



# A behavioral test of Horney's linkage between authenticity and aggression: People living authentically are less-likely to respond aggressively in unfair situations

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## ABSTRACT

This study links Horney's account of human growth and neurosis to authenticity by examining aggressive responses on the point subtraction aggressive paradigm, providing the first empirical test of whether authenticity can predict objective behavior. Data from undergraduate, postgraduate, and mature students demonstrate that when controlling for age, gender, trait-anger, agreeableness, and functional dimensions of coping, individuals who measure high on authentic-living respond less aggressively to attacks and counter-attacks in unfair situations. Authentic-living uniquely accounted for 14.2% of variance in aggressive-responses ( $r = -.37$ ). The findings suggest that inauthenticity is a strong predictor of aggressive behavior, and therefore increasing levels of authenticity in counseling practice may reduce maladaptive levels of anger. We suggest future exploration between authenticity and models of emotional regulation will unearth the cause and effects of aggression within inauthentic individuals.

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## 1. Introduction

Authenticity is a key focus of counseling perspectives (Lopez & Rice, 2006), including clinical (Ehlers, Maercker, & Boos, 2000; Joseph & Linley, 2005), humanistic/psychodynamic (Horney, 1951; Rogers, 1959), and existential approaches (Yalom, 1980). Recently, Wood, Linley, Maltby, Baliouis, and Joseph (2008) developed the Authenticity Scale to operationalize a three factor conceptualization of authenticity to encompass varying definitions accepted by various perspectives of authenticity. The first factor; self-alienation, describes lacking a sense of identity through the subjective feeling of not knowing oneself. The second factor; accepting external influences, involves the beliefs that one must conform to the expectations of others. The final factor; authentic-living, involves behaving in ways that are consistent with one's own values and beliefs. Authentic-living reflects feeling of authenticity, whereas self-alienation and accepting external influences reflect inauthenticity. Authentic-living theoretically reflects behaviors in the real world; however no previous research has shown that authentic-living relates to any objective behavioral outcomes. One area in which

authentic-living may be particularly important regards the prediction of aggressive behavior.

Horney's (1951, 1977) theoretical accounts suggest that authenticity is achieved by evaluating oneself against others. Horney argues that healthy personality development occurs if individuals can accept their own short-comings, feelings, and thoughts. Failing which, they create idealized selves and develop compulsions to meet these idealized selves such as neurotic needs to be successful, independent and always experience fair treatment. These ideal images lead to alienation from the self and sufferings of self-hate or contempt. These negative feelings call for self-preserving behavior, often seen as manifestations of angry, aggressive attitudes and behaviors towards others. Horney suggests that individuals low in authenticity are sensitive to threats or "cannot afford to consider even remotely anything that might engender a doubt in his rightness" (Horney, 1951, p. 208). Threats or perceived unfairness are interpreted as hostile attacks and individuals low in authenticity respond to these challenges with counter-attacks. Therefore aggression towards others is understood as self-serving punitive behavior which manifests within individuals who suffer from low levels of authenticity. Consistently, previous research suggests that inauthentic individuals self-reported subordinating their needs within romantic relationships to avoid aggression (Neff & Harter, 2002). Authenticity in close relationships is also correlated with

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beliefs about the acceptability of deception (Lopez & Rice, 2006). However, no previous research has tested whether authenticity is related to actual aggressive behavior, as predicted by Horney's perspective. Our study presents the first to test the relationship between authenticity and a behavioral measure of aggression.

Anger is defined as a basic emotion experienced by most people and the propensity to experience anger differs between individuals (Deffenbacher et al., 1996). The interpersonal nature of anger is composed of negative attitudes towards another individual, often leading to blame and aggression (Anderson & Bushman, 2002; Smith & Lazarus, 1993). Typically, an individual's anger arises as a result of perceiving some inflicted harm or injustice by a wrongdoer (Averill, 1983; Miller, 2001). To measure aggression within authenticity we applied a behavioral measure of aggressive responses known as the point subtraction aggression paradigm (PSAP, Cherek, 1981). The PSAP is a laboratory task which provides objective measures of aggressive behavior whilst striving for monetary rewards. Aggression is indicated when participants steal points from opponents. This behavior is considered aggressive as there is no financial gain in stealing. In fact participants lose the opportunity to earn money each time they stole. Participants played for real money provided by the experimenters which they could keep, and aggressive and reward responses were measured by pressing specific response keys. The PSAP was developed as a measure of aggressive responding in unfair situations and is well validated for this usage, for example being consistent with self-report measures of aggression (Golomb, Cortez-Perez, Jaworski, Mednick, & Dimsdale, 2007), and can discriminate between perpetrators of violent-crimes and those convicted of non-violent offenses (Cherek, Schnapp, Moeller, & Dougherty, 1996; Cherek, Moeller, Schnapp, & Dougherty, 1997). In addition to the behavioral paradigm, we include covariates of age and gender along with self-report measures of trait-anger and agreeableness. Agreeableness is related to aggression (Sharpe & Desai, 2001) since agreeable individuals avoid aggression and interpersonal conflict (Graziano & Tobin, 2002). We also include measures of coping (Ferguson & Cox, 1997), since defensive aggression also represents coping behavior (Ursin & Olff, 1995). Considering Horney's (1951, 1977) accounts of aggression and authenticity where inauthentic individuals engage in more aggressive behavior, we expect that aggressive-responses on the PSAP will be predicted by low levels of authentic-living when a sense of unfairness is induced within the paradigm.

## 2. Method

### 2.1. Participants

Sixty-two undergraduate and postgraduate students (15 male and 47 female) from the University of Leicester took part in this study. Participants' age ranged from 18 to 60 years (*Median* = 20 years, *SD* = 9.87). Of the sample 71% were White, 22.5% Asian, 3.2% Black, and 3.2% responded as other. We used a student sample, as in addition to being a convenience sample, they were expected to show a full range of responses on the aggressive behavior continuum (instead of a range-restricted clinical sample). Also dealing with people with aggressive issues constitutes a common focus of university counseling practices.

## 3. Measures and procedures

*Aggressive behavior* was measured via the PSAP used by Carré and McCormick (2008) to measure aggressive responses. Participants were instructed to play against an "opponent" in the adjoining lab. In actuality they were administered with a computerized version of the PSAP using an E-Prime program. Participants were told the

object of the game was to earn as many points as possible by applying a strategy that enabled them to select among three response-options. Each point earned would be exchanged for £0.05. The response-options were as follows; pressing option-1 one-hundred consecutive times would increase the counter by 1 point. Participants were also told that the point-counter may decrease by 1 point. This indicated that their 'opponent' had stolen a point from them, which their opponent could keep. Pressing option-2 ten-consecutive times, allowed the participant to steal points from their 'opponent'. However although they had stolen a point, unlike their opponent they could not keep these points, this condition invoked feelings of unfairness within the individual. Finally pressing option-3 ten-consecutive times would protect the points earned by the participant from steals for a variable amount of time. The PSAP was programmed to provoke by "stealing" points from participants every 6–60 s in the absence of any option-2 or option-3 responses. These parameters were designed by Carré and McCormick to provide a provocation-free interval (PFI) if participants responded with ten-button presses on option-2 (aggressive response) or option-3 (protective-response). Participants were informed that hitting option-3 ten-consecutive times would initiate a PFI, but not told hitting option-2 (aggressive response) would also invoke a PFI. When a PFI was invoked, the programme did not steal or provoke participants for a variable amount of time ranging from 60–120 s. After which the programme continued to subtract points every 6–60 s. The PSAP allowed us to look at rewards earned (option-1), aggressive responses (option-2), and protective responses (option-3). Option-2 was considered aggressive counter-attack behavior as participants did not increase their monetary prize, but in fact lost the opportunity to increase points earned each time option-2 was selected. Participants played for real money, provided by the experimenters, which they were allowed to keep.

*Authenticity* was measured via the 12-item authenticity scale (Wood et al., 2008) to measure the three facets of authenticity. The three subscales consist of; self-alienation (4 items, e.g. "I don't know how I feel inside"), accepting external influences (4 items, e.g. "I usually do what other people tell me to do"), and authentic-living (4 items, e.g. "I always stand by what I believe in"). Items were rated on 1 (*does not describe me at all*) to 7 (*describes me very well*) scale. The scale has 2 and 4 week test-retest reliabilities ranging from  $r = .78$  to  $.91$  and a strong factor structure that is invariant across sample, gender, ethnicity, and age.

*Agreeableness* was measured via the International Personality Item Pool (IPIP, Goldberg, et al. 2006). This 10-item scale measures individual differences in concern for social harmony. Positive-items reflect getting along with others, empathy, consideration, friendliness, generosity, and helpfulness. Whereas negative-items reflect low empathy and concern for others, and a tendency of self-interest above getting along with others. All items are measured on a 1 (*very-inaccurate*) to 5 (*very-accurate*) scales.

*Anger* was measured by the 10-item facet of the IPIP NEO-PI R version (Goldberg et al., 2006) and measures individual differences in anger. Positive-items reflect the propensity to get angry whereas low levels of trait-anger reflect the propensity to keep calm. All items are measured on a 1 (*very-inaccurate*) to 5 (*very-accurate*) scale.

*Coping* was measured via Functional Dimensions of Coping scale (FDC; Ferguson & Cox, 1997). The FDC is a 16-item scale to measure four dimensions of coping; approach, avoidance, reappraisal, and emotional regulation. Items were measured on a 0 (*not at all*) to 6 (*very much so*) scale.

## 4. Results

Analyses reported here are conservatively based on the 56 participants who provided aggressive responses which showed a

**Table 1**

Descriptives for behavioral responses on the psap, authenticity, trait-anger, agreeableness, and functional dimensions of coping.

	PSAP scores			
	Min	Max	M	SD
Points earned	3465.00	8023.00	6404.18	1024.89
Aggressive responses	10.00	2163.00	496.70	468.35
Protective responses	50.00	1420.00	687.04	366.89
<i>Self-report measures</i>				
$\alpha$				
<i>Authenticity</i>				
Authentic- living	.79		22.35	3.58
Accepting external influences	.77		13.40	4.35
Self-alienation	.89		9.30	4.79
Trait-anger	.63		27.29	5.44
Agreeableness	.81		39.50	5.63
<i>Functional dimensions of coping</i>				
Approach	.77		12.51	4.80
Avoidance	.79		8.31	5.27
Emotional regulation	.82		10.09	3.29
Reappraisal	.79		15.75	5.52

Note. PSAP = Point-subtraction aggression paradigm.

sufficiently normal distribution to meet the assumptions of the statistical tests. The other six individuals introduced skew and are arguably a qualitatively different group of “never-aggressors” rather than on the same continuum of various aggressive responses as other participants. To ensure that this issue did not affect the results we also repeated all analyses including the six participants ( $n = 62$ ). This analysis provided completely consistent results making only trivial differences to significance (with significant results remaining so at  $p < .05$  and non-significant results remaining at  $p > .05$ ). The results of these analyses are available from the corresponding author and in no way account for the results.

Descriptive statistics for behavioral responses on the PSAP and self-report measures of authenticity, agreeableness, trait-anger, and coping are presented in Table 1. All scales demonstrate satisfactory scale reliability. Six participants never made any aggressive responses whereas the remaining 56 provided between 10 and 2163 aggressive responses. The six participants had non-statistically significantly lower scores on Authentic-living, in the direction expected by the predictions.

**Table 2**

Bivariate correlations between authenticity and behavioral responses of the PSAP, and self-report measures of, agreeableness, trait-anger, and FDC.

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Authenticity</i>													
1. Authentic-living	–	–.05	–.19	.23	–.04	.12	–.08	–.08	–.08	.20	–.33*	–.12	.01
2. Self-alienation		–	.44**	–.33*	.30*	–.34*	.04	–.21	–.42**	–.05	–.01	.18	–.03
3. Accepting external influences			–	–.12	.10	–.27*	–.05	–.32*	–.33*	.05	–.11	.11	.04
4. Agreeableness				–	–.53**	.40**	–.18	.28*	.36**	.02	–.04	.00	.02
5. Trait-anger					–	–.24	.06	–.15	–.24	.04	–.02	.10	–.05
<i>Functional dimensions of coping</i>													
6. Approach						–	–.48**	.37**	.79**	.06	.01	–.01	–.07
7. Avoidance							–	.19	–.23	–.04	.01	–.11	.03
8. Emotional regulation								–	.54**	–.04	.02	–.09	.05
9. Reappraisal									–	–.06	.10	–.02	.07
<i>PSAP</i>													
10. Reward										–	–.78**	.11	–.66**
11. Aggressive											–	–.06	.22
12. Provocation												–	–.31*
13. Protection													–

Note. PSAP = Point-subtraction aggression paradigm.

\*  $p < .05$ .

\*\*  $p < .001$ .

Table 2 demonstrates that individuals who spent more time hitting the point reward response (option 1) gained more points, showed less aggressive responses (option 2), protected their points less often (option 3), and were provoked more frequently. The amount of provocations received was not correlated to aggressive responses and was negatively correlated to protective responses. Therefore the more times individuals protected their points, the less often they were provoked. Table 2 also shows correlations between subscales of authenticity (authentic-living, self-alienation, and accepting external influences), agreeableness, trait-anger and functional dimensions of coping (approach, avoidance, reappraisal and emotional regulation). Results indicate that authentic-living is negatively correlated with aggressive responses on the PSAP. Self-alienation is negatively correlated with agreeableness, and positively correlated with trait-anger. Trait-anger is negatively correlated with agreeableness. Finally the coping dimension of approach is negatively correlated with avoidance and positively correlated with emotional regulation and reappraisal.

A stepwise multiple regression was conducted to explore to what extent aggressive responses were predicted by authenticity. To control for anger, trait-anger and agreeableness together with age and gender were entered into step 1. To control for coping FDC measures were entered into step 2. Authenticity subscales were entered into the final step. The results as seen in Table 3 indicate that aggressive responses were predicted by authentic-living alone accounting for 14.2% of the variance in aggressive responses  $F(3, 51) = 2.818$ , Adj.  $R^2 = .092$ ,  $r = .377$ ,  $p = .048$ .

## 5. Discussion

The aim of this study is to present behavioral evidence to explore the relationship between aggression and authenticity within Horney's (1951, 1977) accounts of neuroticism and aggression. We present evidence to demonstrate that low levels of authentic-living predict aggressive responses measured by the PSAP. Our findings are consistent with Horney's perspectives which suggest inauthentic individuals engage in self-serving punitive behaviors towards others. These self-enhancing, aggressive behaviors are directed to those who threaten the individual's sense of rightness. Our study introduced a feeling of unfairness by informing our participants that their “opponent” could steal hard earned points accrued by our participants and therefore gain monetary rewards, whereas our participants could not keep the points they stole. The relationship

**Table 3**  
Stepwise multiple regression predicting aggressive-responses on the PSAP.

	<i>b</i>	$\beta$	<i>t</i>	sig
<i>Step 1. Age, gender and anger</i>				
Age		-.00	-.03	.98
Gender		.05	.37	.72
Trait-anger		-.02	-.15	.88
Agreeableness		-.01	-.10	.92
<i>Step 2. Coping</i>				
Approach		-.02	-.17	.87
Avoidance		.04	.30	.77
Emotional regulation		.04	.32	.75
Reappraisal		.10	.79	.44
<i>Step 3. Authenticity</i>				
Authentic-living	-183.41	-.37	-2.77	.008*
Self-alienation	29.77	.06	.44	.66
Accepting external influences	-93.86	-.20	-1.38	.17

\*  $p < .05$ .

between aggressive behavior and authenticity is clearly demonstrated here by the regression analysis, which shows when controlling for age, gender, trait-anger, agreeableness, and functional dimensions of coping, authentic-living is a significant predictor to aggressive behavior. Within our student sample, 87.09% of participants engaged in aggressive responses when taking part in the PSAP. Previous research found that psychological distress within this population group is regularly treated by university counseling services (Rickinson, 1997). Several counseling psychology therapies, including humanistic/psychodynamic (e.g. Horney, 1951; Horney, 1977; Rogers, 1959) have increasing levels of authenticity as the key therapeutic outcome, seeing the relieving of psychopathology as arising from this growth process. Such therapies have strong empirical support on such dimensions as depression (Ward et al., 2000). The current research suggests that such approaches may also be helpful for the reduction of maladaptive levels of anger.

We also present evidence to suggest that authentic-living, a component of the tripartite model of authenticity is a good predictor of objective behavior. We therefore propose the use of authentic-living to predict behavioral outcomes. We acknowledge that there are limitations to the inference of the findings in our study, due to a relatively small homogenous sample being used. However the results suggest a statistically significant association between authentic-living and aggressive responses. Future examination of this relationship between authenticity and maladapted levels of aggression within a relevant clinical sample is needed. We also advise further research to explore the role of authenticity and emotional regulation in controlling anger and aggression.

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