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Reactance, Gender, Self-Esteem and Interpersonal Problems

Peering behind the mask: The roles of reactance and gender in the relationship between self-esteem and interpersonal problems

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Abstract

Objective: When a client feels a threat to their freedom or autonomy as a result of external feedback, they can act out and respond in maladaptive ways. This state – referred to as reactance – has potential ramifications on interpersonal functioning. However, the underlying factors exacerbating this response including self-esteem and gender are yet to be extensively explored in a clinical sample. The present study examined whether verbal and/or behavioural reactance mediate the relationship between self-esteem and interpersonal problems, and if this mediational relationship differs between men and women. **Method:** Patients with personality dysfunction ($N=136$) completed pre-treatment assessments of reactance, self-esteem and interpersonal problems and a conditional process model using these constructs was tested. **Results:** Findings indicated that the moderated mediation model was significant, pointing to behavioural reactance as a significant mediator in the association between self-esteem and interpersonal problems. Furthermore, the findings revealed that gender moderated the relationship between self-esteem and behavioural reactance, indicating that this association may apply specifically to men low in self-esteem. **Discussion:** These results shed light on how behavioural reactance may be an important manifestation of low self-esteem for men, and a key contributor to their interpersonal problems. The findings draw attention to the importance of considering different factors at play when working with reactant individuals in therapy.

Key practitioner message:

- Reactance refers to an oppositional tendency that is expressed either behaviourally or verbally in some individuals and can often exacerbate interpersonal dysfunction.
- Feelings of shame, guilt, vulnerability and dependence may interact with men's low self-esteem and provoke behavioural reactions that could interfere with therapeutic engagement.
- Therapists might consider using a variety of techniques that may be helpful for averting or managing behavioural reactance so that men with lower levels of self-esteem do not feel that entering treatment is threatening their freedom.

Keywords: reactance; gender; self-esteem; psychotherapy; interpersonal problems

Peering behind the mask: The roles of reactance and gender in the relationship between self-esteem and interpersonal problems

In general, as people transition from childhood into adolescence and then adulthood, there is an expectation that they will gain perceived freedoms and choices about how they can behave. When this ability to act freely is perceived to be impinged upon, threatened or totally removed, according to Brehm's (1966) psychological reactance theory (PRT), some will be motivated to restore this sense of freedom. This oppositional-oriented motivational state is referred to as reactance and can manifest as a behavioural response (e.g. attempting to regain control through acting out), and/or a verbal response (e.g., attempting to regain control through verbal challenges or threats) depending on the individual and setting (Dowd, Milne & Wise, 1991). The more important the freedom perceived to be under threat, the more intense the reaction to regain it (Brehm & Brehm, 1981).

Brehm's (1966) PRT positions reactance as a motivational state that drives the individual to reinstate their freedom. However, with the extension of reactance into clinical psychology, some reconceptualised reactance as a personality trait (for review see Rosenberg & Siegel, 2018). Importantly, an individual's underlying trait reactance, or consistent tendency to respond reactively when their freedoms are perceived to be threatened (Kelly & Nauta, 1997), has been found to directly predict the likelihood of an actual reactant response (i.e., state reactance; Beutler et al., 1991; Quick & Stephenson, 2008; Miller, Burgoon, Grandpre & Alvaro, 2006). Individuals displaying high trait reactance tend to be more autonomous, independent and dominant (Arnold et al., 2003), as well as controlling, suspicious of others, and disliking of conformity (Buboltz et al., 2003; Seemann et al., 2005;

De las Cuevas, Penate & Sanz, 2014; Quick & Stephenson, 2008; Seibel & Dowd, 2001).

Although some reactance is thought to be developmentally healthy, insight is required in order for it to be applied in a context-specific and flexible manner (Seibel & Dowd, 2001).

Reactance has been directly associated with a set of interpersonal distancing behaviours such as arguing, detachment and lack of accommodation, and negatively associated with traits necessary for relationship building such as empathy, tolerance, nurturance and interest in making good impressions (Sieverding, Seibel & Dowd, 1999; Dowd, Wallbrown, Sanders & Yesenosky, 1994). Those scoring high on reactance are more likely to be abusive partners (Hockenberry & Billingham, 1993). Also, reactant individuals are more likely to engage in behaviours that oppose a loved one's wishes (Chartrand, Dalton & Fitzsimons, 2006). This phenomenon, where the reactant individual responds to feedback to reduce a certain response by increasing the behaviour, is known as the 'boomerang effect' (Brehm, 1966). This outcome is evident in multiple studies demonstrating that suggestions to limit reckless driving, binge drinking and smoking in reactant individuals are often met with an intensification of the risk-taking behaviour, which can put strains on relationships (Gough, 2013; Sieverding, Specht & Agines, 2019; Yuyang, 2013; Miller et al., 2006). Collectively, these findings point to greater interpersonal problems among more reactant individuals often leading to psychological distress (e.g. Sieverding, Specht & Agines, 2019), but there is little research to date exploring this issue in clinical populations.

Psychological treatment requires a degree of dependence and social influence in order for the therapeutic relationship to be an effective vehicle for promoting behavioural or cognitive changes (Shoham, Trost & Rohrbaugh, 2004). As such, some psychologically

reactant individuals who seek help may perceive feedback offered as part of the therapeutic process as an authoritative threat to their ability to act freely, triggering oppositional responses and hampering treatment engagement and outcomes (Rosenberg & Siegel, 2018; Shoham, Trost & Rohrbaugh, 2004). Indeed, those higher in trait reactance tend to show decreased compliance with therapy compared to less reactive clients (Beutler, Moleiro & Talebi, 2002) and this response often leads to worse prognoses in treatment (Seibel & Dowd, 1999).

While reactance may be modulated by a number of processes, self-esteem, as a personal judgment of general worthiness, may be one important influential factor. Lower self-esteem has been linked to a greater likelihood that an individual will conform to demands and accept restrictions placed on them, whereas those higher in self-esteem are more likely to react against a threat to their freedom (Hellman & McMillin, 1997). In contrast to these findings, Joubert (1990) found that low self-esteem was associated with high reactance, but only among women (Joubert, 1990). Others argue no relationship between self-esteem and reactance (Hong & Faedda, 1996; Hong, Giannakopoulos, Laing & Williams, 1994). The interaction between self-esteem and reactance may have relational implications as well, giving rise to interpersonal problems. For example, overly submissive or aggressive responses may affect relationships over time, with linkages to levels of self-esteem and a perception of threat. Clarifying the relationship between reactance and self-esteem (and other factors that may influence their association) on interpersonal problems may provide therapists (and potentially those in public-facing roles such as teaching or emergency services) with a

better understanding of avenues to address and effectively intervene in promoting behaviour change for reactant individuals.

A moderating factor that may impact the association between self-esteem, trait reactance and interpersonal problems is gender. Gender differences may be expected between men and women's reactance, taking into account underlying socialization that normalizes male behaviours consistent with reactant behaviour (i.e., anger and aggression; Dowd & Wallbrown, 1993). Of note, behaviourally reactant responses mirror the symptom profiles of disorders that are more prevalent among males such as oppositional defiance, attention-deficit hyperactivity and antisocial personality disorders (Demmer et al., 2017; Skounti, Philalithis & Galanakis, 2007; Khan et al., 2005). Overall, men may be more likely to react to a threat to their freedom both verbally and behaviourally due to existing socialised power dynamics (Joubert, 1990; Mallon, 1992; Dowd & Wallbrown, 1993; Seemann et al., 2004). Studies have also indicated that men consistently report higher self-esteem than women (Bleidorn et al., 2016). Inferred from these findings is the possibility that gender may conditionally impact (i.e., moderate) the effect of self-esteem on reactance. In other words, the association between self-esteem and reactance may be different for men and women due to socialization processes, as men low in self-esteem might try to reclaim a sense of autonomy or control through reactance, while women high in self-esteem may be more likely to feel comfortable displaying dominance or assertiveness. This ties in with prominent men and masculinities theories, which suggest that when men feel that their manhood is in conflict or being challenged, they may take more risks or become aggressive to reassert a sense of

dominance and control (Vandello et al., 2008; Kaya et al., 2019). Despite the plausibility of a moderating effect of gender, no previous research has investigated this.

The current study was undertaken with a sample of treatment-seeking adults in order to understand how self-esteem and trait reactance contribute to maladaptive interpersonal functioning, given that patients who are actively involved and behave in the best interests of their health and healthcare tend to have better outcomes (Hibbard & Greene, 2013). Given the novel nature of this model, the inter-relationship between all of these variables in a clinical sample was not hypothesised. Rather, the research was dictated by the following questions: What role does gender play in moderating the relationship between self-esteem, reactance and interpersonal problems, and does this relationship differ depending on the type (i.e. behavioural; verbal) of trait reactance? Thus, the current study aimed to explore whether verbal and/or behavioural trait reactance mediates the relationship between self-esteem and interpersonal problems, and whether this mediational relationship differs between men and women.

Methods

Participants

Consecutively registered patients (N=136) who presented for service in the Evening Treatment Program (ETP) of the Department of Psychiatry at the University of Alberta Hospital in Edmonton, Canada participated. The ETP is an intensive, dynamically oriented outpatient group therapy program that aims to facilitate improved wellbeing and social functioning for individuals suffering from severe personality dysfunction (PD). The ETP involves five evenings per week of group psychotherapy, over an 18-week period, in order

that patients with serious personality difficulties can engage in intensive treatment while preserving important daytime activities such as employment or education. The primary admission criteria for the program were (1) the presence of significant personality dysfunction that either met criteria for a PD diagnosis or constituted significant traits that did not qualify for a full diagnosis yet represented considerable dysfunction; (2) engagement in a meaningful daily activity, such as employment, education, parenting, or volunteering; (3) a capacity for group participation; and (4) a minimum age of 18 years. Exclusion criteria comprised active psychosis (e.g., schizophrenia), organic mental disorder, acute suicidality, active substance abuse in need of primary attention, significant intellectual impairment, or active treatment at another mental health service.

Measures

Reactance was assessed using the Therapeutic Reactance Scale (TRS; Dowd, Milne, & Wise, 1991), a 28-item self-report measure of an individual's trait reactance that consists of two subscales assessing for Behavioural and Verbal reactance respectively. The Behavioural Reactance subscale reflects tendencies to act in ways that oppose encouraged behaviours (sample item: "If I am told what to do, I often do the opposite"). The Verbal Reactance subscale refers to the inclination to verbally resist persuasion (sample item: "I feel it is important to stand up for what I believe than to be silent"). Items in the TRS are responded to using a 4-point scale anchored by strongly disagree (1) to strongly agree (4); means of item responses provide subscale scores where higher scores indicate more severe reactance. Lowery et al., (2020) reported good internal consistency reliability scores for the TRS subscales of 0.69 (behavioral) and 0.59 (verbal) and in their original sample Dowd et al.

(1991) reported test-retest reliabilities over 3 weeks of 0.59 (behavioral) and 0.57 (verbal) with these two factors accounting for 26% of the total variance.

Self-esteem was assessed by the Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965), a commonly used 10-item measure of global self-worth measuring both positive and negative views of the self. Items are answered on a 4-point Likert scale ranging from strongly agree (1) to strongly disagree (4). Higher scores indicate higher self-esteem (Cronbach α = 0.89; Rosenberg, 1965).

Interpersonal problems was assessed using the 64-item Inventory of Interpersonal Problems (IIP-64; Horowitz, Alden, Wiggins & Pincus, 2000). The IIP-64 is a self-report questionnaire that inventories interpersonal problems and the relative personal distress arising from these problems across 8 subscales with each subscale consisting of eight items. Items are rated on a 5-point Likert scale ranging from not at all (0) to extremely (4). The subscales include: (i) Domineering; (ii) Vindictive; (iii) Cold; (iv) Socially Inhibited; (v) Non-Assertive; (vi) Overly Accommodating; (vii) Self-Sacrificing; and (viii) Intrusive. All item scores were summed and averaged across items for an overall mean measure of the patient's current interpersonal problems (Cronbach α = 0.70-0.85; Weinryb et al., 1996). Higher IIP-64 scores reflect a greater severity of distress related to interpersonal difficulties.

Procedure

Institutional research ethics approval was obtained for the study, and patients who took part provided written informed consent prior to participation. All measures were administered to patients before they began treatment.

Data analysis

Statistical analyses were performed with SPSS version 26.0 using the PROCESS macro 3.0. Descriptive statistics were used to characterise the sample. Conditional process modelling was used to test whether an indirect effect of self-esteem on interpersonal problems would be observed via the mediating effect of psychological reactance (verbal and behavioural), with gender moderating the association between self-esteem and reactance (PROCESS model 7). Self-esteem was entered into the model as the independent variable, with interpersonal problems as the dependent variable. Behavioural and verbal reactance were entered as parallel mediators. An indirect effect of self-esteem through reactance would be inferred on the basis of bootstrap 99% confidence intervals (CI; 10,000 resamples), with statistical significance indicated by the confidence interval of the indirect effect coefficient not straddling zero. Gender was entered as a moderator of the path between self-esteem and reactance (first-stage moderated mediation). Moderated mediation would be indicated by a significant interaction between self-esteem and gender, and by the significance of the index of moderated mediation (evaluated using 99% bootstrap CIs). The bootstrapped approach to testing moderated mediation has the advantage of not requiring assumptions of normality of the sampling distribution.

Results

The sample consisted of 136 patients, 66% of who were female ($n = 90$) and with an average age of 37 years (range: 19-63; $SD = 10$). 38% ($n=52$) of the patients were living with a partner and most were employed (70%; $n = 95$) and reported receiving some postsecondary education (68%; $n = 92$). 90% of patients reported having received prior mental health treatment ($n = 122$) and 23% had a history of psychiatric hospitalisation ($n=32$). The majority

of participants were diagnosed with a personality disorder (PD) through structured clinical interview (63%; $n = 85$). Of these participants, 46% met criteria for borderline PD ($n = 39$), 44% for avoidant PD ($n = 37$) and 31% for obsessive-compulsive PD ($n = 26$).

Men reported, on average, significantly higher behavioural reactance ($M = 2.29$; $SD = .33$) compared to women ($M = 2.14$; $SD = .35$; $t(136) = 2.47$, $p = .012$). There were no gender differences for verbal reactance [(males $M = 2.64$, $SD = .36$; females $M = 2.60$, $SD = .38$), $t(136) = .59$; $p = .56$], self-esteem [(males $M = 2.37$, $SD = .56$; females $M = 2.19$; $SD = .54$, $t(135) = 1.89$; $p = .06$), or interpersonal problems [(males $M = 1.64$, $SD = .55$; females $M = 1.59$, $SD = .50$), $t(134) = .54$; $p = .59$].

Results of regression analyses for conditional process modelling are presented in Table 1 and illustrated in Figure 1. The interaction between self-esteem and gender was found to be significant in predicting behavioural reactance, indicating moderation of the path from self-esteem to behavioural reactance, but not regarding verbal reactance. Lower self-esteem was associated with higher behavioural reactance, but only for men in the sample.

The bottom panel of Table 1 reveals a significant, conditional indirect effect for self-esteem on interpersonal problems through behavioural reactance, moderated by gender. There was no such effect for verbal reactance. Specifically, among men, self-esteem had a significant effect on behavioural reactance, which in turn was significantly associated with interpersonal problems. The model satisfied criteria for moderated mediation, indicated by the index of moderated mediation (index = .111, SE = .050, CI [.009, .269]). Among women, however, the indirect effect of self-esteem on interpersonal problems through behavioural reactance was non-significant.

Discussion

This study examined a novel model exploring whether reactance mediates the relationship between self-esteem and interpersonal problems, and whether this relationship differed between men and women. The findings supported a significant moderated mediation model, whereby behavioural reactance acted as a mediator between self-esteem and interpersonal problems, but only in men. The current results respond to the research questions at hand in revealing gender differences, and by extension, underscore the need for nuance when considering the implications of reactance. Individuals acting in ways directly opposed to what is encouraged by others can potentially impact interactions in clinical, educational and broader societal contexts.

In the present study, men lower in self-esteem were more likely to show high levels of behavioural reactance (but there was no association for females). This contrasts with previous reports of the opposite, or no relationship between self-esteem and reactance (Hellman & McMillin, 1997; Hong & Faedda, 1996; Hong et al., 1994). There is evidence that reactance can have a different structure in clinical and non-clinical groups (Arnow et al., 2003), which may explain the discrepancy with past findings. The desire to restore perceptions of autonomy in response to regulations or impositions may be more prevalent in individuals experiencing mental health concerns who are navigating often strict psychiatric services while dealing with existing experiences of trauma or distress that impinge on their levels of self-esteem (De las Cuevas et al., 2014). Moreover, low self-esteem is the antithesis to

dominant norms of masculinity including strength, power and independence; thus when combined with a threat to freedom, some men may react (behaviourally more so than verbally) to protect or maintain their self-esteem and attempt to reinstate or prove a sense of manhood (Vandello & Bosson, 2013). Previous research suggests that highly reactant individuals are also more likely to become physically aggressive (Koszegi, Loewenstein & Murooka, 2019), consume more alcohol (Rains & Turner, 2007), engage in drug use (Quick & Considine, 2008), smoke (Grandpre et al., 2003) and drink drive (Sieverding, Specht & Agines, 2019) when told not to. These behavioural responses are of specific import in the male population, given an increasing body of evidence suggesting that male depression and suicidality may manifest through externalising symptoms that mirror these risk-taking behaviours (Rice et al., 2017; 2018).

Consistent with previous research highlighting how behaviourally reactant individuals tend to exhibit less prosocial behaviours (Buboltz et al., 2003; Seemann et al., 2005; Chartrand, Dalton & Fitzsimons, 2006), the present results showed behavioural, not verbal, reactance to be associated with greater interpersonal problems in men. This mirrors other findings whereby behaviourally reactant men were found to score low on measures of emotional intelligence such as self-control, wellbeing and sociability (Middleton, Buboltz & Sapon, 2015). Hence, behaviourally reactant individuals may lack the social skills necessary to create and maintain healthy relationships, such as knowing when to actively modulate reactant responses. This aligns with findings that behaviourally reactant individuals are more likely to be in relationships involving violence and domestic abuse (Hockenberry & Billingham, 1993). Accordingly, they tend to rank autonomy and identity as more important

than trust and intimacy (Dowd, Pepper & Seibel, 2001). Further, behaviourally reactant individuals are unlikely to adhere to advice from physicians and loved ones such as ceasing a harmful addiction or even taking prescribed medication (Fogarty & Youngs, 2000), especially if that behaviour (e.g., smoking, drinking, refusing treatment) contributes to the man's sense of self or manhood (Dowd, 2002). This cycle understandably promotes interpersonal problems, as an individual's display of reactant behaviour can be viewed as an undermining of themselves and their relationships by outrightly opposing the desires of those closest to them (Shoham et al., 2004).

Interestingly, whilst behavioural reactance was associated with interpersonal problems in men, verbal reactance was associated with less interpersonal problems in women. A certain degree of verbal reactance may be necessary in order to successfully navigate social relations. Previous research has shown that both men and women high on verbal reactance have greater access to their emotional experience, increased self-control, wellbeing and sociability (Middleton, Buboltz & Sopon, 2015). Therefore, verbally reactant individuals may have a greater capacity to effectively regulate, control and express their emotions, providing them with more emotional resources to draw on when interacting with others. Additionally, verbal reactance is typically deemed more socially acceptable than behavioural reactance (e.g., violence) and thus individuals high in verbal reactance may not face the same public scrutiny as those high in behavioural reactance and experience less subsequent interpersonal issues. As such, the current study highlights the value of examining behavioural and verbal reactance as separate constructs in order to understand their effects on social relations and psychosocial distress. Future research should aim to investigate

associations between self-esteem, interpersonal problems and verbal reactance among women to discern whether there is an optimal level of verbal reactance that allows them to more adaptively navigate interpersonal relationships.

The findings of the present study have clinical implications, as feelings of shame, guilt, vulnerability and dependence – all common experiences evoked in therapy – may interact with men's low self-esteem and provoke behavioural reactions that could interfere with therapeutic engagement and compromise benefit from treatment (Seidler et al., 2017; Westwood & Black, 2012). Indeed, existing research has indicated that highly reactant individuals have higher rates of non-compliance to prescribed medication, are more likely to engage in therapy-interfering behaviours such as being late, missing appointments or prematurely terminating therapy, and are less likely to complete assigned tasks or homework (Seemann et al., 2005; Kealy et al., 2018). Moreover, reactance has been found to be a considerable obstacle in achieving positive outcomes in therapy (De las Cuevas, Penate & Sanz, 2014) leaving the individual more likely to be dissatisfied with their experience (Arnou et al., 2003). Therefore, therapists might consider using a variety of techniques that may be helpful for averting or managing behavioural reactance so that men with lower levels of self-esteem do not feel that entering treatment, or the treatment itself, is threatening their freedom, their masculinity or their ongoing self-esteem. For example, paradoxical interventions that attempt to challenge an ingrained belief or fear (e.g. fear of failure) by paradoxically prescribing the very issue they want resolved (e.g. purposefully fail), and other non-directive approaches may be effective, as they work with, rather than against, the client's reactive tendencies (Beutler, Edwards & Someah, 2018).

Being transparent by openly naming the client's reactance and exploring together how the therapist could be fuelling reactance has also shown to be effective (Ellis, 2004). Given the interaction between therapists' own gender socialisation—which brings unique attitudes, behaviours and beliefs—and that of male clients, it is essential the therapist is consciously aware of, anticipating and accommodating for, but not enabling, reactance in lower self-esteem men (Seidler et al., 2018b). Moreover, the presence of reactant behaviour can be leveraged by a treating clinician to aid in the tailoring of intervention strategies, especially when it comes to responding to interpersonal problems. Those low in trait reactance may benefit from being upskilled to employ more assertive decisiveness in their relationships, modelled in therapy, while those higher in trait reactance might require training in acceptance and collaboration (Dowd & Seibel, 1990). In this spirit, allowing a reactant client greater self-directedness in treatment through enhancing sharing decision-making (e.g. pacing, style, goals of therapy), which is already a recommendation in the men's mental health literature (Seidler, Rice & Hermann, 2018), may enhance therapeutic effectiveness by facilitating an expanded sense of client agency (Rosenberg & Siegel, 2018; Beutler & Harwood, 2000)

The current study is limited by its reliance on self-report data; though there is evidence that reactance is associated with low social desirability (Shoham, Trost & Rohrbaugh, 2004). Future studies may benefit from including more direct measures of reactance such as compliance with homework, and qualitative interviews with men describing any fears or motivations that may underpin their reactant responses. This will help in contextualizing the current findings and offer useful inroads to intervention (Beutler, Edwards & Someah, 2018). The cross-sectional design of the present study is also a

limitation; pointing to the need for longitudinal methodologies in future studies to more appropriately investigate causal relationships and move beyond exploratory modeling towards more robust direct linkages between these constructs (Steindl & Jonas, 2015). Finally, the current findings should be interpreted in light of the fact that the direct effect from self-esteem to interpersonal distress remains the strongest relationship in the moderated mediation model.

Despite these limitations, the present study suggests that behavioural reactance is an important manifestation of low self-esteem for men, and a key contributor to their interpersonal problems. The findings draw attention to the importance of considering different factors at play when working with reactant individuals in therapy. Future research should look toward distilling further insights into the patterns observed in the present study and identifying strategies that could support the engagement of men with sensitivity and reactivity to threatened autonomy.

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Table 1. Results of conditional process modelling examining the relationship between self-esteem, verbal and behavioural reactance, and interpersonal problems moderated by gender

DV: Behavioural reactance	Coeff	SE	<i>t</i>	<i>p</i>
Self-esteem	-.585	.191	-3.059	.003
Gender	-.878	.265	-3.310	.001
Self-esteem X Gender	.313	.112	2.805	.006
$R^2 = .101, F(3, 132) = 4.966, p = .003$				
DV: Verbal reactance	Coeff	SE	<i>t</i>	<i>p</i>
Self-esteem	-.140	.212	-.662	.509
Gender	-.341	.294	-1.161	.248
Self-esteem X Gender	.140	.123	1.14	.257
$R^2 = .029, F(3, 132) = 1.30, p = .273$				
DV: Interpersonal problems	Coeff	SE	<i>t</i>	<i>p</i>
Self-esteem	-.451	.068	-6.671	.000
Behavioural reactance	.354	.121	2.930	.004
Verbal reactance	-.281	.114	-2.461	.015
$R^2 = .333, F(3, 132) = 21.962, p = .000$				
Conditional indirect effect of Self-esteem	Effect	SE	Lower CI	Upper CI
Through Behavioural reactance for Gender (male)	-.096	.042	-.228	-.010
Through Behavioural reactance for Gender (female)	.014	.024	-.050	.089
Through Verbal reactance for Gender (male)	-.001	.031	-.085	.102
Through Verbal reactance for Gender (female)	-.040	.023	-.110	.017
Index of moderated mediation (Behavioural)	.111	.050	.009	.269
Index of moderated mediation (Verbal)	-.040	.041	-.174	.058

*Note: Indirect effects estimated using bootstrap 99% bias-corrected confidence intervals (10,000 resamples).
DV = dependent variable; Coeff. = coefficient*

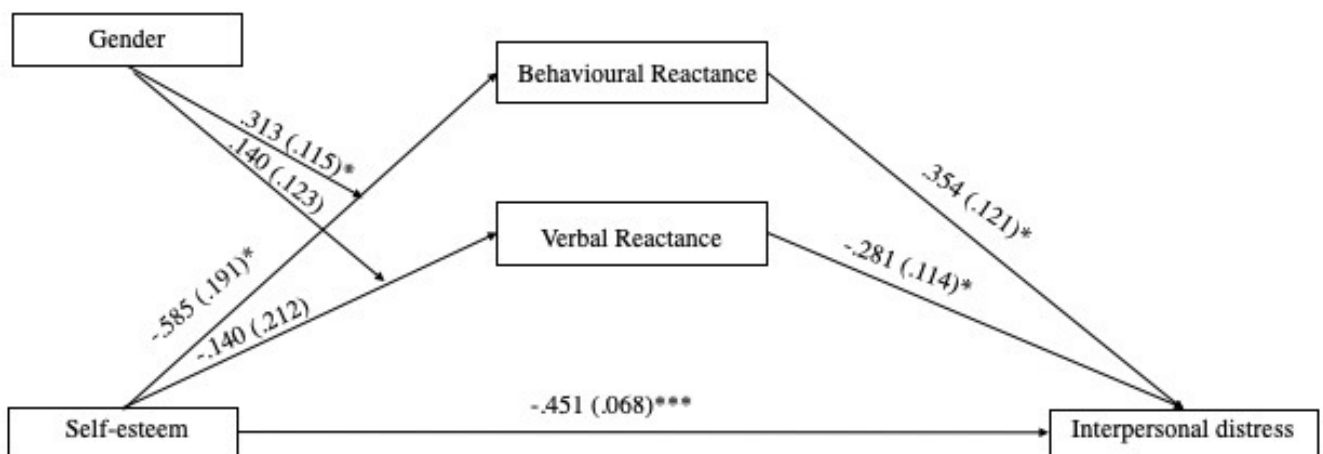


Figure 1. Conditional process modeling of the relationship between self-esteem, behavioural reactance, verbal reactance and interpersonal problems, moderated by gender

Note: Reported coefficients are unstandardized. * $p < .05$; ** $p < .001$

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