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Playfulness and humor in psychology: An overview and update

https://doi.org/10.1515/humor-2016-0080

Abstract: The main aim of this overview is to discuss theoretical work and empirical studies on the proposed association between humor and playfulness. Starting point is McGhee's (1996, *Health, healing and the amuse system: Humor as survival training.* Dubuque, IA: Kendall/Hunt; 1999, *The laughter remedy: Health, healing and the amuse system.* Dubuque, IA: Kendall/Hunt) notion that humor is a variant of play – the play with ideas. Research on play and playfulness is discussed in light of this proposition and an updated definition of playfulness as a personality trait in adults is presented. The latter differentiates among four facets; namely, Other-directed, Lighthearted, Intellectual, and Whimsical. One methodological problem is highlighted in particular: Items such as "I have a good sense of humor" are to be found in both, measures for the sense of humor and playfulness and sometimes used as both predictor and criterion in the same analysis. Overall, there is evidence that the proposed overlap between humor and playfulness exists, but that it does not indicate redundancy. Avenues for future research are presented.

Keywords: adult playfulness, play, playfulness, positive psychology, seriousness

Paul McGhee (1996; 1999) has argued that humor is a special variant of play, namely, the play with ideas. In his model, playfulness is the basis for the *sense of humor*, which consists of six hierarchically ordered facets. Details on this model and its measurement are to be found in Ruch and Heintz (2018, this issue). For the study of playfulness, McGhee's assertion that while growing up, (for developmental processes see McGhee 1979) adults become "terminally serious" and "humor impaired" seems important, as does his hopefulness: "[...] while many adults lose this quality [*to play with ideas*] as they go through adulthood, it's not too late to get it back" (McGhee 2010a; p. 7). Among the proposed strategies for achieving this he suggests cultivating a playful attitude

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and playing with language (McGhee 2010a, b). Play (the actual behavior) and playfulness (the personality disposition) are well studied in psychology from a developmental perspective in infants and children, but comparatively less research has been conducted with adults. One might even argue that research also suffers from terminal seriousness and has tended to ignore the observation that adults like to play and be playful too and that "[...] unlike most other animals, humans continue to play throughout their lives, most notably through humor" (Martin 2007; p. 6). The main aim of this contribution is to provide an overview on empirical research on the relationship between humor and playfulness and to give an update on current conceptualizations of playfulness in adults.

From very early on it has been argued that play is an intrinsically motivated type of behavior; it deals with activities "[...] which are not consciously performed for the sake of any result beyond themselves; activities which are enjoyable in their own execution without reference to ulterior purpose" (Dewey 1913; p. 725). Theoretical and empirical work from developmental psychology has underlined the importance of play in children and adults. Erikson's work (see e.g., Erikson 1959) can serve as an example for this notion. He argues for a play stage in human development; this would be after the early childhood stage (his second stage that is aimed at achieving autonomy - with will as its basic strength) and would precede the stage of school age (that is aimed at developing industriousness – with competence as its basic strength). The play age can foster initiative (its "psychosocial crisis" is the conflict between initiative and guilt) and the basic strength associated with this age is purpose - with inhibition being the core-pathology of this age. Erikson suggests that at this stage, play in children transforms from playing only for oneself to playing with a world shared with others (Erikson 1959). This is accompanied with a sense of mastery – not only with respect to toys and things, but also mastery of (new) experiences. He further argues that some adults (those with higher vitality and potentially also higher playfulness) have greater resources from childhood that make it easier for them to access a second reality aside from their adult life; they access their childhood world that is associated with play and imagination. In as early as 1977, Lieberman suggested that playfulness permeates into adulthood and is of relevance there as well; she argues about playfulness in adults: "By this I mean the lightheartedness that we find as a quality of play in the young child's activities and, later on, as the combinatorial play essential to imagination and creativity" (Lieberman 1977; p. xi) and later she notes "[...] playfulness as a quality of play would developmentally transform itself into a personality trait of the player in adolescence and adulthood" (Lieberman 1977, p. 23). Lieberman further posits that playfulness is composed of (a) spontaneity (social, physical,

and cognitive); (b) *manifest joy* (laughter, pleasure, and preference); and (c) *sense of humor* (divided into affect, joking, entertaining, and cognition, wit, and punning). Measures developed for the assessment of these components show strong overlap (e.g., coefficients \geq 0.63 in Barnett 1990; N = 388 children). There are many other examples where researchers in play and playfulness study humor as one form of playfulness (e.g., Guitard et al. 2005; Mannell and McMahon 1982; Schaefer and Greenberg 1997). Others have focused on a more state-oriented conceptualization such as Raskin's (e.g., 1998) conceptualization of playfulness as "being ready to switch modes of communication at ease" (p. 108) as indicative for greater expressions in the sense of humor or Apter and Smith's (1977) differentiation between *telic* (goal-oriented) vs. *paratelic* (non goal-oriented; playful) states.

Peterson and Seligman (2004) use humor and playfulness synonymously in their classification of twenty-four strengths of character (i.e., morally positively valued traits) and six hierarchically higher ordered virtues. They argue that the virtues are expressed through the strengths of character and assign the strength of humor (i.e., liking to laugh and joke; bringing smiles to other people) to the virtue of transcendence. Here, Plato's notion of educating young people toward playfulness for enabling them to become philosophic adults comes to mind (Shelley 2003). Thus far, most of the research on character strength has been conducted using the Values-in-Action Inventory of Strengths (VIA-IS; see Peterson and Seligman 2004). Referring to the items of their humor scale, only one out of ten (in the adult version) has a direct association with play or playfulness (i.e., seeing life more as a playground than a battlefield). Thus, research generated with this scale seems more indicative of humor as a strength than of playfulness in its narrow sense (in empirical work it can be shown that correlational patterns are similar to what has been found for sense of humor and socially warm types of humor; Müller and Ruch 2011). Nevertheless, it is interesting to note that a conceptualization of playfulness exists which also categorizes playfulness as a morally valued trait.

It should be mentioned that the assessment of adult playfulness frequently relies on item contents involving humor or laughter. Proyer and Jehle (2013) have analyzed 17 measures of adult playfulness and one fifth of the items used were variations of *having a good sense of humor, being humorous*, or *liking to laugh/making other people laugh*. As a consequence, the study of the potential overlap between humor and playfulness is hindered by an overlap in the item contents used for assessing both (i.e., "having a good sense of humor" is used as an indicator of playfulness *and* humor), but also by low distinctiveness of the items with broader personality traits (Proyer 2015; Proyer 2017; Proyer and Jehle 2013).

Expanding the study of adult playfulness

The currently most frequently used definition of playfulness in adults has been proposed by Barnett (2007): "[...] the predisposition to frame (or reframe) a situation in such a way as to provide oneself (and possibly others) with amusement, humor, and/or entertainment. Individuals who have such a heightened predisposition are typically funny, humorous, spontaneous, unpredictable, impulsive, active, energetic, adventurous, sociable, outgoing, cheerful, and happy, and are likely to manifest playful behavior by joking, teasing, clowning, and acting silly" (p. 955). The strong association with humor and humorous behavior is evident here as is the idea that playfulness is associated with the experience of amusement and/or entertainment. Recently attempts have been made to expand the study of adult playfulness. Most importantly, it has been argued that playfulness may not only foster the experience of entertainment, but may also have other functions in daily life and may be associated with emotional experiences of, for example, interest (see Proyer 2015; Proyer 2017) especially, when considering intellectual types of playfulness. However, a full exploration of the association between playfulness and the elicitation of different types of positive emotions (see e.g., Ekman 2003) is still missing and areas such as sensory pleasures (i.e., tactile, olfactory, auditory, visual, and gustatory in Ekman's classification) are particularly understudied. Furthermore, research in the field of intimate relationships, friendships, or associations with intellectual achievements, or academic success, to name but a few, is also underrepresented.

Overall, one might argue that many current conceptualizations of playfulness focus on a fun, amusement, and/or relaxation component, while other areas are not well-represented. To illustrate this further Proyer (2014b) has shown that adults, if asked how they use their playfulness in their daily lives, list uses that could be summarized under the broader category of humor and laughter (e.g., to have fun/be cheerful; to make others laugh; to fool around with others; or to entertain others; etc.), but also mentioned functions in other categories independently from humor; namely, (a) well-being (e.g., to be happy/increase one's well-being; to feel good; or to experience pleasure; etc.); (b) mastery orientation (e.g., to motivate others/myself; to be active; or to master challenges; etc.); (c) creativity (e.g., to spend one's time in a more interesting way; to create new things; to pursue one's hobbies; or to experience variety); (d) relationships (e.g., to cultivate relationships; to communicate with others; to socialize; or to make oneself popular); (e) coping-self (e.g., to unwind; to relax; to recharge; or to cope with stress); and (f) coping-situation (to loosen up a situation). This study on people's implicit beliefs about functions of playfulness has uncovered a broad range of uses for playfulness in daily life. Clearly, facilitating humor and laughter was one of these, but not the only one.

The observation that current definitions may be too narrow for covering adult playfulness in its full range has led to the proposal for a refined definition:

"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 worktype 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" (Prover 2017; p. 114).

One might argue that this shows a development in the field in the sense of a broadening of the understanding of playfulness as not only facilitating entertainment, but also other outcomes (e.g., highlighting its social and intellectual components). Of course, more parsimonious definitions (e.g., seeing playfulness as the predisposition to play) are favorable in some respect (e.g., tying the trait to the particular type of behavior), but more elaborate definitions have the advantage of allowing the testing of specific hypotheses and providing a clearer description of the trait.

When studying playfulness, the question arises as to what its structure is. McGhee (1996; 1999) argues for a single dimension. This is supported by other authors such as Murray (1938) who proposes a list of basic human needs with the need for play being one of them (i.e., "[...] To relax, amuse oneself, seek diversion and entertainment. To 'have fun,' to play games. To laugh, joke and be merry. To avoid serious tension"; p. 83). Other authors favor a bipolar dimension such as Smith and Apter (1975) who differentiate between telic vs. paratelic states (the first being characterized by goal-orientation and the latter by playfulness). Nevertheless, there is also work aimed at studying the structure of playfulness in more detail. A full overview is beyond the scope of this contribution (see Proyer 2015; Proyer 2017), but some examples will be given. For example, Barnett (2007) used focus groups of young adults and suggests a four-facetted model; namely, (a) gregarious; (b) uninhibited; (c) comedic; and (d) dynamic. Glynn and Webster (1992) started from the notion of seeing play as the opposite of work (which is debatable; see e.g., Barnett 2007; Csikszentmihalyi 1975) and have used the semantic differential plus other items to arrive at a five-factor solution; namely, (a) spontaneous; (b) creative; (c) silly; (d) expressive; and (e) fun. Proyer (2012b; 2014a) used hierarchical factor analyses on data derived from a linguistic corpus analysis of the German language. The idea was that an analysis of a text corpus reveals the basic factors that describe the implicit psychological and linguistic theories underlying playfulness. While a first study favored a seven-factor solution, a replication and extension of the initial study (Proyer 2014a) found the best fit for a more parsimonious five-factor solution that encompassed the earlier solution; namely, (a) cheerful-engaged; (b) whimsical; (c) creative-loving; (d) intellectual; and (e) impulsive. It was also shown that the cheerful-engaged factor demonstrated strong overlap with a measure for the sense of humor and its facets (McGhee 1996).

Proyer (2015; 2017) has proposed a new structural model that is based on a multi-methodical approach (e.g., psycho-linguistic studies, a qualitative analysis of lay persons' perceptions of playfulness, or factor-analytic studies). It comprises four basic facets; namely, (a) Other-directed (e.g., enjoying playful interactions with others; being able to use one's playfulness to loosen up tense situations with others); (b) Lighthearted (e.g., seeing life as a game and not worrying too much about future consequences of one's own behavior; liking to improvise; reserving time in the daily routine for play); (c) Intellectual (e.g., liking to play with ideas and thoughts; liking to think about and solving problems); and (d) Whimsical (e.g., finding something amusing in grotesque and strange situations; having the reputation of liking odd things or activities). There is a 28-item questionnaire for the subjective assessment of these four dimensions (the OLIW) with good psychometric properties and encouraging support for its validity (Proyer 2017). One of the aims in the development of the OLIW was to reduce the overlap with broader personality traits and to focus more on the core of playfulness rather than testing potential consequences (e.g., experiencing positive emotions, feeling cheerful and/or happy, etc.). The OLIW provides a score for the four single facets, but no total score. For the assessment of global playfulness other measures are favorable (e.g., Proyer 2012a).

Studies on the association between humor and playfulness

As mentioned, a broad range of conceptualizations exist, but some studies provide a direct test of the relationship between (facets of) playfulness and (facets of) humor. This section gives a selected overview on these studies and their main findings. Ruch and Köhler (1998) tested the association of the temperamental basis of the sense of humor with the need for play-scale of the

Personality Research Form (PRF; Jackson 1984). The latter was robustly positively associated with cheerfulness (r = 0.59, p < 0.001), and negatively with seriousness (r = -0.48) and bad mood (r = -0.29; all p < 0.01; N = 100). Ruch and Köhler state: "Thus, playfulness – as measured by the PRF – is not simply the opposite of seriousness. The need for play is most characteristic for the unserious among the cheerful individuals" (p. 230). These findings have been replicated later in a study using the Short Measure of Adult Playfulness (SMAP; Proyer 2012a) that assesses an easy onset and high intensity of playful experiences along with the frequent display of playful activities. Again, there was a positive association with cheerfulness (r = 0.49) and negative associations with seriousness (r = -0.39) and bad mood (r = -0.28; all p < 0.001, N = 238; Prover and Rodden 2013). The need for play is also associated with a liking of nonsense and sexual humor (Ruch and Hehl 1993).

Ruch and Heintz (2013) tested the association of the SMAP with three different variants of the Humor Styles Questionnaire (HSQ; Martin et al. 2003). Using the standard form of the HSQ, playfulness was positively associated with an affiliative (r = 0.52) and self-enhancing (r = 0.40, all p < 0.001; N = 164) humor style (see also Miczo et al. 2009; Yue et al. 2016), while being unrelated to the aggressive (r = 0.08) and self-defeating (r = 0.06; n.s.) humor style. In a variant of the HSQ that assesses only the non-humorous context inherent in the scales there was a positive association with affiliative contents (r = 0.36, p < 0.001), while other associations were smaller in size (r = 0.21 for self-enhancing, 0.12 for aggressive, and 0.04 for self-defeating contents; all n.s.). Finally, in a variant that focuses on the *humorous* aspects only, while leaving context variables out, all four styles covered in the HSQ were positively associated with playfulness; namely, r = 0.53 for affiliative, 0.52 for self-enhancing, 0.28 for aggressive, and 0.38 for self-defeating (all p < 0.001). Hence, the notion that a playful frame of mind is a precondition for humor to occur received support in the third variant only (i.e., with reduced context information).

While reservations have been expressed concerning the humor/playfulness scale of the VIA-IS (Peterson and Seligman 2004) with respect to the degree that it covers playfulness (see also Müller and Ruch 2011), some of the findings generated with this scale in comparison with playfulness measures will be highlighted. Prover and Ruch (2011) found a positive association (r = 0.41, p < 0.01; N = 261) with the SMAP (Proyer 2012a). The authors also administered Glynn and Webster's Adult Playfulness Scale (1992). This scale is frequently used, but has been criticized for a broad range of reasons (e.g., its theoretical background, or psychometrics; e.g., Barnett 2007; Proyer 2015; Proyer 2017). Keeping this criticism in mind, the interpretation of the multiple squared correlation coefficient between the five APS scales and the VIA-scale seems more advisable than the discussion of the single dimensions; the R^2 was 0.30 indicating-in line with findings for the SMAP-an overlap, but no redundancy. A regression analysis with playfulness (as measured with the SMAP) as criterion and the twenty-four strengths covered in the VIA-IS (plus age and gender) as predictors revealed a multiple squared correlation coefficient of $R^2 = 0.29$. As expected, the strength of humor emerged as the numerically strongest predictor (17% incremental validity), but also the strengths of appreciation of beauty and excellence, (low) prudence, creativity, and teamwork were predictive - this means that humor was the most important, but not the only predictor. This fits well to other research in this realm; for example, the item "Finds intellectual word play enjoyable" (Craik et al. 1996) demonstrates a strong assignment to the virtue of "Wisdom" (Beermann and Ruch 2011). The humor/playfulness scale of the VIA-IS has also been used in Ruch and Heintz (2018) who found a strong overlap with the total score of the Sense of Humor Scale (SHS; McGhee 1999; no data for the facets were reported; i.e., r = 0.74, p < 0.001). Furthermore, the VIA-IS scale reflects benevolent (r = 0.50), rather than corrective humor (r = 0.23, all p < 0.001), or mockery (r = 0.15, p < 0.01) and primarily socially warm (r = 0.59; all p < 0.0001) and competent (r = 0.27; p < 0.01) humorous behaviors (Müller and Ruch 2011).

Müller and Ruch (2011) found a positive correlation between the *playful attitude* as assessed with McGhee's (1999) *Sense of Humor Scale* (SHS) and the humor scale of the VIA-IS (r=0.52, p<0.001; N=199–203). They also tested the association of the latter with the *Humorous Behaviors Q-Sort Deck* (Craik et al. 1996), which was developed to represent a comprehensive set of every-day humorous behaviors. The playful attitude was numerically most strongly associated with: Socially warm (r=0.44, p<0.001), competent (r=0.23, p<0.01), and benign humor (r=0.15, p<05). The HBQD shared about 32% of the variance with the playful attitude as measured with the SHS. Finally, hitherto unpublished data for the OLIW (Proyer 2017) will be reported. A sample of 477 adults (162 men, 315 women; M=37.2, SD=15.1; between 18 and 78) completed scales for *benevolent* (i.e., benevolent treatment of imperfections) and *corrective humor* (i.e., morale-based ridicule; Ruch and Heintz 2016; see Table 1).

The table shows that all facets of the OLIW were positively correlated with *benevolent* humor (38% shared variance). Whimsical playfulness was also associated with *corrective* humor; the correlation coefficients for the other OLIW facets were numerically smaller (17% shared variance in total). Benevolent and corrective humor shared between 18 and 31% variance with the single facets of the OLIW. Hence, playfulness also seems to be associated with virtue-related humor contents (cf. Proyer and Ruch 2011), mainly with dealing benevolently with the observation of human imperfections and weaknesses.

Table 1: The relationship between benevolent and corrective humor and	
adult playfulness (controlled for age and gender).	

	Other- directed	Lighthearted	Intellectual	Whimsical	R ²
Benevolent	0.48	0.41	0.47	0.32	0.38
Corrective	0.22	0.12	0.17	0.33	0.17
R^2	0.27	0.19	0.31	0.18	-

Note: N = 477. All bivariate correlation coefficients p < 0.001.

Conclusion

Overall, there is support for McGhee's (1996; 1999) notion that humor is a special variant of play. Especially, those studies that aim at separating humor from context-related content (e.g., Ruch and Heintz 2013) show a robust overlap without indicating redundancy. There are differences with respect to the degree of this overlap. It is further evident that the study of playfulness suffers from the usage of inadequate measures and/or in some cases also from questionable or non-existing theoretical foundations. If seeing, for example, (the sense of) humor as predictor and criterion in the same analysis further advancement is hindered

The analyses presented in this contribution also show that there is no full overlap but rather that there are specific components to both humor and playfulness. The question remains as to whether forms of humor may exist that require no playfulness - neither from the person producing humor nor from the person being on the receiving end. People can be playful without being humorous (e.g., when pursuing creative processes, in artistic endeavors, or when being with one's romantic partner - and, of course, also when pursuing "serious" work such as analyzing data or having to solve challenging tasks). Hence, it is important to keep in mind that: "While playfulness is seen to form the basis for the sense of humor, it is not a quality specific to humor" (Ruch and Carrell 1998; p. 553). Furthermore, while humor induces amusement (see e.g., Ruch 2009), playfulness may also be associated with other types of emotional reactions (e.g., interest, or pride), or other experiences (e.g., increased involvement in an activity) and this would add further to the distinction of the two variables. For example, intellectual playfulness (e.g., the liking of problem solving, playing with different ideas; having a preference for complexity over simplicity) must not necessarily or predominantly be associated with joy, but may be more directly associated with other types of emotions. There is also strong evidence that playfulness helps boredom from occurring (Barnett 2011) and, more generally speaking, playfulness may be helpful to frame or reframe situations or experiences in ways that they are perceived as being more interesting for the individual. This would make it easier to cope with repetitive tasks (e.g., non-challenging routine tasks at work) or to perform better when interest in the respective area is low. The latter may be relevant, for example, for students who have to prepare materials for areas in which they have comparatively low interest or for employees at the workplace who have to work in an area of comparatively low personal interest

More research is needed that also considers hitherto less well-studied areas such as testing the association of playfulness with performance tests of humor. This will also enable a better understanding on whether the quantity and/or the quality of the humor production varies in relation with interindividual differences in playfulness. While many single studies have been presented in the selected overview, an evaluation involving the full range of humor measures and indicators of play and playfulness is missing. Furthermore, more experiments testing whether a training of playfulness has an impact on humor will be helpful in further unraveling their complicated relationship (see McGhee 2010a; Ruch and McGhee 2014).

Acknowledgements: The author is grateful to Dr Frank A. Rodden for proofreading the manuscript.

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Bionote

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