Antagonism from the Perspective of Interpersonal Theory

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Abstract

In this chapter, antagonism, both as a trait and as its specific manifestations in momentary thoughts, feelings, and behavior are examined through the lens of contemporary integrative interpersonal theory (CIIT). CIIT views personality as the consistent patterning of interpersonal functioning that emerges in interpersonal situations, and integrates a validated structural model (the interpersonal circumplex) for organizing interpersonal functioning with a framework for making predictions about dynamic processes within and across situations. From this perspective, antagonism can be viewed as a personality trait or behavior that falls well within the bounds of the interpersonal circumplex of traits, problems, and values. In addition, expressions of antagonistic behavior vary dynamically across time, and appear to be contextualized and contingent on certain situational features.

Keywords: Interpersonal Theory; Interpersonal Circumplex; Antagonism; Interpersonal Situation; Social behavior

Antagonism from the Perspective of Interpersonal Theory

Antagonism is a broad maladaptive personality domain encompassing a range of lower order facets that place one at odds with others. As a disposition, or in its specific manifestations in thoughts, feelings, and behavior, antagonism is rooted in interpersonal or social processes. Interpersonal theorists (e.g., Leary, 1957; Pincus & Ansell, 2013; Sullivan, 1953a) conceptualize personality as "the relatively enduring pattern of recurrent interpersonal situations that characterize a human life" (Sullivan, 1953a, pp. 110–111). From this perspective, the most important adaptive and maladaptive expressions of personality occur in social interactions. Contemporary integrative interpersonal theory (CIIT; Pincus & Ansell, 2013) would therefore seem to have much to offer the field's understanding of antagonism and antagonistic behavior. In this chapter, the specific assumptions of CIIT regarding personality structure and process are covered, followed by a review of empirical findings relevant to antagonism.

Contemporary Integrative Interpersonal Theory

CIIT is an evidenced-based model of personality that links an empirically derived structure with dynamic social-cognitive, affective, and behavioral processes that offer a scientifically grounded framework to generate testable hypotheses regarding individual differences and situational behavior. CIIT uses a two-dimensional model called the interpersonal circumplex (IPC; see Figure 1) to describe and measure interpersonal functioning (Horowitz, 2004). The major dimensions of the IPC are dominance versus submissiveness on the vertical axis, and affiliation versus disaffiliation on the horizontal axis. Interpersonal theory asserts that, "all forms of social behavior can in turn be viewed as combinations of the four poles" (Fournier, Moskowitz, & Zuroff, 2011; p. 58). The IPC has long served as a "key conceptual map" (Kiesler, 1996, p. 172) in personality and clinical psychology for the identification of dispositional interpersonal styles among diverse populations (Pincus & Wright, 2011). Moreover, it serves as an integrative

framework, uniting models of traits, motives, cognition, behavior, and psychopathology (Hopwood, Wright, Ansell, & Pincus, 2013; Locke, 2011).

The IPC organizes not only the *static* relations among the interpersonal variables (i.e., the ordering around the circle), but also the *dynamic* processes of transactions based on the interpersonal bids and pulls between individuals in interpersonal situations (Horowitz, 2004; Pincus & Ansell, 2013). Sullivan (1953a, 1953b) argued that as a social species, humans are motivated to come together (i.e., interpersonally) in the pursuit of satisfactions (generally a large class of biologically grounded needs), security (i.e., anxiety-free functioning), and self-esteem. Importantly, in CIIT the term interpersonal does not exclusively refer to overt behaviors that occur between people, but also occurs inside people's minds via the capacity for mental representation of self and others. As such, an important component of the interpersonal situation is an individual's perception of the others' behavior as well as expectations for the outcomes or responses to one's own behavior. Both the outward and internal aspects of interpersonal situations reflect an individual's relational strategies, regulatory functioning, and self-concept. Therefore, dynamic interpersonal processes involve the patterns of perceiving, interpreting, feeling, and behaving over time and across situations.

Figure 2 is designed to depict the important features of interpersonal situations (Hopwood et al., in press; Pincus et al., in press). Naturally, a static diagram struggles to capture the dynamic nature of real interpersonal situations. So, Figure 2 is perhaps best understood as a time-lapse image of a situation. As a distilled representation, Figure 2 includes two vertical rectangles to represent two individuals, within each rectangle are circles that represent an individual's self-construal (here the broader terms agency and communion are used instead of the more behavioral dominance and affiliation) and affect, and arrows link the two rectangles and circles within the rectangles. The first set of arrows (marked with bold A) represent overt behavior between

interacting partners, the second set (B) reflect perceptions, both one's perception of the other (those going between rectangles) and one's own self-monitoring (curved arrows), the third set (C) link self-construal and affect. These paths in Figure 2, along with the major components they link (behavior, perception, self-construal, affect) can be used identify the patterns of interpersonal functioning that give rise to what we understand as personality. For instance, an individual who has a characteristic self-construal as agentic and communal, accompanied with a positive and high arousal affective set point, a tendency to perceive others as interested, and consistently behaves in a dominant and warm manner might be understood as extraverted. However, it is also important to note that when confronted with the variety of situations that are representative of daily life, the extraverted individual will likely need to shift in behavior and affect based on the perceived demands, and the path values would thus shift dynamically across situations to some degree.

Although the interpersonal situation can be flexibly used to chart any specific patterning of interpersonal functioning, CIIT has established probabilistic patterns of social transaction termed *interpersonal complementarity* (Carson, 1969; Kiesler, 1983). Complementarity refers to the match or mismatch of individuals' interpersonal needs in an interpersonal situation and the tendency to adjust behaviors in response to others' behavior (Horowitz et al., 2006). Specifically, complementarity has often been defined behaviorally as similarity on the affiliation dimension and opposite on the dominance dimension (Carson, 1969; Sadler et al., 2011). That is, one person's affiliation pulls for another person's affiliation (and vice versa), and one person's dominance invites the other's submissiveness (and vice versa; Carson, 1969; Kiesler, 1983; Sadler et al., 2011). Complementarity is not intended to be a universal law of interaction, although empirical studies consistently find support for its probabilistic predictions (Sadler et al., 2011). As such, it is best understood as a common baseline for the reciprocal influence of interpersonal behavior associated with healthy socialization; and, deviations from complementary interpersonal patterns

are more likely to be costly to an individual or those around them. Chronic deviations from normative social processes may reflect impairments in: (1) grasping common expectations of interpersonal situations, (2) appreciating and/or accepting the needs of others and the goals of their behavior, and (3) adaptively pursuing one's own needs and motives. Each of these reduces the likelihood that the interpersonal needs of both persons will be satisfied in the interpersonal situation (Hopwood et al., 2013; Horowitz et al., 2006). Maladaptive expressions of personality, including antagonism, can be understood in terms of these kinds of impairments (Hopwood et al., 2013; Pincus & Wright, 2011).

Empirical Findings

This review of empirical findings is necessarily selective, and it subordinates early descriptive findings and privileges, for in depth discussion, recent work that targets behavior across and within interpersonal situations. Chapters rarely report new empirical results. However, the published data that inform the relationship between antagonism and dynamic interpersonal processes are relatively sparse. To enrich this discussion of how antagonism manifests in interpersonal functioning across and within situations, new data and results from four samples of ecological momentary assessment (EMA) data of interpersonal behavior and/or perception are presented. Three were collected from undergraduate volunteers who participated, in return for course credit, in a baseline assessment and EMA studies for 7-8 days. Detailed information on participants and procedures for samples 1 and 2 can be found in Edershile et al. (2018) and Himmelstein, Woods, and Wright (2018), respectively. Sample 3 is not previously published, but the procedures mirrored Sample 1. In each study, participants completed up to 6 ratings per day of interpersonal interactions lasting at least 5 minutes using an application loaded on their personal smartphones. Participants rated how they perceived the other person to behave and how they behaved on two bipolar visual analogue items for dominance (*assured/dominant/controlling* to

accommodating/submissive/timid) and affiliation (*cold/distant/hostile* to *warm/friendly/caring*; Woods et al., 2018). Each sample provided one measure of trait antagonism (Sample 1, Comprehensive Assessment of Traits for Personality Disorder [CAT-PD; see e.g., Wright & Simms, 2014] antagonism domain score; Sample 2, the Big-Five Inventory-2 [Soto & John, 2016] reversed agreeableness score; Sample 3, Personality Disorder for DSM-5 [PID-5; Krueger et al., 2012] brief [5-item] antagonism domain). In addition, Sample 1 provided ratings on interpersonal problems using the IIP-SC (Soldz et al., 1995), interpersonal values using the Circumplex Scales for Interpersonal Values (Locke, 2000), and interpersonal sensitivities (Hopwood et al., 2011).

The fourth sample was a daily diary study of participants diagnosed with personality disorders. Methodological details can be found in Wright and Simms (2016) and Wright, Simms, and Hopwood (2015). Interpersonal behavior was measured using daily ratings of 8 interpersonal adjectives scored for dominance and affiliation. Trait antagonism was measured using the average of the PID-5 antagonism facets (*Callousness, Manipulativeness, Grandiosity, Attention Seeking, Deceitfulness,* and *Hostility*) and as the reverse score of the NEO-FFI agreeableness scale (Costa & McCrae, 1992). Daily antagonism was measured as the mean of daily ratings on *hostility*, *exhibitionism*, and *manipulativeness* as described in Wright and Simms (2016). Relevant results from these four samples are included in the review of empirical findings that follow.

Cross-Sectional Dispositional Research

A circumplex is a formal geometric model, and multi-scale inventories developed to fit this structure can be used to make precise and testable predictions for evaluating the associations among constructs. Leveraging the circumplex structure of many inventories of dispositional interpersonal functioning (e.g., traits, problems), Gurtman (1992) developed the structural summary method, which offers a way to reduce multi-scale profiles to several key parameters and to test theoretically prescribed patterns in the data. Technical information is offered elsewhere

(Wright et al., 2009; Zimmermann & Wright, 2017), but briefly the structural summary method can be used to test whether a pattern of means or correlations with circumplex scales conforms to a circular pattern, and then reduces this profile into three parameters: elevation (average value), amplitude (how differentiated is the pattern), and angular location (where in the IPC the profile peaks).[1] This can be used, for instance, to evaluate the pattern of correlations from a measure of interest (e.g., antagonism scale) with interpersonal problem scales. An elevated profile would suggest antagonism is associated with interpersonal distress, a high amplitude would suggest antagonism has a specific interpersonal style, and the angular location would reveal what that style is. Non-interpersonal variables are unlikely to have this sort of pattern. Thus, the structure of the IPC serves as a nomological net for evaluating external constructs (e.g., antagonism).

Early dispositional work examined the location of NEO-PI agreeableness in interpersonal trait space, locating it at approximately 330º (see dotted line in Figure 1; e.g., McCrae & Costa, 1989; Pincus, 2002). If antagonism is defined as the inverse pole of agreeableness, then it would have been located at approximately 150º in IPC space, in the *Hostile-Arrogant* octant shifted towards *Cold-Separate*. Ansell and Pincus (2004) found that vignettes describing individuals low in agreeableness were rated as falling almost exactly in this location (155º-160º) by naïve raters. As such, from a trait perspective, FFM agreeableness, and by extension antagonism, can be largely construed as a rotational variant of the IPC's affiliation axis.

At around the same time of this basic work integrating the trait systems, Wiggins and Pincus (1989; Pincus & Wiggins, 1990) examined the associations between personality disorders and interpersonal traits and problems. Several of the personality disorders, most notably narcissistic, antisocial, but also paranoid and borderline, have shown marked associations with

[1] Readers interested in implementing this analytic approach are directed to a shiny web application "fullcircle" developed by Jeffrey Girard (http://r.jmgirard.com/shiny/fullcircle/) for an easy to use graphical user interface.

antagonism (Samuel & Widiger, 2008). Wiggins and Pincus found that narcissistic and antisocial personality disorder scales were located within the upper left quadrant of the IPC (90º -180º) across both trait and problem surfaces (see dark shading in Figure 1). Exact locations varied somewhat across scales, although narcissism tended to fall mostly within the *Assured-Dominant* octant, whereas antisocial fell within the *Hostile-Arrogant* octant. Results for borderline and paranoid in these early studies were equivocal. More recently, however, Wilson et al. (2017) meta-analyzed associations between personality disorders and interpersonal problems, finding that narcissistic (110º), antisocial (114º) paranoid (141º), and borderline (128º) all fell within the upper-left quadrant of the problems circumplex, all with highly differentiated (amplitude range = .22-.38) and elevated (elevation range = .19-.37) profiles. Thus, each of these personality disorder constructs fall within the typical range of antagonism, with clear interpersonal themes despite elevated general distress.

Contemporary conceptualizations of personality pathology favor a hierarchical dimensional maladaptive trait model over discrete disorders (Wright, Thomas, et al., 2012). A trait model of this sort was ultimately included in the alternative personality disorder model in the DSM-5, and includes a domain devoted to antagonism. Indeed, accumulating evidence suggests that much of psychopathology might be accommodated within a similar model (Kotov et al., 2017). For instance, Wright and Simms (2015) factor analyzed major mental disorders, including clinical syndromes and personality disorders, and the PID-5 showing that they could be organized within a shared structure. Wright, Pincus, and colleagues (2012) found that the DSM-5's antagonism dimension had an elevated and distinct problem profile that peaked in the *Assured-Dominant* octant. Interestingly, antagonism in the DSM-5 model also incorporates constructs such as attention seeking that are traditionally the hallmark of histrionic personality disorder, the interpersonal profile for which generally peaks in the Gregarious-Extraverted octant (Pincus &

Wiggins, 1990; Wiggins & Pincus, 1989; Wilson et al., 2017). Thus, when this content is incorporated into the conceptualization of antagonism, it shifts its interpersonal profile towards dominance and away from cold-dominance (see light shaded area in Figure 1). For instance, in a recent study, Girard et al. (2017) found that narcissistic, paranoid, and histrionic served as indicators for a single factor, which had an elevated and moderately differentiated interpersonal problem profile that peaked in the dominance octant.

To extend these findings to other interpersonal surfaces using a contemporary measure of antagonism per se, Sample 1 was used to examine antagonism's interpersonal profile of problems, values, and sensitivities using the structural summary method with bootstrapped confidence intervals (Zimmermann & Wright, 2017). Consistent with prior results, we found that antagonism's problem profile was elevated, but also had a very clearly differentiated peak falling at the border between the *Assured-Dominant* and *Hostile-Arrogant* octants (i.e., 112°). Similarly, the values profile was elevated and differentiated, but peaked at the border of the *Hostile-Arrogant* and *Cold-Separate* octants (156°). Conversely, the sensitivities profile peaked in the *Unassured-Submissive* octant (288°), although it was also differentiated and elevated. Together these results suggest that individuals high in antagonism value appearing forceful, having the upper hand, avenging insults, and appearing cool and detached, while at the same they struggle with being too domineering in the service of these goals. They also are generally misanthropic, being bothered by most forms of interpersonal behavior, but particularly submissive and obsequious behavior.

These novel results align with recent work that has examined antagonism related constructs (e.g., Dark Triad) across multiple interpersonal surfaces, both in the general location of the scales and the consistency across surfaces (excepting sensitivities which are reflected across the IPC; Dowgwillo & Pincus, 2017). Accordingly, these findings suggest normative consistency across different surfaces, rather than discrepancies as Leary (1957) hypothesized and as others have

indicated as useful when working individually with patients (e.g., Pincus et al., 2014; Dawood & Pincus, 2016). However, future work should specifically test whether discrepancies between surfaces (e.g., mismatch between values and problems) increment the prediction of antagonism and other maladaptive dispositions using appropriate methods like response surface analysis (see Barrante et al., 2017; cf. Wright & Pincus, 2010).

In sum, dispositional research suggests that antagonism in its various forms is well situated within the various dispositional representations of interpersonal functioning (traits, problems, motivations, etc.). However, variation in the conceptualization of antagonism and scales used to measure it results in somewhat different interpersonal locations within the IPC, largely clustered around the upper left quadrant. In fact, as mentioned earlier, the broader antagonism domain encompasses diverse facets (e.g., manipulativeness, callousness, hostility) and each of these exhibits some variability in its location in interpersonal space. A full cataloging of these facets interpersonal profiles goes well beyond the scope of this chapter, but the interested reader is referred to several publications that include facet-level information (e.g., Pincus, 2002; Williams & Simms, 2016; Wright et al., 2012).

Cross-Situational Research

Moving beyond basic dispositional associations between antagonism and interpersonal functioning, it is important to examine how antagonism manifests in and across situations in perceptions and behavior. To study interpersonal behavior across situations, interpersonal researchers have made good use of ambulatory assessment techniques like EMA. Various assessment tools have been developed that measure one's own behavior as well as perceptions of others' in situations intensively and repeatedly in naturalistic settings (Moskowitz, 1994; Moskowitz & Zuroff, 2005; Woods et al., 2018). This approach has been used to study key components of the interpersonal situation as depicted in Figure 2, as well as within-person

variability across situations.

As noted above, this is an area with relatively few published findings, so the results of de novo ambulatory assessment studies are presented. An initial, and very basic question, is whether dispositional antagonism scales predict individual differences in average reported perceptions of others behavior and one's own behavior across situations. Across three EMA studies (See Table 2), the consistent finding was that antagonism, operationalized in different ways across studies, predicted perceptions of lower affiliation and lower affiliation in one's own behavior across situations, although there was some variability in effect size. No association was observed with dominance for either perceptions or one's own behavior. The findings from dispositional antagonism predicting average daily ratings of behavior were largely consistent. Therefore, it appears that the strongest effect of antagonism on interpersonal behavior is on lower affiliation and perceptions thereof. Although it would be tempting to interpret the perception findings as "bias," (e.g., Miller, Lynam, & Jones, 2008) the results remain ambiguous. That individuals who are antagonistic tend to view others as less affiliative, and by extension prompting their own quarrelsome behavior, is one possibility. However, it is also possible that they select in to less affiliative encounters or evoke lower affiliation from others (e.g., Lamkin et al., 2014). Each is an interesting possibility, and they need not be mutually exclusive, but each would have different implications for understanding and possibly intervening with antagonism. Future research should focus on disambiguating this finding.

Results for daily antagonism deviated somewhat from these findings, in that at both the daily and person levels significant but modest effects were observed for dominance. That is, on days when individuals report more antagonistic behavior, they also report being more dominant. The same is true for individual who report more daily antagonism on average (i.e., trait level as assessed by daily diary), they also report being more dominant. In contrast, effects for affiliation

were negative, but very small. Although these results are presented for completeness, it is not clear whether the measure or the assessment approach is responsible for these discrepancies. Regardless, the pattern falls well within the area of the IPC described above. That the strongest association with momentary behavior is with low affiliation, sometimes conceptualized as quarrelsomeness in the interpersonal EMA literature, suggests that Moskowitz' (2010) review of quarrelsomeness in daily life is relevant as well. The interested reader is directed to her review.

Expanding on these links between dispositional and daily antagonism and interpersonal perceptions and behavior, researchers have also examined how dispositional variables related to antagonism impact the perceptual, affective, and behavioral processes that comprise an interpersonal situation (Figure 2). Two studies in particular illustrate how the processes that lead to the expression of antagonistic behavior differ across contexts depending on the nature of their psychopathology. These studies also highlight general processes likely shared by most individuals regardless of pathology. In the first, Sadikaj and colleagues (2013) compared participants diagnosed with borderline personality disorder and community controls on their perceptions of others, negative affect, and interpersonal behavior following interactions over 21 days. Recall that borderline personality disorder is consistently associated with dispositional ratings of antagonism (Wilson et al., 2017; see also Samuel & Widiger, 2008). The authors examined differences in the within-person links between perceptions of quarrelsomeness, negative affect, and quarrelsome behavior across situations. They found that the borderline group had stronger links between perceptions of quarrelsomeness and one's own quarrelsome behavior, as well as perceptions and negative affect. For participants diagnosed with borderline personality disorder, more of their own antagonistic behavior could be explained by situational features. That is to say, for these individuals who are sensitive to others pulling away and being at odds with them, they are more likely to experience negative affect and attack in response than the average community member.

Also of note is that the link between negative affect and quarrelsomeness did not differ between groups, suggesting this is a general process; experiencing negative emotions is associated with behaving in a more hostile manner.

In similar approach, Wright and colleagues (2017) examined the impact of narcissistic personality disorder criteria on the links between perceptions of others behavior, negative affect, and one's own behavior. In a comparable manner, narcissistic pathology amplified the link between perceptions of others' behavior and negative affect during an interpersonal situation. However, in contrast to the prior study, the perceptions that lead to amplified negative affect for those high in narcissism were different. Narcissism did not amplify the link between perceptions of other's quarrelsomeness and negative affect, but rather amplified the link between perceptions of others dominance and negative affect. Accordingly, the context that "triggered" negative affect and ultimately quarrelsomeness was interacting with someone who the individual high in narcissism perceived as being dominant. Similar to Sadikaj et al.'s (2013) study, narcissism had little effect on the relationship between negative affect and one's own quarrelsomeness ($p = .044$), again suggesting this pathway is general. Combined, the results of these two studies illustrate that dispositional associations between psychopathology and antagonism may belie contextual differences in the dynamic processes that give rise to antagonistic behavior.

Within Situation Research

Recently methods have been developed to continuously assess and record the momentary interpersonal dynamics within situations (Girard & Wright, in press; Sadler et al., 2009). Sadler and colleagues (2009) showed that a joystick could be used to reliably and validly track an individual's behavior continuously, recording a location on the IPC with fine granularity (e.g., every half second). This can be used to code videos of, for example, in-lab dyadic interactions to study cooperative behavior or conflict in romantic dyads. This method places the dynamic micro-

processes that occur between individuals as they transact within a situation within a researcher's grasp. Software is available for easy implementation on most contemporary computers (Girard & Wright, in press).

Relatively little research has examined dispositional influences, including trait antagonism, on within-situation interpersonal processes. There are, however, two recent studies that provide relevant information about how antagonistic behavior manifests within situations. Hopwood and colleagues (in press) compared continuous ratings of interpersonal behavior during conflict and cooperative interactions across several laboratory studies. They found that mean ratings of behavior were lower in affiliation and higher in dominance for conflictual relative to cooperative interactions. Although these results are highly consistent with the dispositional results, they do not reflect individual differences, but rather average situational effects on behavior. When we find ourselves at odds with each other, we tend to behave as if we are someone who lives their lives at odds with others. Note that the mean of affiliation was not negative, just greatly reduced from the average in cooperative situations. Conflictual situations (relative to cooperative situations) were also characterized by lower affiliative correspondence, but stronger dominance reciprocity. Thus, the effect of conflict on interpersonal complementarity seems to erode normative affiliative matching, but amplifies dominance processes.

A second study, conducted by Ross and colleagues (2017), examined associations between momentary ratings using the *Specific Affect Rating System* (SPAFF; Gottman & Krokoff, 1989) and interpersonal behavior of both the self (actor effects) and other (partner effects). Many results emerged as predicted (e.g., *affection* and *validation* SPAFF codes were associated with higher self and other affiliative behavior in the moment), and in general complementarity patterns were strong. However, although SPAFF codes that would be considered antagonistic (*defensiveness, contempt, criticism, domineering, and stonewalling*) were largely associated with lower affiliative behavior,

as predicted, an unexpected pattern emerged for dominant behavior. Ross and colleagues found that *defensiveness, contempt, criticism,* and *domineering* were negatively associated with one's own dominance (i.e., more submissive behavior), but positively associated with a partner's dominance. In other words, these presumably antagonistic behaviors were characterized by cold-submissiveness in the context of a partner being cold and dominant, not the other way around as might be suggested by the dispositional and cross-situational study findings. One possibility worth considering, is that antagonistic behavior is enacted not when the person is in the dominant position, but when the individual feels the need to claim or regain the dominant position or undercut someone else's dominant position. This would be in line with the interpretation of Wright and colleagues (2017) on the impact of narcissism on cross-situational interpersonal behavior and affect. Taken together, these results may provide a glimpse into the motivations underlying the manifestation of antagonistic behaviors. At the same time, several caveats are warranted. For one, *stonewalling* did not follow this pattern, although behavior coded as such was exceedingly rare, raising questions about reliability of the finding. Further, these results generally should be replicated and examined in a wider group of samples and contexts (i.e., the SPAFF and interpersonal behaviors were coded during a conflict task, participants were psychiatric patients and their partners).

Conclusion and Future Directions

Interpersonal theory offers a framework for moving beyond static and dispositional understanding of antagonism to reveal the processes and possibly the mechanisms by which it manifests and is maintained. With the data that exists, it can be concluded that dispositional antagonism is well represented by low affiliation and high dominance across various levels of interpersonal functioning (goals, traits, problems, strengths, etc.). Admixtures of dominance and low affiliation vary as a function of definition and operationalization of antagonism. When

assessed using ratings of behavior in and across situations, a similar pattern emerges, although low affiliation is the stronger signal. The same can be said for perceptions of others' behavior, although it remains unclear what accounts for this effect. Emerging research suggests that antagonism as manifested in quarrelsome behavior may be in the service of addressing certain goals or in response to certain triggers that may differ across individuals.

Why do antagonistic people behave the way they do? What are they hoping to achieve? There is ample room for more research in this domain. Indeed, one thing this review highlights is that there is more left to learn about the processes underlying antagonism than we currently know. The diagram of the interpersonal situation presented in Figure 2 can be used to identify targets for future inquiry. Yet it is difficult for any one study to capture all potentially interesting components, and therefore researchers will likely need to prioritize subsets of pathways. There is also a clear need for more sophisticated assessment of motivations as they might vary across time, especially using methods that can disentangle them from behavior. There are good theoretical reasons for prioritizing interpersonal motivations when understanding an individuals' behavior and the outcome of situations (e.g., Horowitz et al., 2006). Finally, more research is needed on the development of interpersonal dispositions and patterns, especially as reinforcement processes might lead to increases or decreases of antagonism over time (e.g., Baumert et al., 2017; Wright, Pincus, & Lenzenweger, 2012).

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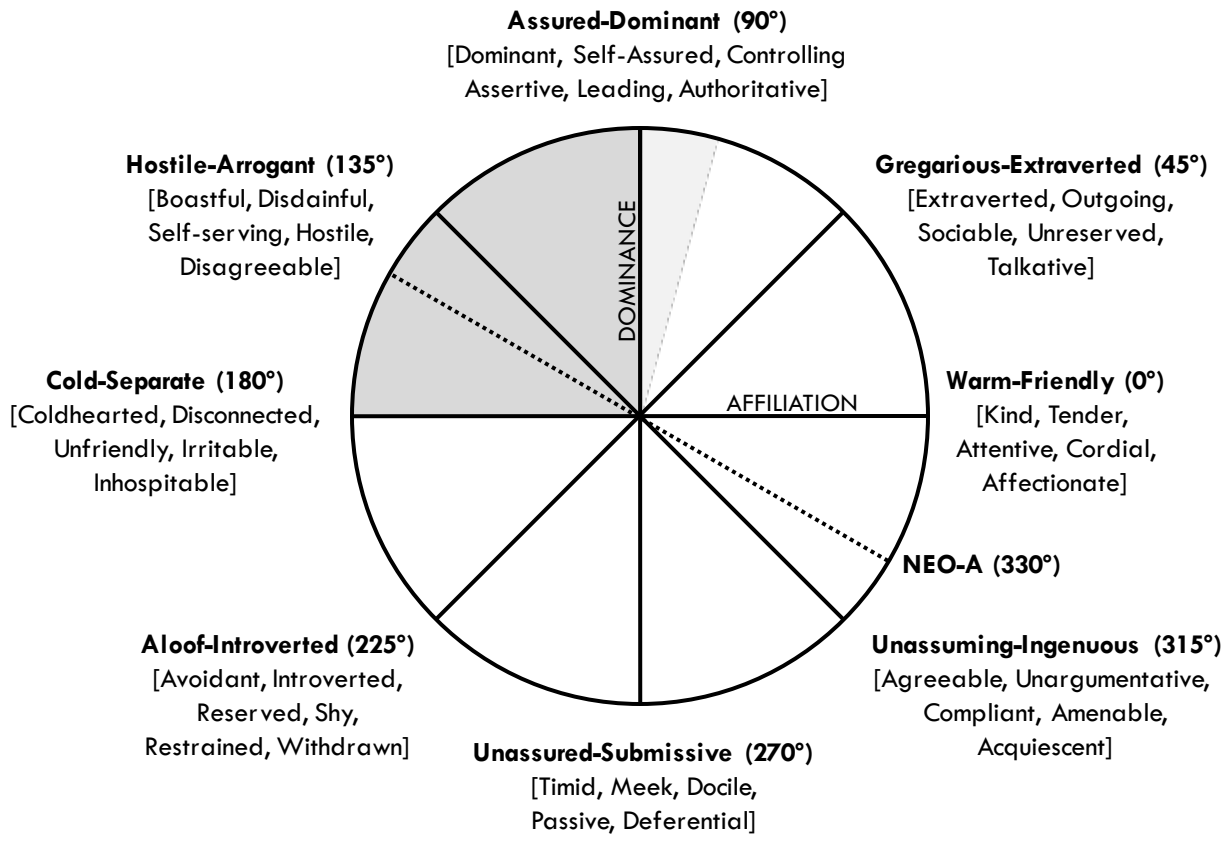

Figure 1. The interpersonal circumplex. Shading represents the area of interpersonal functioning reflective of antagonism.

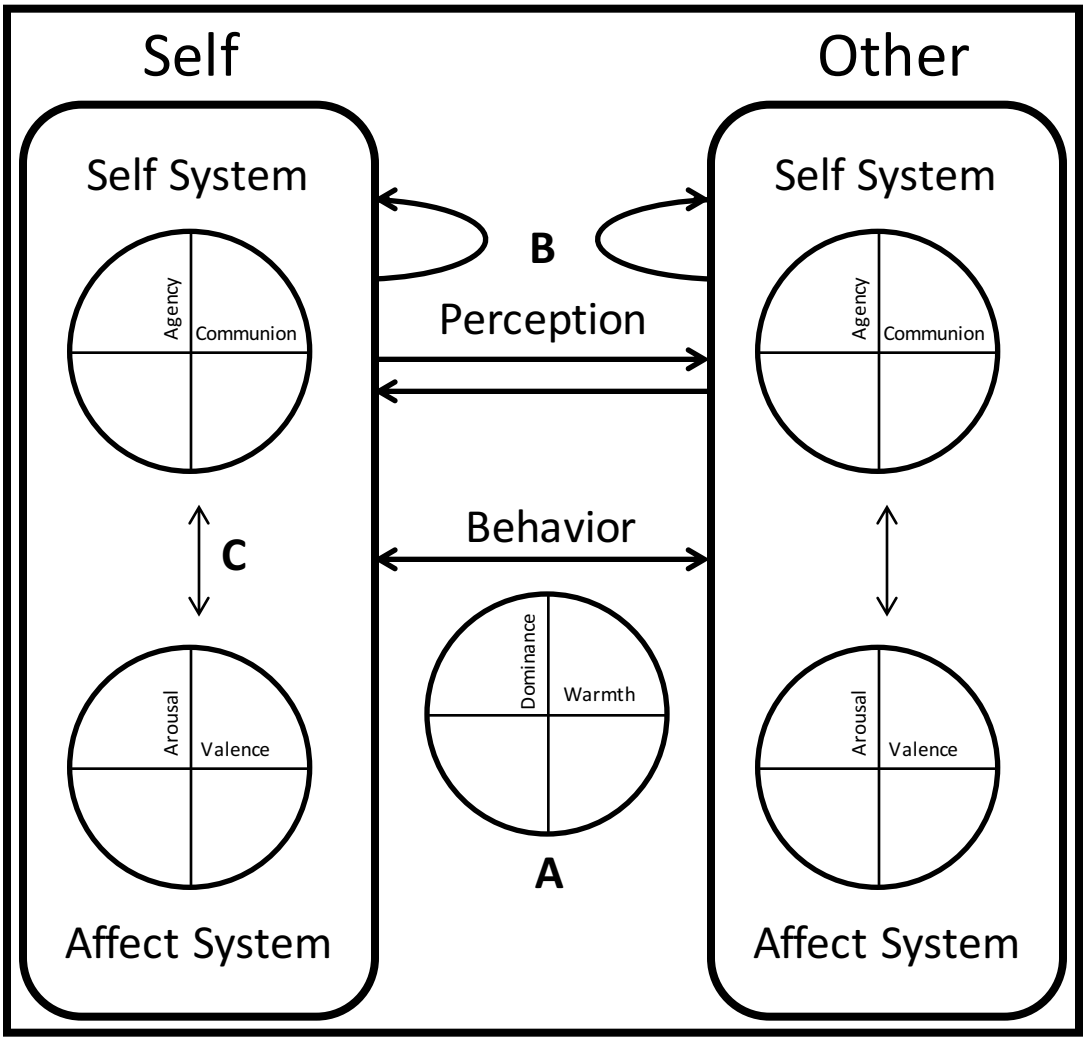

Figure 2. The interpersonal situation.

Table 1. *Structural summary of CAT-PD antagonism and interpersonal problems, values, and sensitivities.*

	Structural Summary Parameters					
	Elevation	Dominance	Affiliation	Amplitude	Angle	R^2
Problems	.24 (.18, .31)	.28 (.24, .33)	-.12 (-.16, -.07)	.31 (.26, .35)	112° (104°, 121°)	.91
Values	.25 (.18, .31)	.12 (.08, .16)	-.27 (-.32, -.22)	.30 (.25, .35)	156° (148°, 164°)	.90
Sensitivities	.19 (.12, .25)	-.15 (-.20, -.10)	.05 (.00, .10)	.16 (.11, .21)	288° (270°, 307°)	.91

Note. Point estimates and 95% confidence intervals (in parentheses) based on 2000 bootstrapped samples using R package SSM (Zimmermann & Wright, 2017) as implemented in http://r.jmgirard.com/shiny/fullcircle/ Problems = Inventory of Interpersonal Problems – Short Circumplex (Soldz et al., 1995); Values = Circumplex Scales of Interpersonal Values (Locke, 2000); Sensitivities = Interpersonal Sensitivities Circumplex Scales. R^2 = Goodness of fit to predicted sine pattern.

Table 2. *Associations between measures of antagonism and daily and momentary interpersonal behavior and perceptions*

	Dominance			Affiliation		
	β	95% CI	*p*	*β*	95% CI	*p*
Daily Diary Study						
NEO-FFI Agreeableness (reversed)	.07	(-11, .26)	.439	**-.38**	**(-.56, -.20)**	**< .001**
PID-5 Antagonism	.17	(-.03, .38)	.095	-.16	(-.35, .03)	0.097
Daily Antagonism						
Within-Person	**.24**	**(.19, .29)**	**< .001**	**-.08**	**(-.13, -.03)**	**0.002**
Between-Person	**.27**	**(.10, .44)**	**.002**	-.17	(-.38, .04)	0.119
EMA Sample 1						
CAT-PD Antagonism						
Perception of Other Behavior	.09	(-.02, .19)	.118	**-.25**	**(-.36, -.14)**	**< .001**
Self-Rated Behavior	**.16**	**(.05, .26)**	**.003**	**-.33**	**(-.43, -.22)**	**< .001**
EMA Sample 2						
BFI-2 Agreeableness (reversed)						
Perception of Other Behavior	-.09	(.06, .24)	.248	**-.24**	**(.12, .36)**	**< .001**
Self-Rated Behavior	.11	(.24, -.02)	.097	**-.30**	**(-.18, .42)**	**< .001**
EMA Sample 3						
Brief PID-5 Antagonism						
Perception of Other Behavior	-.15	(-.31, .01)	.069	**-.16**	**(-.30, -.01)**	**0.038**
Self-Rated Behavior	.05	(-.14, .24)	.591	**-.17**	**(-.31, -.02)**	**0.022**

Note. Bolded values for p < .05; Sample sizes for studies (persons/observations): Daily Diary Study = 101/8631; ecological momentary assessment (EMA) Sample 1 = 396/4956; EMA Sample 2 = 288/6905; EMA Sample 3 = 206/3606. NEO-FFI = NEO-Five Factor Inventory; PID-5 = Personality Inventory for DSM-5; Daily Antagonism = Sum of items from Exhibitionism, Hostility, and Manipulativeness scales from Wright and Simms (2016); CAT-PD = Comprehensive Assessment of Traits for Personality Disorders; BFI-2 = Big-Five Inventory – 2.