the normative observer profile. The correlation between targets' and observers' distinctive profiles is the distinctive profile agreement and informs about the overlap of targets' and observers' deviations from the average person. Thus, a positive distinctive profile correlation indicates that a target who perceives themselves as more playful than the average person is also perceived as more playful than the average person. Because raw profile agreement coefficients are confounded with normativeness and desirability, we followed Wood and Furr's (2016) recommendation of focusing on distinctive SOAs for the interpretation of our results as they remove such confounds.

We transformed the 658 profile correlations with Fisher *r*-to-*z* transformation to (a) compute the mean value of profile agreement across the sample and (b) compute a one-sample *t*-test (test value = 0) to examine whether profile agreement differs statistically significantly from 0. Note that we applied this procedure for computing the profile SOA in subgroups (i.e., types of relationships and intensity of acquaintanceship) accordingly. For all coefficients, we computed bootstrapped 95% CIs (k = 5000 samples).

We compared the profile-based SOAs across subgroups of relationship types as well as different intensities of acquaintanceship. We computed analyses of variance (ANOVAs) using "relationship type" and "intensity of acquaintanceship⁴" as factors, respectively. We interpreted the effect size η^2 (values ≥ 0.01 , 0.06, and 0.14 indicate small, medium, and large effect sizes, respectively; Cohen, 1988). In addition, we computed post-hoc LSD tests to compare coefficients between subgroups and report the effect size Hedges' *g* to evaluate the magnitude of the mean differences in profile agreement coefficients independently from statistical significance ($gs \geq 0.20$, 0.50, and 0.80 indicate small, medium, and large effect sizes; Cohen, 1988).

2.3.4 | Testing effects of acquaintanceship length

We examined the association between length of acquaintanceship and SOA separately for profiles and single facets. For the profiles, we correlated acquaintanceship length and profile agreement (e.g., Allik et al., 2016). A positive correlation would indicate that length of acquaintanceship is associated with higher profile SOA.

For the analysis of single traits, we decided against the conventional approach of correlating acquaintanceship length and discrepancies between self- and observer reports because difference scores cannot capture the complex statistical and theoretical nature of congruence between self- and other reports in relation to a third variable (Edwards, 2001). Instead, we used RSA to estimate the relationship between congruence in self- and other reports of playfulness and length of acquaintanceship. A congruence effect describes that the longer the relationship, the closer self- and informant ratings are to each other. For this, we computed a polynomial regression model, which describes the relation between self-ratings (X) and observer ratings (Y) in relation to acquaintanceship length (Z) by the following equation:

$$Z = b_1 X + b_2 Y + b_3 X^2 + b_4 X Y + b Y^2,$$

which creates a surface in three-dimensional space (i.e., *x*-axis = self-report scores; *y*-axis = observers' scores; *z*-axis = acquaintanceship length). The surface is characterized by a line of congruence (LOC) and a line of incongruence (LOIC). Each line is characterized by its slope (parameters are a_1 and a_3 for the LOC and LOIC, respectively) and curvature (parameters a_2 and a_4 for the LOC and LOIC). A congruence effect exists under the condition $a_1 = a_2 = a_3 = 0$ and $a_4 \le 0$ and when the ridge line of the surface aligns with the LOC (i.e., described by the parameter $a_5 = 0$; see Humberg et al., 2019, for statistical details). Note that the individual parameters cannot be meaningfully interpreted

in isolation, and "if any of the conditions is violated, a congruence hypothesis must be rejected" (Humberg et al., 2019, p. 416). For illustration, a prototypical congruence effect⁵ is displayed in Figure 1a. We computed the RSAs in R 4.1.1 (R Core Team, 2021) with the *RSA* package (Schönbrodt & Humberg, 2018) using the maximum likelihood estimator and bootstrapped (k = 5000) standard errors and 95% CIs.

2.3.5 | Power

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A power analysis (type = sensitivity, G*Power; Faul et al., 2009) showed that we could detect correlations ≥ 0.13 with 90% power and 5% type I error rate with the total sample and ≥ 0.25 for the smallest subgroup (family members). Our sample size met the requirements for

MI (Chen, 2007) and exceeded recommendations for identifying small effect sizes in RSA (N = 550; Barranti et al., 2017). The existence of observations of matches and mismatches⁶ is the prerequisite for RSAs; prechecks of our data showed that there was sufficient variation. Regarding the power of group comparisons, our samples allowed detecting small effect sizes $\eta^2 \ge 0.02$ with 92% power when analyzing three groups (type of acquaintanceship) and 87% for four groups (intensity of acquaintanceship) with 5% type I error rate in ANOVAs according to G*Power analyses. As noted, we used γ^2 difference omnibus tests for group differences in SOA correlations in latent analyses, which are well powered in samples $n \ge 600$ and allow detecting minor deviations between observed and expected covariance structures (e.g., Satorra & Saris, 1985).





FIGURE 1 Response surface models plots displaying (a) a perfect congruence effect and (b) the congruence effect for intellectual playfulness.

3 | RESULTS

3.1 | Preliminary analyses

Descriptive statistics for the self- and informant ratings are provided in Table 1 (for scale intercorrelations, see ESM B). The distribution of the scores and internal consistency coefficients (α and McDonald's ω) are comparable to prior findings from German-speaking samples (e.g., Brauer, Friedemann, et al., 2022; Proyer & Brauer, 2018). The playfulness scores did not deviate from the normal distribution (skewness $\leq |0.57|$, kurtosis $\leq |0.68|$).

In line with prior studies (e.g., Allik et al., 2016), relationship length and intensity of acquaintanceship intensity showed a comparatively minor association (r = 0.22, p < 0.001). Thus, suggesting the importance of examining whether acquaintanceship intensity relates to SOA separately from acquaintanceship length.

3.2 | Measurement invariance between self- and other reports of playfulness

MI analyses indicated scalar invariance between selfand informant reports for both the SMAP and OLIW models (see ESM C for fit coefficients and model comparisons). Hence, there were no differences between the latent measurement models of self- and other reports regarding the number of factors, the item-factor loadings, and the indicator intercepts. Accordingly, self- and other reports of playfulness can be meaningfully compared. The mean differences of self- and other reports were of minor effect sizes ($ds \le 0.29$; Table 1). When examining the mean differences separately for subgroups regarding the type of relationship and intensity of acquaintanceship (see ESM D and E for coefficients), two findings are noteworthy. Although the effect sizes were negligible or of minor size, they showed that self-reports exceeded informant reports. Also, we found a systematic

pattern of Lighthearted playfulness being rated lower by informants in comparisons to self-views across all groups ($d_{\text{median}} = 0.30$).

3.3 | Self-other agreement

Profiles

We found the expected strong correlations between normative profiles in the total sample (r = 0.93; Table 2). There was robust profile agreement for the OLIW facets ($r_{raw} = 0.50$), also after adjusting for normativeness and desirability ($r_{distinctive} = 0.37$, $ps \le 0.001$).

Facets

Our analysis of the SOA correlations of the manifest scores showed robust agreement for all types of playfulness in the total sample (trait wise SOA $rs \ge 0.40$, $ps \le 0.001$; ESM F) that align with earlier findings (e.g., Proyer, 2017; Proyer, Gander, et al., 2018). As in prior studies, the SOA for Intellectual playfulness was numerically lower in comparison to the remaining indicators of playfulness. The pattern of SOA replicated well in the latent analyses, albeit with higher SOA correlation coefficients (Table 3).

3.3.1 | Relationship length

Profiles

We correlated the acquaintanceship length with profile agreement indices and found that higher acquaintanceship related to greater SOA in raw profiles (r = 0.08, 95% CI [0.01, 0.16], p = 0.032), but did not find associations when controlling for stereotypes (distinctive profile SOA; r = 0.03, 95% CI [-0.04, 0.10], p = 0.478).

FABLE 1 Descriptive statistics and mean differences of sel	f- and informant reports in playfulness (Cohen's d)
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	Self-repor	ts			Informan	t reports	i			
	M	SD	α	ω	M	SD	α	ω	Cohen	ʻs d
SMAP	4.50	1.27	0.89	0.89	4.41	1.39	0.90	0.91	0.07	[-0.01, 0.15]
Other-directed	5.11	0.92	0.70	0.71	4.94	0.98	0.74	0.75	0.18	[0.11, 0.26]
Lighthearted	3.87	1.04	0.78	0.78	3.58	1.17	0.82	0.82	0.29	[0.21, 0.36]
Intellectual	4.18	0.87	0.67	0.68	4.01	0.83	0.63	0.65	0.19	[0.11, 0.26]
Whimsical	4.11	1.03	0.79	0.80	4.08	1.02	0.78	0.79	0.03	[-0.05, 0.11]

Note: N = 658. Cohen's *d* gives the effect size for mean differences between self- and informant reports (95% confidence intervals in brackets). Abbreviation: SMAP, Short Measure of Adult Playfulness.

		Intensity of a	oquaintanceship			Type of acqua	intanceship	
Profiles	Total (N = 658)	7 (<i>n</i> = 33)	8 (<i>n</i> = 135)	9 (<i>n</i> = 225)	10 $(n = 248)$	Friends (<i>n</i> = 179)	Family $(n = 164)$	Couples $(n = 31)$
Raw	0.50	0.35	0.47	0.51	0.53	0.47	0.48	0.52
	[0.48, 0.51]	[0.28, 0.41]	[0.42, 0.51]	[0.47, 0.53]	[0.50, 0.58]	[0.43, 0.50]	[0.45, 0.52]	[0.49, 0.55]
Distinctive	0.37	0.21	.33 ^a	.39 ^{ab}	.41 ^b	0.32	.38 ^c	.40 ^c
	[0.35, 0.40]	[0.13, 0.28]	[0.29, 0.38]	[0.35, 0.43]	[0.38, 0.44]	[0.27, 0.36]	[0.34, 0.42]	[0.37, 0.43]
Normative	0.93	0.87	0.93	0.91	0.94	0.96	0.90	0.90
	[0.83, 0.98]	[0.69, 0.96]	[0.83, 0.97]	[0.78, 0.97]	[0.85, 0.98]	[0.90, 0.99]	[0.76, 0.96]	[0.76, 0.97]

504

Facets

We computed RSAs and found no evidence of a congruence effect, except for Intellectual playfulness (plots and all coefficients are provided in ESM G). Thus, the conditions for a congruence effect were met only for Intellectual playfulness ($a_1 = -4.17$, p = 0.574; $a_2 = -7.49$, p = 0.282; $a_3 = 12.58$, p = 0.216; and $a_4 = -40.48$, p = 0.003; for the response surface plot, see Figure 1b), indicating that dyads who reported longer acquaintanceship length showed stronger agreement between self- and other reports.

3.3.2 | Intensity of acquaintanceship

Profiles

The inspection of the profile agreement coefficients showed a numerical increase in accuracy with greater acquaintanceship intensity (see Table 2). Using the manifest scores, we also considered the profile correlations for the 33 dyads who reported an intensity of "7." The distinctive profile agreement estimates showed an increase of $\Delta r = 0.12$, 0.06, and 0.02 per point in intensity of acquaintanceship.

Next, we computed an ANOVA to compare the profile correlations depending on the relationship intensity and found statistically significant differences (distinctive: $F_{3,637} = 5.95$, $\eta^2 = 0.03$; raw: $F_{3,637} = 6.18$, $\eta^2 = 0.03$, $ps \le 0.001$). Post-hoc tests showed that SOA in distinctive profiles differed between all intensity categories ($ps \le 0.033$; gs between 0.27 and 0.69 see ESM H for coefficients) except for a statistically nonsignificant minor effect size for the comparison between categories "8" and "9" ($M_{\text{diff}} = 0.06, 95\%$ CI = [-0.01, 0.13], SE = 0.04, p = 0.069; g = 0.20) and no robust differences in profile SOA between "9" and "10" ($M_{\text{diff}} = 0.02, 95\%$ CI = [-0.03, 0.08], SE = 0.03, p = 0.417). Thus, there were small effects supporting the notion that profile agreement is, on average, higher in dyads who reported greater acquaintanceship intensity.

Facets

We inspected the average SOA coefficients for the three groups of acquaintanceship intensity (see Table 3; "Intensity of Acquaintanceship"). The average SOA for all facets increased with greater relationship intensity, with increases of $\Delta M(r) = 0.06$ and 0.05 for each point increase in acquaintanceship intensity. Post-hoc comparisons between average SOA correlations showed no statistically significant differences between "8" and "9" (z = 0.87, p = 0.192) and "9" and "10" (z = 0.97, p = 0.166), but greater average SOA for those dyads characterized by an intensity of "10" compared to those who reported "8" ($\Delta M(r) = 0.11$, z = 1.72, p = 0.043).

When examining the single facets (Table 3), we found that groups only differed statistically significantly in SOA

		Intensity of acq	uaintanceship			Type of acquaint	anceship		
	Total (N= 658)	8 (<i>n</i> = 135)	9 (<i>n</i> = 225)	10 $(n = 248)$	$\nabla \chi^2$	Friends $(n = 179)$	Family $(n = 164)$	Couples $(n = 315)$	$\Delta \chi^2$
SMAP	0.60	0.58	0.58	0.64	1.56	0.56	0.52	0.66	5.25
	[0.54, 0.66]	[0.42, 0.71]	[0.48, 0.68]	[0.54, 0.73]		[0.43, 0.68]	[0.36, 0.66]	[0.58, 0.73]	
Other-directed	0.74	0.80	0.69	0.79	1.80	0.72	0.66	0.79	2.69
	[0.67, 0.82]	[0.67, 0.92]	[0.57, 0.81]	[0.67, 0.90]		[0.56, 0.85]	[0.51, 0.81]	[0.68, 0.90]	
Lighthearted	0.69	0.72	0.68	0.73	0.62	0.60	0.72	0.74	3.76
	[0.63, 0.75]	[0.59, 0.85]	[0.57, 0.79]	[0.63, 0.83]		[0.46, 0.74]	[0.59, 0.83]	[0.65, 0.81]	
Intellectual	0.51	0.32	0.62	0.59	4.90	0.41	0.58	0.55	0.74
	[0.42, 0.60]	[0.08, 0.55]	[0.49, 0.74]	[0.46, 0.72]		[0.21, 0.58]	[0.40, 0.75]	[0.42, 0.66]	
Whimsical	0.65	0.49	0.67	0.70	9.06*	0.52	0.58	0.76	3.21
	[0.58, 0.71]	[0.31, 0.65]	[0.55, 0.77]	[0.59, 0.80]		[0.38, 0.64]	[0.43, 0.71]	[0.67, 0.84]	
M(r)	0.64	0.58	0.64	0.69		0.56	0.61	0.70	
<i>Note</i> : Bootstrapped ($k = 5$, freedom comparing a satu * $p < 0.05$.	000 samples) 95% conf ırated model with SOA	fidence intervals repo A correlations freely e	rted in brackets. All SC stimated and a nested)A coefficients statistic model (invariant SOAs	ally significant (s across groups).	$p < 0.001$). $M_r = Aven$	rage correlation. $\Delta \chi^2 = \chi^2 d$	lifference test with two degree	s of

TABLE 3 Latent trait wise self-other agreement coefficients across the total sample and differentiated across subgroups concerning levels of self-reported intensity of acquaintanceship and type of relationship between target and judge.

on Whimsical playfulness ($\Delta \chi^2 = 9.60$, p = 0.011), showing a significant increase of 0.18 ("8" to "9", Wald = 4.95, p = 0.026) and 0.21 ("8" to "10", Wald = 8.93, p = 0.003), but no difference between "9" and "10" (Wald = 1.00, p = 0.318). In addition, we found a numerical trend of increasing SOA for Intellectual playfulness, with increases of 0.30 ("8" to "9") and 0.27 ("8" to "10"), but the χ^2 difference test did not indicate statistically significant group differences ($\Delta \chi^2 = 4.90$, p = 0.086).

3.3.3 | Type of relationship

Profiles

Our inspection of the distinctive profile agreement correlations (Table 2; "Type of Acquaintanceship") showed that friends yielded numerically lower agreement than family members ($\Delta r = 0.06$) and couples ($\Delta r = 0.08$), whereas family members and couples differed only slightly ($\Delta r =$ 0.02). An ANOVA comparing the profile correlations depending on the relationship type showed statistically significant differences between groups for distinctive profile agreement ($F_{2.655} = 4.89, \eta^2 = 0.02, p = 0.008$; raw: $F_{2.655} =$ 2.96, $\eta^2 = 0.01$, p = 0.053). Post-hoc tests showed that distinctive profile SOA differed between friends and couples $(M_{\text{diff}} = 0.10, 95\% \text{ CI} = [0.04, 0.16], SE = 0.03, p = 0.002;$ g = 0.29), whereas family members and friends ($M_{\text{diff}} =$ 0.07, 95% CI = [0.00, 0.14], SE = 0.04, p = 0.062; g = 0.20) differed with a minor effect size that did not reach statistical significance, and family members and couples showed negligible differences ($M_{diff} = 0.03, 95\%$ CI = [-0.03, 0.09], SE = 0.03, p = 0.348; g = 0.09).

Facets

When inspecting the average SOA coefficients (see Table 3; "Type of Acquaintanceship"), we found that friends yielded, on average, numerically lower SOA than family members ($\Delta r = 0.06$) and partners ($\Delta r = 0.12$). However, post-hoc comparisons showed that only friends and couples differed statistically significantly (z = 2.49, p = 0.006) in the mean SOA coefficients, whereas we did not find statistically significant differences between friends and family members (z = 0.70, p = 0.243), and family members and couples' SOA (z = 1.63, p = 0.051). In latent analyses of single facets, model comparisons did not indicate statistically significant differences between groups ($\Delta \chi^2 \le 5.25$, $ps \ge 0.072$).

4 | DISCUSSION

Our study aimed at extending the knowledge on the interpersonal perception of single facets and profiles of adult playfulness by investigating the acquaintanceship effect. We assessed acquaintanceship in terms of relationship length, types of relationship, and perceiver-reported intensity of acquaintanceship. In short, we found that the operationalization of acquaintanceship related to differential findings. For example, relationship duration did not relate to greater SOA for distinctive profiles and single facets of playfulness (except for Intellectual playfulness). On the other hand, friends were less accurate than family members and couples in distinctive profile agreement. Overall, our findings support the notion that playfulness can be easily observed in everyday interaction. To the best of our knowledge, this is the first study to examine invariance between self- and other reports of playfulness and the first to test the acquaintanceship effect with the RSA methodology (Humberg et al., 2019). The latter may encourage the use of this methodology beyond the study of playfulness.

In more detail, we found scalar invariance for selfand other reports (i.e., equal item-factor loadings and indicator intercepts). Hence, evaluations of individual differences in playfulness assessed with the multifaceted OLIW questionnaire (Proyer, 2017) are psychometrically and meaningfully comparable across self- and other perspectives. This is a particularly useful finding for future research on interpersonal perception of playfulness in adults that may use this questionnaire. A supplementary finding when examining mean differences was that selfreports of playfulness exceeded those reported by informants, particularly in Lighthearted playfulness. Although effect sizes were small, this might hint at self-other knowledge asymmetries such as targets' and observers' "blind spots" or systematic biases (e.g., desirability; Hofer et al., 2022; Vazire, 2010; Wood & Furr, 2016). Future research should evaluate this finding in more detail, for example, by testing how unique perspectives from self- and informant views contribute to predicting real-life outcomes (e.g., diary data of playfulness or attractiveness in shortand long-term relationships or behavior observations in standardized settings; Chick et al., 2020; Proyer, 2017).

Our assessment of trait wise SOA coefficients for the full sample was in line with earlier research in terms of effect sizes (e.g., Proyer, 2017; Proyer et al., 2020; Proyer, Brauer, et al., 2018). Our findings provided first evidence that target-judge agreement on playfulness extends from single facets to the full profiles of the OLIW facets, also after controlling for normativeness and desirability (Furr, 2008; Wood & Furr, 2016). Hence, variable- and person-centered analyses indicated that, on average, people judge fine-grained facets of playfulness accurately by means of the agreement between targets' self-reports and raters' judgments. Our study replicates and expands earlier research from trait wise to profile-based analyses of the accuracy of playfulness judgments. Future research on profiles will be helpful when thinking about practical applications; for example, the consideration of (dis-)similarity in playfulness may provide useful information for couples' counselors seeking to identify issues that affect the quality of the relationship between clients. For example, clients' dissimilarity in playfulness profiles could lead to tensions in their relationship (e.g., greater number of arguments). By considering playfulness profiles, counselors can gain insight into the ways in which playfulness may impact a couple's relationship and can tailor their interventions accordingly (e.g., by highlightening similarities and targeting joint activities accordingly, or by finding ways on how to capitalize on the dissimilarities in everyday life activities).

4.1 | The role of acquaintanceship for accurate judgments of playfulness

What is understood as acquaintanceship, and how it should be assessed, is ambiguous because of its heterogeneous operationalization (Wiedenroth & Leising, 2020). We assessed acquaintanceship with three frequently used indicators; namely, length of acquaintanceship, type of relationship (distinguishing between friends, family members, and partners; Watson et al., 2000), and self-reported intensity of acquaintanceship. As in prior research (e.g., Lee & Ashton, 2017), the acquaintanceship indicators showed minor correlations and findings based on those criteria were not redundant, which could speak to the notion that the criteria may tap into different domains of what acquaintanceship constitutes.

4.1.1 | Length of acquaintanceship

Our sample covered a broad range of relationship duration, comprising dyads who were acquainted between 1 month and more than 62 years. Response surface analyses (Humberg et al., 2019) showed that length of acquaintanceship was not substantially related to SOA, with one exception: the agreement between self- and other ratings for Intellectual playfulness was associated with longer acquaintanceship. This finding might be interpreted from the perspective of trait visibility, which argues that individual differences in internal experiences such as thinking and feeling, and traits that are less defined by observable behaviors, are more difficult to be accurately judged by others (e.g., Connelly & Ones, 2010; Connolly et al., 2007; Funder, 1995; Vazire, 2010; Watson et al., 2000). Prior studies (e.g., Proyer & Brauer, 2018; Proyer, Brauer, et al., 2018) and our present analysis of the total sample have shown that

Intellectual playfulness is characterized by the lowest SOA in comparison to the other playfulness facets. This could support the notion that Intellectual playfulness is less visible to others and covers internal processes (i.e., liking to play things through in one's mind, liking intellectual challenges, or preferring complexity in everyday life over simplicity; Proyer, 2017). Hence, one could argue that Intellectual playfulness is less visible in comparison to the remaining playfulness facets and elicits insufficient information in the short term, which is reflected in lower SOA but increases with acquaintanceship. This finding is consistent with recent research on the perception of intellectual abilities, indicating that partners were more capable judges of different facets of intelligence than less acquainted perceivers (Hofer et al., 2022).

It is unclear whether judges used directly observed behaviors for their judgments of Intellectual playfulness or if targets' reports (i.e., no direct observations) on how they approach tasks and problems intellectually in everyday and professional life provided information that was used for the judgments; one expectation is that judges will combine information from different sources. In line with earlier research on how personality manifests in socalled cues (e.g., Borkenau & Liebler, 1995; cf. Brunswik, 1956), linguistic analyses have shown that Intellectual playfulness is expressed by writing longer essays regarding personal self-descriptions and when writing about playful activities (Brauer et al., 2022b; Proyer & Brauer, 2018). Moreover, judges mostly correctly utilize such cues. Future research might examine how playfulness is expressed in social interactions and whether the existence and utilization of cues might contribute to higher SOA.

Taken together, we did not find evidence for the notion that SOA increases with acquaintanceship when it comes to the full profiles and the facets of Other-directed, Lighthearted, and Whimsical playfulness. There are at least two ways to interpret this finding: First, considering that playfulness can be comparatively accurately perceived even at zero acquaintance on basis of short selfdescriptions (i.e., SOA and interjudge agreement; Proyer & Brauer, 2018), one could argue that playfulness and its facets can be generally perceived well by others. According to Funder's (1995) notion of good traits, one might argue that playfulness and its facets of Other-directed, Lighthearted, and Whimsical are characterized by sufficient trait visibility that allows others to provide accurate judgments, even at short lengths of acquaintanceship. For example, the socially expressive nature of Other-directed playfulness (e.g., playful banter with others, coming up with well-received nicknames for others, or retelling joint experiences using different voices or acting out specific events) might allow others to infer expressions in this facet; similarly,

preferences for improvising over planning (Lighthearted) and liking people or activities that are considered unusual (Whimsical) might be well identified by perceivers. Our findings agree with Plato's adage on the perceptions of play, except that for intellectual types of playfulness conversation might be a better source of information.

Second, methodological reasons might play a role for not finding effects of acquaintanceship: Although our sample showed heterogeneity in acquaintanceship length, it is possible that we did not capture the initial phase of becoming acquainted that goes along with considerable increases in accuracy. For example, Kurtz and Sherker (2003) tested SOA for the Big Five traits among 103 roommates at 2 and 15 weeks of acquaintance and found a considerable increase of about 0.16 on average (up to 0.27 for single traits) during the initial acquaintance phase. Similarly, Paulhus and Bruce (1992) compared SOA for the Big Five among target-judge groups at zero acquaintance and after 7 weeks and found that during this time SOA increased, on average, from 0.21 to 0.30 (for replications, see Paulhus & Reynolds, 1995). In addition, research has supported the notion that exposure to information is particularly important when forming new impressions, but that accuracy reaches a plateau after a certain amount of time and information (Biesanz et al., 2007; Borkenau et al., 2004; Schneider et al., 2010; Wiedenroth & Leising, 2020). This is illustrated in Brown and Bernieri's (2017) study, which examined SOA for the Big Five traits among small groups who completed standardized assignments (among them, playing games) at three time points: at zero acquaintance, after a 5-minute getting-to-know-you conversation, and after 10 weeks. Their findings showed that SOA increased over time but also that observers made their most substantial revisions of personality judgments between zero acquaintance and after 5 minutes of conversation. This highlights the sensitivity of SOA to acquaintanceship at the very early stages of relationships. Because our sample was limited in that did not cover acquaintanceship durations in the low range (≤ 4 weeks), it is possible that important acquaintanceship effects for accurate judgments of playfulness have appeared during relationship formation and could not be discovered here. Longitudinal research testing fine-grained intervals (e.g., daily or weekly) during relationship formation is desirable to examine the acquaintanceship effect for playfulness during very early phases of relationship formation.

Considering that playfulness is a highly desired trait in the ideal partner, people prefer similarly playful partners, and playfulness supports relationship formation (e.g., Brauer et al., 2021; Chick et al., 2020; Proyer & Wagner, 2015), the role of accurate perceptions might be particularly important in early phases of romantic relationships. Future research could examine trajectories of the accuracy of judgments of playfulness over time, such as the level and change of accuracy, bias (e.g., idealizing others), and associations with outcomes (relationship dissolution and satisfaction). This would allow us to learn more about consequences of perceptions of adults' playfulness (cf. Drigotas, 2002; Lenhausen et al., 2021) and whether Plato was correct in assuming that even short exposures to observing others' inclinations to play provide sufficient information for accurate judgments.

4.1.2 | Intensity of acquaintanceship

Researchers have discussed that acquaintanceship might be primarily defined not by the time passed but by the closeness or intensity of acquaintanceship (Connelly & Ones, 2010). This is conventionally assessed by asking judges to rate on a scale how well they are acquainted with the target (Paunonen, 1989). As in prior studies that have used this approach (e.g., Allik et al., 2016; Lee & Ashton, 2017), the variance in acquaintanceship intensity was restricted because our sample comprised almost exclusively dyads who reported being well acquainted. Such variance restrictions prohibited the use of analytic techniques that treat intensity as continuous (RSA). In accordance with earlier studies that faced the same concern, we, thus, treated the intensity variable as categorical to analyze differences between groups differing in their intensity of acquaintanceship. As expected, and in line with earlier studies (e.g., Allik et al., 2016), group comparisons regarding distinctive profile agreement showed that higher intensity did go along with stronger agreement with small-to-medium effect sizes. Also, the mean SOAs for single facets showed an increase of about 0.06 per-point increase in self-reported acquaintanceship intensity, which is in line with expectations and comparable to other findings on acquaintanceship effects of broad and narrow traits (e.g., Allik et al., 2016; Lee & Ashton, 2017; Watson et al., 2000). However, when analyzing the single traits with multigroup latent analyses, we only found a statistically significant difference between groups that differed regarding the intensity of acquaintanceship for Whimsical playfulness. As discussed, one might argue that some facets of playfulness, such as Lighthearted, may be generally well observable and the SOA therefore irrespective of the perceived intensity of acquaintanceship. Taking findings on single traits and profiles together, it could be argued that some aspects of playfulness might be judged independently of degrees of acquaintanceship, whereas the accuracy of judgments of the full OLIW profiles slightly increases with greater acquaintanceship intensity. However, considering the variance restriction in

self-reported intensity of acquaintanceship, our findings should be interpreted cautiously and await replication and extension in longitudinal research.

On a side note, it is striking that our sample comprised almost exclusively dyads who self-reported to be well acquainted. Considering how well this finding replicates across independent studies (e.g., Allik et al., 2016; Lee & Ashton, 2017), one might question whether this is a feature of sampling, with participants recruiting familiar acquaintances more frequently than less acquainted ones, or if this reflects an evaluative component of the relationship, such as liking the target. The latter could indicate a response bias, whereby people generally tend to describe their intensity of acquaintanceship as high. Liking and knowing a target yield different effects on person perception; for example, liking relates to greater positivity bias, normative accuracy, and less distinctive accuracy, whereas knowing reduces bias and relates to greater normative and distinctive accuracy (Wessels et al., 2020). Therefore, future research should examine how well self-reports of intensity of acquaintanceship can be discriminated from judgments of liking and knowing a target to clarify the utility of the acquaintanceship intensity criterion in research on acquaintanceship effects of person perception.

4.1.3 | Type of relationship

Finally, we compared the SOA between dyads who differed in their type of relationship, in accordance with the classical paradigm of acquaintanceship research (e.g., Connelly & Ones, 2010; Connolly et al., 2007; Watson et al., 2000). As expected, all dyads reached high SOA. Profile analyses showed that friends relied more on stereotypes (normative agreement) and showed less distinctive agreement in comparison to family members and partners. Similarly, we found a small, but statistically nonsignificant, effect showing that family members were slightly less accurate than couples, which awaits replication. Overall, the findings on profile agreement showed the expected minor effect sizes as reported in research on broad traits (e.g., Allik et al., 2016). Our analysis of the average SOAs for single facets echoed these findings: On average, friends yielded substantially lower agreement than couples (25% less accurate) and descriptively lower agreement than family members. Again, latent analyses did not show effects of relationship type on SOA of single facets.

Our findings are in line with the literature and consistent with our expectations for the small magnitude and direction of acquaintanceship effects (e.g., Connelly & Ones, 2010; Watson et al., 2000). However, we must note that the differences in SOA between friends, family members, and partners were not statistically significant in trait wise analyses and differences in distinctive profile agreement were of small size. Nevertheless, the group comparisons could suggest practical relevance because our findings converge with the literature on acquaintanceship effects (e.g., Connelly & Ones, 2010) and indicate that close others, such as family members and particularly romantic partners, might have, on average, greater access to information that allows for accurate judgments of (facets of) playfulness. Although playfulness might be expressed in any context (e.g., at work; Scharp et al., 2021), using playfulness to engage and (re)frame one's social life, particularly in romantic relationships, might be especially important (Brauer et al., 2021; Proyer, 2012a, 2014; Proyer & Jehle, 2013). Our findings could be interpreted as providing continuing support for the notion that romantic relationships are a particular "playground" for adults that allow for the expression of playfulness in a broad range of situations and contexts. Being part of a relationship could provide information about playfulness that is less available in everyday life to friends and family members. For example, research has suggested that BDSM preferences can be a form of intimate role play and may represent an expression of playfulness in the sexual domain (Turley et al., 2017). Such findings highlight the potential relevance of playfulness to aspects of romantic and sexual relationships. Recently, Brauer, Friedemann, et al. (2022) provided initial evidence that playfulness, especially the Intellectual and Whimsical types, predicts BDSM preferences with medium to large effect sizes. Observations from intimate situations such as those might enable partners to gain more insights into situations that allow targets to express, and judges to observe, (non)playful attitudes and behaviors.

4.2 | Limitations and implications for future research

It is important to acknowledge that our study has several limitations. First, there is no clear consensus on how acquaintanceship should be defined and assessed, and the degree to which acquaintanceship is reflected by such indicators is unclear. Our findings on self-reported intensity of acquaintanceship should be interpreted cautiously because our sample indicated only high intensity ratings. Second, we examined only between-dyad comparisons; further research is needed to examine longitudinal acquaintanceship effects within dyads over time (Brauer et al., 2022a; Kenny, 2020; Lenhausen et al., 2021). Third, we used the standard dyadic design (Kenny, 2020; i.e., no reciprocal ratings of dyad members). Hence, we could not examine whether judges' expressions in playfulness contribute to accuracy. The latter might regard heuristics and biases such as assumed similarity (Kenny, 2020; Kurtz & Sherker, 2003). Fourth, we have relied on SOA as an indicator of accuracy

(Funder & West, 1993), but alternative criteria, such as interjudge agreement, associations with behavioral criteria (e.g., diary data; Proyer, 2017), and testing judges' sensitivity to changes of targets' playfulness (e.g., by deliberate interventions; Proyer et al., 2021) could extend the findings to other sources of data and types of accuracy. Fifth, we tested only German-speaking participants, which limits the generalizability of our findings. Replications in other cultures, where playfulness might be differently expressed (e.g., Barnett, 2017), are needed to learn more about the invariance, accuracy, and acquaintanceship effects of self- and other ratings of adult playfulness outside of German-speaking countries. Sixth, a more fine-grained differentiation among couples (e.g., co-habiting, married, and long-distance relationships), family relationships (e.g., parents, siblings, and cousins), and friends (e.g., with regard to context) would be beneficial to learn more about the role of acquaintanceship in playfulness judgments because it can be questioned whether our three broad groups are homogenous. For example, parents, siblings, and cousins might have completely different knowledge about a person's playfulness due to the exposure and context of observations. However, we relied on broad categories of relationship types frequently used in acquaintanceship research (e.g., Connelly & Ones, 2010; Watson et al., 2000). Finally, personality judgments are composed of "substance" (targets' true trait expressions) and "evaluation" (targets' and perceivers' perceptions of a trait's desirability, perceivers' attitudes toward targets, and evaluative tone of items; Leising et al., 2015). Accordingly, SOA is not only affected by agreement regarding expressions of a trait but also by evaluations such as trait desirability. Because playfulness is a desirable trait (e.g., Chick et al., 2020), it can be assumed that evaluative components affect judgments of playfulness and SOA. This is evident from our profile analyses, where controlling for normativeness and desirability by using distinctive profiles (Wood & Furr, 2016) led to a decrease in agreement in comparison to raw profile agreement. Thus, while our profile-based approach considered evaluative components, we cannot determine the extent to which trait wise agreement was affected by evaluations. It is desirable that future research extends the knowledge on the desirability of items of the OLIW and SMAP questionnaires (Proyer, 2012b, 2017) to estimate the role of desirability for responses and agreement between self- and other reports. For example, by collecting data on the desirability and evaluation of the items used to assess playfulness (cf. Wessels et al., 2020).

5 | CONCLUSION

Our findings support the notion that self- and other reports of adult playfulness are comparable and overlap well without being redundant. The latter suggests that targets and informants might refer to different sources of information and utilize information differently for their inferences (Vazire, 2010). From a psychometric point of view, this encourages continuing to supplement selfreports of playfulness by those of knowledgeable others to derive an approximatively good estimate of targets' playfulness (e.g., Proyer, Brauer, et al., 2018; cf. Kolar et al., 1996; Vazire, 2010). Here, two strategies might be of interest. First, our findings encourage Hofstee's (1994) approach of aggregating self- and other ratings to derive a good approximation of the trait under investigation (i.e., testing how self-informant aggregates relate to outcomes). Secondly, other ratings can be used in addition to self-reports to provide incremental validity when predicting outcomes (e.g., Luan et al., 2019; Proyer, Gander, et al., 2018). Taking the role of adult playfulness in interpersonal relationships into account, one can argue that accurate impressions of playfulness might be useful for a wide range of social contexts (e.g., romantic interest, assortative mating preferences, or willingness to cooperate).

We found mixed results for the acquaintanceship effect concerning judgments of playfulness, depending on how acquaintanceship is assessed. Initial evidence shows that Intellectual playfulness is perceived more accurately with greater acquaintanceship length, but SOA for the remaining facets and profiles were unrelated to duration. The comparison of friends, family members, and partners showed a trend indicating that friends provide less accurate judgments than partners and family members. Results about how well dyads are acquainted warrant interpretation because our sample was homogeneous regarding self-reported intensity of acquaintanceship. Overall, the magnitude and direction of effects were in line with the literature, indicating that some aspects of acquaintanceship can contribute to accurate judgments of playfulness.

AUTHOR CONTRIBUTIONS

Study conceptualization: KB; Data collection: KB, RS, and RTP; Data preparation: KB and RS; Data analysis: KB and RS; Report writing: KB, RS, and RTP.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

All data and materials are openly available in the Open Science Framework under https://osf.io/er6bp/.

ETHICS STATEMENT

The present research was conducted in accordance with the ethical guidelines of the German Psychological Association (Deutsche Gesellschaft für Psychologie).

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ENDNOTES

- ¹ Although SOA and consensus are most frequently employed in accuracy research (Connelly & Ones, 2010), one is particularly interested in accuracy in terms of testing whether other ratings relate to objective criteria (e.g., behaviors, performance tests, or aggregates of other ratings). For the playfulness measures we use in this study, self- and other ratings are robustly related to targets' diary data (averaged across 14 days) of playfulness and aggregates of peer ratings (Brauer et al., 2023; Proyer, 2017).
- ² The coefficients were computed for an average single observer because computing SOA based on aggregates by multiple raters inflates the SOA.
- ³ Data on the length and type of relationships were obtained from the informants.
- ⁴ Contrary to the latent analyses, we also included the data of the 33 dyads characterized by an intensity rating of "7" (n = 641 dyads) because the profile analyses are based on correlations of targets' and informants' responses to the 28 manifest indicators of the OLIW questionnaire and do not require complex latent analyses.
- ⁵ Note that RSA does not additionally consider the direction of incongruence (i.e., if self-ratings > informant ratings and vice versa).
- ⁶ Mathematically, mismatches are defined as a difference of 0.5 *SD* in predictor pairs (i.e., x exceeds y by 0.5 *SD* and vice versa; Edwards, 2001).

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