

The Interpersonal Situation:

An Integrative Framework for the Study of Personality, Psychopathology, and Psychotherapy

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(in press). In D. Funder, J.F. Rauthmann, & R. Sherman (Eds.), *Oxford Handbook of Psychological Situations*. New York: Oxford University Press

### Abstract

This chapter reviews structural and process assumptions of the Contemporary Integrative Interpersonal Theory of personality and presents the interpersonal situation as a synthetic and widely applicable framework for integrating the structure and dynamics of persons and situations. It is an interactional-dynamic perspective that is variable-centered and dimensional (agency and communion; valence and arousal), specifies the important characteristics of situations, synthesizes objective and subjective perspectives, and is applicable to multimethod, multi-informant, multi-timescale assessments *in situ*, *juxta situm*, or *ex situ* organized by the interpersonal circumplex. Emphasizing clinical implications, we review multimethod, multi-timescale empirical research employing intensive repeated measures designs (Event Contingent Recording, Continuous Assessment of Interpersonal Dynamics) supporting the interpersonal situation and its relevance for studying personality, psychopathology, and psychotherapy. We then elaborate on the utility of the interpersonal situation framework for psychotherapy practice and training. Finally, we identify future directions for advancing this contemporary interpersonal perspective on psychological situations.

*Keywords:*

Interpersonal Theory, Interpersonal Situation, Interpersonal Circumplex, Agency and Communion, Complementarity, Personality, Psychopathology, Psychotherapy, Intensive Repeated Measures, Assessment

Traditional conceptualizations of personality traits have emphasized stability and cross-situational generality and thus, until recently, research has prioritized studying the structure of between-person individual differences (Fleeson, 2012). Similarly, traditional psychiatric diagnostic practice outlined in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013) asks clinicians to assess individual differences in their patients' personalities via a categorical medical model of personality disorders that is empirically problematic and largely unhelpful for personality assessment, case formulation, treatment planning, and intervention. In contrast to these traditional approaches to personality traits and diagnoses, clinical theories of personality functioning and intervention often describe dynamic within-person processes (e.g., Beck, Davis, & Freeman, 2014; Benjamin, 2003; Wachtel, 2014; Yeomans, Clarkin, & Kernberg, 2015) that involve an interaction between the patients and the situational contexts within which their symptoms emerge (Os, Delespaul, Wigman, Myin-Germeys, & Wichers, 2013; Pincus, Lukowitsky, Wright, & Eichler, 2009; Roche & Pincus, 2016). Structure and process models, in isolation, fail to provide a full picture of human functioning (DeYoung, 2015; Fleeson & Jayawickreme, 2015; Pincus & Wright, 2011) and are particularly ill-suited for clinical applications (Wright, 2011, 2014; Wright & Hopwood, 2016). Coupling evidence-based models of personality structure (e.g., Fournier, Moskowitz, & Zuroff, 2011; Harkness, Reynolds, & Lilienfeld, 2014; Wright & Simms, 2014) with evidence-based models of the dynamic processes underlying personality, psychopathology, and clinical intervention (e.g., Ebner-Premier, Eid, Kleindienst, Stabenow, & Trull, 2009; Roche, Jacobson, & Pincus, in press; Thomas, Hopwood, Woody, Ethier, & Sadler, 2014; Wright & Simms, 2016) offers the basis for a revolutionary integration of personality and clinical science (Hopwood, Zimmerman, Pincus, & Krueger, 2015; Krueger, 2013). This chapter presents an interpersonal

framework for conceptualizing situations that connects empirically supported personality and affect structures and empirically supported personality process for the integrative study of personality, psychopathology, and psychotherapy (Hopwood, Pincus, & Wright, in press).

This approach is guided by three key assertions about the psychology of situations (Rauthmann, Sherman, & Funder, 2015) with which we agree. First, *psychology needs guiding principles of what situations are and how they operate*. We use the Contemporary Integrative Interpersonal Theory of personality (CIIT; Dawood, Dowgwillo, Wu, & Pincus, in press; Pincus, 2005; Pincus & Ansell, 2013) to identify the important features and operational dynamics of situations. Second, *we should tailor different situational taxonomies to our research needs*. Thus, we recognize our explicitly clinical emphasis and present the interpersonal situation as a framework that is particularly useful for research and practice in clinical assessment and treatment contexts (Hopwood et al., 2016; Pincus, 2010; Pincus, Lukowitsky, & Wright, 2010; Pincus et al., 2014). Third, *psychological experiences of situations matter*. The particular meaning of a current interpersonal situation is made by a person via a dynamic integration of internally arising experience and selected external features of the environment that becomes conscious via intertwined perceptual, cognitive, affective, and motivational processes (Hopwood, Wright, Ansell, & Pincus, 2013; Pincus & Hopwood, 2012).

### **Contemporary Integrative Interpersonal Theory**

Many overviews of the near 70-year history of interpersonal theory and research are available for interested readers (e.g., Pincus, 1994; Strack & Horowitz, 2011; Wiggins, 1996). Its origins are found in Harry Stack Sullivan's (1953a, 1953b, 1954, 1956, 1962, 1964) interpersonal theory of psychiatry, which defined personality as "the relatively enduring pattern of recurrent interpersonal situations which characterize a human life" (Sullivan, 1953b, p. 110–

111), as well as the Berkeley/Kaiser Group's (LaForge, 2004; Leary, 1957) empirical operationalization of Sullivan's ideas into an empirically validated formal geometric model of personality and social behavior, the interpersonal circumplex (IPC).

The interpersonal legacy that emerged from Sullivan's and Leary's work is now in its fifth generation and has dramatically evolved in level of theoretical integration, methodological sophistication, scope, and application. CIIT consolidates these advances into a paradigm (Wiggins, 2003), or a meta-theory (Pincus & Ansell, 2013), for psychological science. CIIT provides an evidenced-based model of personality structure linked with dynamic social-cognitive, affective, and behavioral processes that offers a scientifically grounded framework to generate testable hypotheses regarding personality (Dowgwillo & Pincus, in press; Erickson, Newman, Peterson, & Scarsella, 2015; Fournier, Moskowitz, & Zuroff, 2008, 2009; Wiggins & Broughton, 1985), psychopathology (Cain et al., 2012; Horowitz, 2004; Pincus & Wright, 2011), and health (Cundiff, Kamarck, & Manuck, 2016; Smith & Cundiff, 2011) as well as implications for conducting psychological assessment (Hopwood et al., 2016; Pincus, 2010; Pincus et al., 2014) and psychotherapy (Anchin & Pincus, 2010; Benjamin, 2003; Cain & Pincus, 2016; Pincus & Cain, 2008). In the next section, we lay out the specific structural assumptions of CIIT.

### **Structural Assumptions**

In a comprehensive review and integration of the interpersonal nature and relevance of Bakan's (1966) meta-concepts of *agency* and *communion*, Wiggins (1991, 1997a, 2003) argued that these two superordinate dimensions have propaedeutic explanatory power across scientific disciplines. *Agency* refers to the condition of being a differentiated individual, and it is manifested in strivings for power and mastery that can enhance and protect one's differentiation. *Communion* refers to the condition of being part of a larger social or spiritual entity, and is

manifested in strivings for intimacy, union, and solidarity with the larger entity. Bakan (1966) noted that a key issue for understanding human existence is to comprehend how the tensions of this duality in our condition are managed. As can be seen in Figure 1—Top, these “meta-concepts” form a superordinate structure used to derive explanatory and descriptive concepts at different levels of specificity. At the broadest and most interdisciplinary level, agency and communion classify the interpersonal motives, strivings, and values of human relations (Horowitz, 2004). In interpersonal situations, motivation can reflect the agentic and communal nature of the individual’s long-term strivings, or more specific agentic and communal goals (e.g., to be in control; to be close) that specific behaviors are enacted to achieve (Grosse Holtforth, Thomas, & Caspar, 2011; Horowitz et al., 2006).

The agency and communion meta-framework scaffolds the interpersonal circumplex (IPC) model of interpersonal dispositions (Figure 1—Bottom). The intermediate level of dispositions includes an evolving set of interpersonal constructs including general traits, problems, impacts, strengths, sensitivities, efficacies, and values (Hopwood et al., 2011; Locke, 2011). Agentic and communal dispositions imply enduring patterns of perceiving, thinking, feeling, and behaving that are probabilistic in nature, and describe an individual’s interpersonal tendencies aggregated across time, place, and relationships. An individual’s interpersonal dispositions, when understood in relation to their motives and goals, are assumed to give rise to variations in adaptive and maladaptive behavior that are contextualized yet consistent across relevant interpersonal situations (Horowitz & Wilson, 2005; Wiggins, 1997b). Thus, IPC models can describe a person’s typical ways of relating to others and refer to their interpersonal style.

At the most specific level, the structure can be used to classify the nature and intensity of specific interpersonal behaviors (Moskowitz, 1994, 2005, 2009). At the level of specific

behaviors, interpersonal description permits moment-to-moment and transactional analyses of unfolding interpersonal processes. Thus, the structural assumptions of CIIT provide a “key conceptual map” (Kiesler, 1996, p. 172) for an interpersonal description of personality structures *and* personality processes. In the next section, we lay out the specific process assumptions of CIIT.

### **Process Assumptions**

The core process assumption of CIIT is that the most important expressions of personality and psychopathology occur in phenomena involving more than one person. Sullivan (1953a, 1953b) suggested that individuals live in communal existence with the social environment and express integrating tendencies which bring people together in the mutual pursuit of satisfactions (generally a large class of biologically grounded needs), security (i.e., anxiety-free functioning), and self-esteem. A potential misinterpretation of the term “interpersonal” is to assume it refers to a limited class of phenomena that can be observed only in the immediate interaction between two proximal people. In contrast, CIIT assumes interpersonal functioning occurs not only between people, but also inside the mind via the social-cognitive capacity for mental representation of self and others (e.g., Benjamin, 2003; Blatt, Auerbach, & Levy, 1997; Lukowitsky & Pincus, 2011). Interpersonal situations (i.e., those involving self and others) occur in perceptions of contemporaneous relationships and social interactions, memories of past relationships and social interactions, dreams and fantasies of relationships and social interactions, and expectations of future relationships and social interactions. Both proximal and mentally represented interpersonal situations continuously influence an individual’s learned relational strategies, regulatory functioning, and self-concept.

Interpersonal processes involve patterns of perceiving, interpreting, feeling, and behaving over time. These patterns are socially reinforced through various transactional influences impacting self and others throughout development as they resolve, negotiate, exacerbate, or terminate the unfolding interpersonal situations that make up human life. Interpersonal behaviors probabilistically invite or evoke delimited classes of responses from the other in a continual, dynamic transactional process. Thus, reciprocal interpersonal patterns are the consistent agentic and communal behavioral responses to the perceived agentic and communal characteristics of others in an interpersonal situation (Hopwood et al., in press; Pincus et al., 2010; Roche, Pincus, Rebar, Conroy, & Ram, 2014).

The IPC provides conceptual anchors and a lexicon to systematically describe reciprocal interpersonal patterns. The most basic of these patterns is referred to as interpersonal complementarity (Carson, 1969; Kiesler, 1983). Interpersonal complementarity occurs when the agentic and communal needs of both persons are met in the interpersonal situation, leading to stability and likely recurrence of the pattern. Complementarity is defined via the IPC based on the social exchange of status (agency) and love (communion) as reflected in oppositeness for the vertical dimension (i.e., dominance pulls for submission; submission pulls for dominance) and sameness for the horizontal dimension (friendliness pulls for friendliness; hostility pulls for hostility). Although complementarity is neither the only reciprocal interpersonal pattern that can be described by the IPC nor a proposed universal law of social interaction, empirical studies consistently find support for its probabilistic predictions (Sadler, Ethier, & Woody, 2011). This research suggests that complementarity should be considered a common baseline for the reciprocal influence of interpersonal behavior associated with healthy socialization. Thus, deviations from complementary interpersonal patterns are more likely to require self and other to

renegotiate the interpersonal situation. Chronic deviations from complementarity are more likely to disrupt interpersonal relations or be self-destructive or costly, perhaps indicative of pathological personality functioning (Hopwood et al., 2013; Pincus et al., 2009; Roche, Pincus, Conroy, Hyde, & Ram, 2013).

Consistent with social-cognitive (Shoda, Mischel, & Wright, 1994) and object relations (Kernberg, 1995) personality process models, CIIT proposes that mediating internal psychological features (e.g., self–other schemas, motives and needs embedded in these schemas, and emerging emotional experiences) influence the likelihood of complementary interpersonal patterns (Pincus, 2005). Chronic deviations from normative social processes suggest impairments in: (1) recognizing the consensual understanding of interpersonal situations, (2) adaptively communicating one’s own interpersonal needs and motives, and (3) comprehending the needs of others and the intent of their interpersonal behavior. In such cases, the individual may react chaotically or rigidly pull for responses that complement his or her own interpersonal behavior, but have significant difficulty replying with responses complementary to others’ behavior. This reduces the likelihood that the agentic and communal needs of both persons will be satisfied in the interpersonal situation (Hopwood et al., 2013; Horowitz et al., 2006). Normality and psychopathology are understood in terms of the absence, presence, and pervasiveness of these kinds of disturbances (Pincus & Hopwood, 2012; Pincus & Wright, 2011).

### **Integrating Structure and Process: The Interpersonal Situation**

*I had come to feel over the years that there was an acute need for a discipline that was determined to study not the individual organism*

*or the social heritage, but the interpersonal situations through which persons manifest mental health or mental disorder.*

—Sullivan (1953b, p. 18)

The interpersonal situation is a framework for the study of personality, psychopathology, and psychotherapy that integrates the structural and process assumptions of CIIT (Dawood et al., in press; Hopwood et al., in press). Specifically, i) interpersonal situations involve two or more people (proximal or mentally represented) and are among the strongest situations we experience in life, and ii) the important psychological characteristics interpersonal situations are the perceptions of agentic (dominant-submissive) and communal (warm-cold) behaviors of self and other within and across social interactions. More formally, Pincus and Ansell (2003) defined the interpersonal situation as “the experience of a pattern of relating self with other associated with varying levels of anxiety (or security) in which learning takes place that influences the development of self-concept and social behavior” (p. 210). Therefore, it is the dynamically unfolding context in which social learning takes place across the lifespan, promoting personality organization, development, and adjustment.

Interactions with others develop into increasingly complex patterns of interpersonal experience that are encoded in memory, giving rise to mental representations of self and others as well as to enduring patterns of adaptive or disturbed interpersonal relating. Individual variation in learning occurs due to the interaction between the developing person’s level of cognitive maturation and the facilitative or toxic characteristics of the interpersonal situations encountered. In both proximal interactions and mental representation, the affective valence associated with an interpersonal situation is a function of one’s ability to satisfy basic motives

for interpersonal security (communion) and self-esteem (agency). When agentic and communal needs are satisfied, the interaction is pleasant and the behavior is reinforced; when these needs are frustrated, it is unpleasant, prompting dysregulation and distress as well as a need to cope and adapt (Horowitz et al., 2006; Kiesler, Schmidt, & Wagner, 1997; Pincus & Hopwood, 2012).

In Figure 2, we present a model that builds upon the IPC to account for the structure of interpersonal situations. Both self and other are depicted and both include their own self and affect systems (it is important to recall that the other may either be a proximal individual or a mental representation). The *self system* is organized by underlying agentic and communal interpersonal motives (Grosse Holtforth et al., 2011; Horowitz et al., 2006) that lead to behavioral styles, aversions, problems, and capabilities via social learning. Identity, self-concept, and self-worth vary per the degree to which interpersonal motives are satisfied. The *affect system*, which is structured by affective arousal and valence (Posner, Russell, & Peterson, 2005), has a highly sensitive and dynamic relationship with the self-system that is indicated by the bidirectional arrows between the interpersonal and affective circles within the self and the other. For instance, emotional experiences provide critical feedback regarding motive satisfaction that can color and intensify or dull interpersonal behavior. In turn, interpersonal behavior modulates affective experiences via the achievement of interpersonal goals.

The *interpersonal field* encapsulates the relationship between the self and other (Wiggins & Trobst, 1999) and is the arena for social exchange (Carson, 1969). Each person's independent perceptions of self (curved arrows) and other (unidirectional arrows) are represented as inputs, perceived in terms of their agentic and communal behaviors and impacts. The specific behaviors enacted within the field, also organized in terms of agentic and communal qualities, are indicated by the bidirectional arrow between self and other (serving simultaneously as input and output).

Overall, the integration of structure and process of the interpersonal field is best captured by the entirety of the interpersonal situation as indicated by the box outlining the figure. Within the interpersonal field, perceptual processes moderate the functioning of the self system, affect system, and behavior.

The interpersonal situation provides a theoretically informed framework based on empirically validated trait structures (interpersonal and affect circles) and empirically validated dynamic interpersonal processes (reciprocal patterns/complementarity). Research using the interpersonal situation framework specifies inputs, mediators, and outputs of clinical interest and importance and provides a systematic lexicon to organize objective and subjective perspectives. Importantly, the interpersonal situation embodies several recommendations for the study of situations suggested by Rauthmann and colleagues (2015). It is an interactional-dynamic perspective that is variable-centered and dimensional (agency and communion; valence and arousal), focuses on and specifies the important characteristics (i.e., perceived cues) of situations, synthesizes objective and subjective perspectives, and is applicable to multimethod, multi-informant, multi-timescale assessment *in situ*, *juxta situm*, or *ex situ* (Pincus et al., 2014).

### **Normal and Disturbed Interpersonal Functioning**

In CIIT, normal and disturbed interpersonal functioning are understood with reference to the level and pervasiveness of regulation/dysregulation and accuracy/distortion in interpersonal situations (Pincus, 2005; Pincus & Hopwood, 2012). The particular functional or dysfunctional interpersonal style is characterized by consistent relational *patterns of regulation and perception*, that is, input–intermediary–output chains encompassing perception, interpretation, motivation, affect, and behavior in the interpersonal situation (Hopwood et al., 2013, Wright, 2014). There are several potential foci that are elaborated in Figure 3.

**Regulation/Dysregulation.** The ability to mutually communicate and satisfy the agentic and communal motives and goals of self and other (i.e., develop, maintain, and modify complementary interpersonal patterns over time) promotes positive affect, self-esteem, and successful interpersonal relations. Failure to effectively communicate and satisfy agentic and communal motives and goals in interpersonal situations causes dysregulation in the self (e.g. ego threat), affect (e.g., anger), and the interpersonal field (e.g., hostility). *Self regulation* involves the ability to effectively manage one's social cognition and self-concept, or how one thinks about oneself in relation to others in interpersonal situations (Sullivan, 1953b). *Affect regulation* involves the ability to modulate one's inner emotional states and affective expression (Gratz & Roemer, 2004), or how one feels in interpersonal situations. *Field regulation* involves modulating the processes by which one relates to others in interpersonal transactions, or how one behaves and impacts others' behavior in interpersonal situations (Kiesler et al., 1997; Wiggins & Trobst, 1999). One way to organize these concepts is that self, affective, and field regulation domains correspond to how one thinks about oneself and others, feels about oneself and others, and behaves in interpersonal situations.

**Accuracy/Distortion.** To successfully communicate and satisfy agentic and communal motives and goals in interpersonal situations, individuals must accurately perceive the important cues they are sending and receiving. Sullivan (1953b) proposed the concept of "parataxic distortion" to describe the influence of internally determined misinterpretations of the interpersonal behavior and affect of self and other. Distortions are thought to occur when one's mental representation of an interpersonal situation does not match an objective interpretation of the situation, instead fitting the contours of an alternative, internal, and psychologically impactful or conflictual schema that is often threatening or painful. In this sense, disturbed

interpersonal relations can oftentimes be understood as a logical response to a misperception, deeply rooted in an individual's social learning history (Benjamin, 1996; Pincus & Hopwood, 2012).

To bring this model to life, consider the paranoid individual and the recurrent interpersonal situation that characterizes his/her life (Figure 4). Because the paranoid individual is high on the trait of suspiciousness, he/she is hypervigilant to threats from others and tends to distort perceptions of their behavior and motivation. For example, the coworker who genuinely offers collaboration is perceived as trying to steal ideas or unfairly take credit. This distorted view of the other evokes dysregulated affect (anger), the motive to protect the self (remove the threat), and hostile interpersonal behavior that is consistent with the distortion and dysregulation but inconsistent with the agentic and communal goals of the rebuffed coworker. Distortion and dysregulation in interpersonal situations may be episodic and stress-induced (e.g., exhaustion and illness may create a transient state of hypersensitivity) or chronic and pervasive (e.g., paranoid personality disorder or delusional disorder).

### **Studying the Interpersonal Situation in Personality, Psychopathology, Psychotherapy**

Research investigating aspects of the interpersonal situation presented in this chapter commonly employs intensive repeated measurement of interpersonal perception and behavior at different timescales (Pincus et al., 2014). Several studies employ experiencing sampling methods using event contingent recording (ECR; Moskowitz & Sadikaj, 2012) designs to examine interpersonal functioning in social interactions in daily life (Moskowitz, Russell, Sadikaj, & Sutton, 2009). Another method growing in popularity involves Continuous Assessment of Interpersonal Dynamics (CAID; Sadler, Ethier, Gunn, Duong, & Woody, 2009) to model the moment-to-moment unfolding of interpersonal behavior in dyadic interactions.

### **Event-Contingent Recording Studies**

ECR designs ask participants to record their perceptions of their own and the other's agency (dominance—submission) and communion (warmth—distance), as well as affects, symptoms, functioning, and contextual factors, for each face to face social interaction over the course of days or weeks using either paper-and-pencil or electronic surveys. Such studies generate data to examine various aspects of the interpersonal situation as conceived of in CIIT. For example, one basic question is whether individual differences in personality traits or psychopathology impact interpersonal perception. Results suggest they do. For example, in a 7-day ECR study (Roche, Pincus, Hyde, Conroy, & Ram, 2013), individuals high in narcissism tended to see others as less communal whereas individuals high in dependency tended to see others as more agentic across social interactions. In the same study, the authors found that personality traits influenced the covariation of perceived agency and communion in theoretically predictable ways. Specifically, individuals high in dependency tended to view agentic behavior by others as concurrently more communal while individuals high in narcissism tended to view agentic behavior by others as concurrently less communal. In a 21-day ECR study of clinical outpatients (Pincus, Dowgillo, Levy, Wilson, & Newman, 2016), general severity of personality pathology was associated with perceiving self and others as agentic across social interactions.

CIIT asserts that the perceived agentic and communal behaviors and goals of others are the most salient cues in interpersonal situations (see also Asendorpf, this volume), giving rise to reciprocal interpersonal patterns. These patterns (i.e., associations between interpersonal perception and behavior) have also been investigated via ECR designs. The most common reciprocal interpersonal patterns examined empirically reflect the dynamics of interpersonal

complementarity (i.e., sameness and oppositeness). In a 20-day ECR study (Fournier et al., 2008, 2009) of community dwelling adults' social interactions, the complementary themes of oppositeness along the dimension of agency (e.g., meeting dominance with submissiveness) and sameness along the dimension of communion (e.g., meeting friendliness with friendliness) were confirmed. A similar ECR study (Moskowitz, Ringo Ho, & Turcotte-Tremblay, 2007) also examined role of status relative to the interaction partner and where the interaction took place (e.g., work versus non-work setting). The authors reported individuals were more likely to exhibit communal complementarity (meeting friendliness with friendliness or meeting hostility with hostility) when not at work and when in a high-status work role. Agentic complementarity (meeting dominance with submission or meeting submission with dominance) was only found in work settings, and this effect strengthened when the individual was in the high-status work role. In contrast, a 7-day ECR study (Roche, Pincus, Conroy et al., 2013) examined whether non-complementary interpersonal patterns are related to psychopathology and found that pathological narcissism moderated the relationship between interpersonal perceptions and behaviors. Individuals high in narcissistic grandiosity tended to respond to perceiving dominance and friendliness in others with increased dominant behavior themselves (i.e., a non-complementary pattern on dominance). However, the same individuals responded in a complementary fashion (lower dominance) when the other was perceived as dominant and unfriendly.

Research has also examined individual's emotions, symptoms, and functioning in relation to perceptions of self and others' interpersonal behavior in student, community, and clinical samples. In a 7-day ECR study with college students (Conroy, Ram, Pincus, & Rebar, 2015), perception of communion in others was associated with the experience of less guilt and more hubristic pride. In a 7-day ECR study with college students (Wang et al., 2014), the association

between perceiving others as submissive and negative affect was higher in dependent individuals compared to those low in dependency. In a 14-day ECR study of female college students with disordered eating behaviors (Ambwani, Roche, Minnick, & Pincus, 2015), binge eating episodes decreased when submissive participants perceived others as dominant and when dominant participants perceived others as submissive (following principles of complementarity).

In a 20-day ECR study of community dwelling adults (Sadikaj, Moskowitz, & Zuroff, 2011), the association between perceiving others as less friendly and negative affect was stronger for individuals higher on attachment anxiety and was weaker for individuals higher on attachment avoidance, and these effects were more pronounced in interactions with a romantic partner than with other persons. In a 21-day ECR study of community dwelling adults Rappaport, Moskowitz, and D'Antono (2014) found that although symptoms of anxiety and depression were both related to quarrelsome and submissive behavior, anxiety was also associated with within-person variability in interpersonal behavior while depression was not. In a 14-day ECR study of community dwelling adults (Ansell, Laws, Roche, & Sinha, 2015) increased hostile behaviors and perceptions of hostility in others occurred on days the participants used marijuana compared to days when marijuana was not used.

In a 20-day ECR study (Sadikaj, Russell, Moskowitz, & Paris, 2010), patients diagnosed with borderline personality disorder (BPD), relative to community controls, reported a greater increase in negative affect when they perceived others as less friendly and a smaller increase in positive affect when they perceived others as more friendly. This increased negative affect contributed to increased quarrelsome behavior in patients, instigating a cycle of negative transactions (Sadikaj, Moskowitz, Russell, Zuroff, & Paris, 2013). Similarly, in a 20-day ECR study (Sadikaj, Moskowitz, Russell, & Zuroff, 2015), compared to community controls,

individuals diagnosed with social anxiety disorder had a stronger association between perceiving unfriendly behavior in others and experiencing embarrassment, and increases in embarrassment accounted to a greater degree for the effect of perceived unfriendly behavior on the patient's submissive behavior than control group.

In addition to studies that have highlighted the importance of communal processes and interpersonal affiliation/disaffiliation for certain forms of psychopathology (e.g., BPD), other studies have demonstrated the importance of perceptions of others' dominance. For instance, in a 21-day ECR with psychiatric outpatients, Wright, Stepp, et al. (2016) found that narcissistic personality disorder (NPD) features amplified negative affect in response to perceptions of others as dominant, which in turn predicted the patient's own quarrelsome behavior (i.e., a moderated mediation effect). Distinct from BPD, NPD features did not have the same effect on the affective responses to perceptions of others' quarrelsomeness. In a 21-day ECR with clinical outpatients (Pincus et al., 2016), severity of personality pathology moderated the associations of perceived agency and emotions, symptoms, and functioning following social interactions. Specifically, compared to patients low in severity of personality pathology, when patients with higher severity perceived others as passive, submissive they were less happy, more stressed and anxious, and experienced more functional impairment (e.g., less ability to complete important tasks and relate well with others). Also, compared to patients low in severity of personality pathology, when patients with higher severity perceived themselves as passive, submissive they were more irritable and stressed, had lower self-esteem, and experienced more functional impairment.

### **Continuous Assessment of Interpersonal Dynamics Studies**

The ECR studies reviewed above focus on cross-situational behavior. However, important interpersonal dynamics are also revealed in the interplay between individuals over the course of a social interaction. As an interaction unfolds over time, an observer can perceive and reliably code various entrainments and temporal patterns, which crucially link the two interactants. Capturing these rich perceptions for scientific study, however, is a considerable challenge that historically has been addressed by either summing or averaging ratings of behavior to describe an interaction as a whole or by rating each detail of the interaction individually. In the first instance, knowledge of the timing of the interpersonal behaviors and how they are linked to situational variables, including the interpersonal behaviors of the other person, are lost. In the second, the sense of a social interaction as a continuous transactional exchange is lost and the acts tend to become decontextualized as they are isolated from the communication flow. To address these difficulties, computer-based CAID methods (Sadler et al., 2009; Ross et al., 2016) were developed to allow researchers to follow and rate the unfolding interaction in the same way that they experience it and to record their moment-to-moment impressions of each person's agentic and communal stance within the context of the larger interaction. Rather than recollecting and aggregating behaviors, the observer simply rates what is happening at the moment of observation. And rather than ignoring context, the observer's ratings are informed by the ways in which what came before in a social interaction affects the interpersonal construal of an observed behavior. Moreover, with this technique the temporal dimension, rather than being ignored or temporarily set aside, is a fully integral aspect of the assessment data obtained.

The CAID method uses the structural model of the IPC as a parsimonious framework in which dynamic changes in interpersonal behavior are represented as trajectories. In order to

translate the observer's moment-to-moment perceptions into these trajectories, a computer joystick is used in conjunction with a joystick monitoring program (Girard & Wright, 2016; Lizdek, Sadler, Woody, Ethier, & Mallat, 2012). The observer watches a video of a social interaction on the computer monitor, focuses attention on one person, and uses the joystick position to continuously indicate the moment-to-moment rating of that person's social behavior on the circumplex surface. Thus, the position of the joystick relative to the origin captures the target person's momentary interpersonal stance on the IPC and the distance from the origin captures the momentary intensity of that interpersonal stance. As the observer indicates moment-to-moment changes in interpersonal behavior, the computer records the joystick position frequently (e.g., every half-second). Therefore, the resulting data provide a dense sampling of the reasonably continuous trajectory of the target person's behavior over time on the IPC. Later, the observer re-watches the video, but this time provides a trajectory of the interaction partner's interpersonal behavior over the course of the interaction. Because the continuous trajectories for both interaction partners are exactly coordinated in time, they can be combined to represent and study the various patterns of entrainment that link the interpersonal behavior of the two parties. Thus, the data produced from the CAID method are inherently dyadic with the interpersonal behavior of each person in the interaction providing an inseparable context for the interpersonal behavior of the other, consistent with the interpersonal situation framework.

Several studies have demonstrated the promising nature of the CAID method for the assessment of interpersonal behavior. In initial work (Sadler et al., 2009), observers recorded the moment-to-moment levels of agency and communion for 50 previously unacquainted mixed-sex dyads working on a collaborative task. Results revealed that many dyads developed interesting rhythmic patterns that were distinguishable from global, overall shifts in interpersonal behavior.

In particular, dyad members' shared behavior cycles had roughly the same frequency, with strongly correlated moment-to-moment variations in extremity. Moreover, their affiliation cycles tended to be strongly in phase (with peaks and troughs occurring simultaneously) reflecting complementary sameness (Figure 5—Top), and their dominance cycles tended to be strongly out of phase (with peaks of one person coinciding with troughs of the other) reflecting complementary oppositeness (Figure 5—Bottom). Furthermore, entrainment on affiliation was uncorrelated with entrainment on dominance. Of relevance, dyads varied considerably in their degree of entrainment, ranging from virtually none to virtually the maximum possible. It is likely that individual differences in personality are among the factors associated with this variation.

The CAID method has been employed to examine associations between moment-to-moment interpersonal dynamics in speed and quality of task collaboration, finding that female dyads with higher affiliative entrainment (communal complementarity) tended to complete collaborative tasks faster and with higher quality (Markey, Lowmaster, & Eichler, 2010). Studies of student-teacher interactions (Pennings et al., 2014; Pennings & Mainhard, 2016) found that different teachers could be identified by unique teacher-student trajectories as well as patterns and phase of entrainment. A novel study (Ross et al., 2016) using both CAID and the Specific Affect Coding System (SPAFF; Gottman, McCoy, Coan, & Collier, 1995) to rate interactions between romantic couples found that several affect codes had clear interpersonal signatures, and actor and partner effects for those codes were strongly consistent with interpersonal theory's principle of complementarity. The authors concluded their findings reveal points of convergence and divergence in the two systems and provide support for central tenets of interpersonal theory.

Mother-child interactions have also been examined using CAID methods. For example, patterns of interpersonal interaction were different if a child or mother carried an ADHD

diagnosis or not (Nilson, Lizdek, & Either, 2015). Elevated ADHD symptoms, in both mothers and children, were associated with less overall affiliative interpersonal behavior. Further, although dyads generally showed complementary interpersonal behavior, dyads in which the child had elevated ADHD symptoms demonstrated less complementarity on the affiliation dimension. Finally, the higher the child's ADHD symptoms, the less affiliative and less dominant the mother became over the course of the interaction. A study of behavior genetics and mother-child interactions (Klahr, Thomas, Hopwood, Klump, & Burt, 2013) found that maternal control, but not maternal warmth, was influenced by evocative gene-environment correlational processes, such that genetic influences on maternal control and child control were largely overlapping. Moreover, these common genetic influences were present both cross-sectionally and over the course of the interaction. A study of the impact of depression on marital interaction using CAID methods (Lizdek, Woody, Sadler, & Rehman, in press) found that wives' depressive symptoms were related to alterations in the dynamics of dominance, whereas the husbands' depressive symptoms were related to alterations in the dynamics of affiliation. For example, more symptomatic wives increased more in dominance over the interactions and their husbands decreased in dominance. In contrast, the higher the husband's depressive symptoms, the less affiliative both the wife and husband became over the interaction and the less entrained the partners were on affiliation.

Several studies have examined interpersonal processes in psychotherapy using the CAID method. For example, like teacher-student dyads, different modalities of psychotherapy and different therapists can be distinguished by unique therapist-patient trajectories, and patterns and phase of entrainment (Sadler, Woody, McDonald, Lizdek, & Little, 2015; Thomas et al., 2014). In a study of in-session therapeutic alliance and interpersonal behavior (Altenstein, Krieger, &

Grosse Holtforth, 2013), deviations from complementarity were associated with patients' increased emotional arousal, whereas a positive alliance was related to affiliative patient behavior. Moreover, marginally significant trends suggested that refraining from answering to the complementary pull of patient hostility might benefit both the alliance (see also Henry, Schacht, & Strupp, 1990). Overall, multilevel growth modeling revealed a significant cubic trend of complementarity over the course of the session. CAID methodology has also confirmed the notion of parallel processes in clinical supervision (Tracey, Bludworth, & Glidden-Tracey, 2012).

### **Summary**

Research examining interpersonal perception and behavior in social interactions at both daily and moment-to-moment timescales provide support for the assumptions of CIIT and for various aspects of the interpersonal situation itself. At both timescales, interpersonal complementarity is common and psychopathology (e.g., binge eating, depression, narcissism, ADHD) is associated with deviations from complementary interpersonal patterns. Additionally, interpersonal perception and behavior are associated with affect, symptoms, and functioning in and following social interactions, consistent with the interpersonal situation framework. Importantly, individual differences in personality and psychopathology moderate these associations in theoretically consistent and clinically relevant ways. Finally, different approaches to psychotherapy and critical therapeutic processes and events can be successfully modeled from the perspective of the interpersonal situation. This final point is crucial as we see clinical assessment and psychotherapy as inherently interpersonal in nature such that CIIT and the interpersonal situation are not only applicable to clinical research but to clinical practice as well.

### **The Interpersonal Situation in Psychotherapy Practice and Training**

Contemporary integrative interpersonal psychotherapy (Cain & Pincus, 2016; Pincus & Cain, 2008) stands out from other models of psychotherapy by integrating a focus on situationally-contextualized processes with an evidence-based framework for articulating and measuring key variables. Although there are notable exceptions, other treatment approaches tend to cluster closely to one of two prototypes. The first, more “academic” approach emphasizes a manualized model in which a suite of intervention techniques with a common theoretical source is packaged to address concerns associated with a diagnostic category (e.g., cognitive-behavioral therapy for depression—Dobson, 2016). This approach fits the zeitgeist of randomized controlled trial designs, and thus has caché in the evidence-based treatment literature. The second, more “applied” approach focuses on intersubjective experiences and idiographic nuances of patient-therapist dyads. This approach, which eschews diagnostic labels in favor of dynamic processes that occur as the psychotherapy unfolds, has caché among applied practitioners who have come to believe through their experience that each patient differs in ways that cannot be easily summarized by a single diagnostic label, and that psychotherapy is a developmental healing and learning process that unfolds in the context of a meaningful relationship between patient and therapist (e.g., Wachtel, 2011). CIIT draws upon both perspectives while also addressing their limitations. It shares with the first perspective an emphasis on careful measurement, connection to nomothetic concepts, empirical rigor, and treatment specificity. It shares with the second perspective a holistic understanding of problems in living as contextualized by developmental processes, an emphasis on contextualized situations, and an understanding of the importance of dyadic processes in psychotherapy.

To illustrate, we next formulate a case and describe the contours of psychotherapy with the paranoid individual introduced previously. The integration of the more academic and applied

approaches can be seen in the diagnostic scheme articulated in Figure 4. Like the academic perspective, CIIT finds the diagnostic label of paranoid personality to be a useful summary of a host of behaviors and processes that characterize the individual's problems. Like the applied approach, however, it understands these behaviors and processes in terms of their patterning in interpersonal situations that recur in the person's life. It matters, from the perspective of CIIT, when and how different aspects of personality become dysregulated in interpersonal situations, because this patterning impacts the nature and timing of therapeutic interventions. CIIT also allows for deviations from prototypical patterns, which can be articulated in a manner that is specific and measurable using the interpersonal situation model.

In Figure 4, the paranoid process begins when the self (mis)perceives hostile vindictive (cold and dominant) behavior on the part of the other. This leads to affective dysregulation in the form of anxiety and anger, which touches upon motivational concerns involving self-protection. Believing that he/she must defend himself/herself, the paranoid person in this situation preemptively attacks with hostile and vindictive behavior, to avoid being manipulated or humiliated by the other. This provokes coldness from the other via normative processes of complementarity, which confirms the paranoid belief that the other was up to no good all along. This pattern recurs across interactions, reinforcing the paranoid personality organization. From an interpersonal perspective, the task is to break this pattern by providing the patient with novel experiences of an other (in the form of the therapist) who unhooks from the complementary pull and does not respond in predictable ways, while simultaneously augmenting this learning process with mentalization of the interpersonal processes that unfold between the therapist and patient with a specific emphasis on how they differ from other attachment relationships (Anchin & Pincus, 2010; Benjamin, 2003; Cain & Pincus, 2016; Kiesler, 1988).

But the psychopathology is often a clever and venerable foe. To apply an effective intervention with optimal timing, the therapist must be able to anticipate the different steps of this kind of process and intervene appropriately. The paranoid person, in particular, is unlikely to be explicit about his/her motives or inner experiences. An interpersonal formulation based on test data, patient narrative, and the experiences between patient and therapist provides the therapist with a critical advantage. Aspects of the interpersonal situation can be understood as a within-interaction temporal process that unfolds across multiple stages as shown in Figure 6. This process characterizes a range of interpersonal situations including psychotherapy, acting as a sort of melody to the paranoid person's song (Benjamin, 1996). In the first stage, the patient (self) feels anxious. Although the therapist (other) behaves in an overtly warm and submissive manner (e.g., "I hope I can be of some help to you; why don't you start by telling me what has been troubling you?"), the patient assumes that the therapist secretly intends to manipulate or harm him (as indicated by the parenthesized "other" in Figure 6). Sensing that their warmth is not being met in kind, the therapist may try to regain some control in the session by becoming more dominant (e.g., "It seems like we are off to a bad start. Trust is really important in therapy, so let me try to explain a little more about my approach to treatment."). This raises alarm bells for the paranoid patient, who sees this behavior as confirming his/her belief that the therapist will try to control him. The patient reacts angrily in the second stage; the therapist responds by withdrawing. The patient may become flummoxed at this point because it is unclear how his/her behavior led to the rupture. He/She would like to understand what has happened but their competence has been challenged, he/she feels a step behind and is not sure what to do. The therapist withdraws from the patient, which signals to him/her that the threat has been averted (Stage 3). The situation stabilizes as a complementary arrangement of cold dominance (patient)

with cold submissiveness (therapist), both in terms of overt behavior and the patient's perceptions. The patient's affect and self systems are regulated because the therapist is no longer a threat. This pattern recapitulates the same interpersonal situation that unfolds with his coworker on the job.

If this pattern recurs in therapy, as it does in the patient's life, the treatment will reinforce the patient's problems and has little chance of being helpful. As described above, the key to an interpersonal treatment is to engage the patient in new patterns so that social learning can occur which is augmented via mentalization of those patterns for the purpose of memory consolidation and generalization to new situations (Evans, 1996; Pincus & Cain, 2016). Figure 7 provides an alternative model of a more therapeutic process. In the first stage, the therapist is relatively neutral. This avoids, to some extent, the mistrust on the part of the patient which is engendered by warm behavior, which he will tend to automatically assume is affected and manipulative (note that given his coldness, this perception may be accurate, in which case neutrality would also be a more genuine interpersonal position for the therapist than offering excessive warmth and empathy). Although the hostile projection of cold dominance may be less intense, interpersonal patterns can be persistent and severe, so this initial stage can give way to anger in Stage 2. At this point we see a second key difference between Figures 6 and 7. Rather than challenge the anger by trying to (re)gain control of the situation, the therapist remains relatively neutral, and expresses some curiosity about "what all the shooting is about" (Sullivan, 1953b, p. 10). In time, this may eventually give way to a third stage in which the patient comes to see the therapist as someone who is interested in him, which enables an experience of being understood, as if his concerns about being manipulated by others have been taken seriously. With repetition and significant patience on the part of the therapist, operationalized as a stubborn preference for the

pattern Figure 7 over the pattern in Figure 6, this patterned technique may ultimately lead to a stable, complementary closeness as depicted in Stage 4, free from distortion and dysregulation.

It is important to emphasize that this approach is expected to be a prolonged process with many repetitions and non-linear success, particularly with patients exhibiting severe personality pathology or who have certain kinds of psychopathology, such as paranoia, that make engaging in therapeutic processes particularly challenging. It also must be understood that the interpersonal situation framework provides for many variations of paranoid and other melodies – the one described here was a useful and relatively straightforward example for expository purposes. The key point of this section is that the interpersonal situation provides for a framework with which to formulate psychopathology that captures the important aspects of both person and situations (Pincus et al., 2009, 2010), is connected to evidence-based and temporally/situationally sensitive assessment methods such as the ECR and CAID (Hopwood et al., 2016), has direct implications for psychotherapy research and practice (Altenstein et al., 2013; Hopwood et al., in press; Tracey, 1993), and provides a digestible system for training young clinicians (Blais & Hopwood, in press; Levendosky & Hopwood, in press).

### **Conclusions and Future Directions**

Interest in incorporating validated structural models of personality with the study of dynamical personality processes has increased dramatically in recent years (DeYoung, 2015; Fleeson & Jayawickreme, 2015; Read et al., 2010). Efforts to develop a vibrant science of situations will only accelerate and accentuate these efforts. In this context, it is worth highlighting that CIIT stands out for always having been a model of personality that integrates valid structure and contextualized dynamic processes. Indeed, CIIT places the situation as the central unit of personality (Pincus & Ansell, 2013). Answers to many of the questions situational

science is now asking are embedded in the basic tenets of the theory. What are the important features of the situation? What is the relative importance of objective as opposed to subjective construal of the situation? Additionally, CIIT as a theoretical framework holds importance for the range of personality expression, from the adaptive to the maladaptive, as well as treatment for clinical disorders. As we highlighted here, it is not only descriptive, but prescriptive when it comes to modifying behavior.

As we have emphasized in our review above, studying the contextual and dynamic features of interpersonal functioning at multiple levels of precision and temporal granularity has benefitted dramatically in recent years from the use of technological and statistical advances. This mirrors the field-wide trend toward collecting more complex data, intensively and repeatedly, across a variety of contexts. It appears that these advances are enabling, if not driving, theoretical integration in the field. We predict that this trend will continue for some time, and will lead to considerable advances in our understanding of personality, situations, and their interaction in ways that contribute to richer and more textured models of human behavior. In many respects CIIT has enjoyed a head start in this regard.

At the same time, there is considerable work left to be done at both the within- and between-situation levels of analysis. Analytically, being able to incorporate multiple dimensions of the individual and of the situation over many observations in a single statistical framework is no easy task. This is especially the case given remarkable heterogeneity in the way these variables associate within-person over time (e.g., Wright, Hallquist, et al., 2016). Continued development of methods of data acquisition and analysis are needed to make good on the promises of CIIT (Wright & Hopwood, 2016). In clinical settings, CIIT offers principled guidance for assessment and intervention, both as a freestanding approach, and as a buttress for

other symptom focused interventions (e.g., Dawood & Pincus, 2016; Hopwood et al., 2016). Yet there is considerable room for better understanding, systematizing, and possibly automating relevant methodologies that reflect a full instantiation of the dynamic model (e.g., ECR, CAID). These are challenging but exciting questions to work on, as they pertain to fleshing out and refining the interpersonal situation as a fully synthetic and widely applicable framework for integrating the structure and dynamics of persons and situations.

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Figure 2. The interpersonal situation.

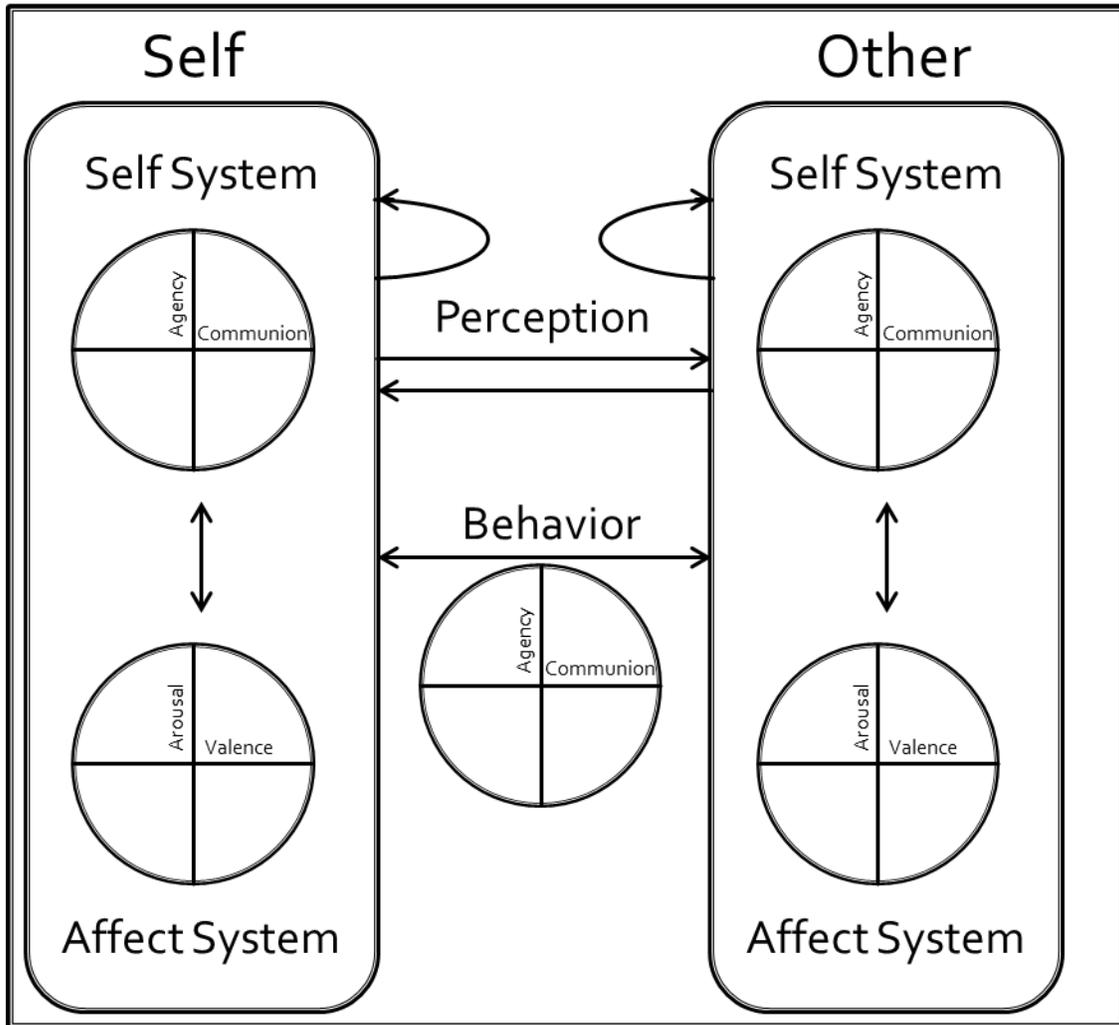


Figure 3. Regulation and perception in the interpersonal situation.

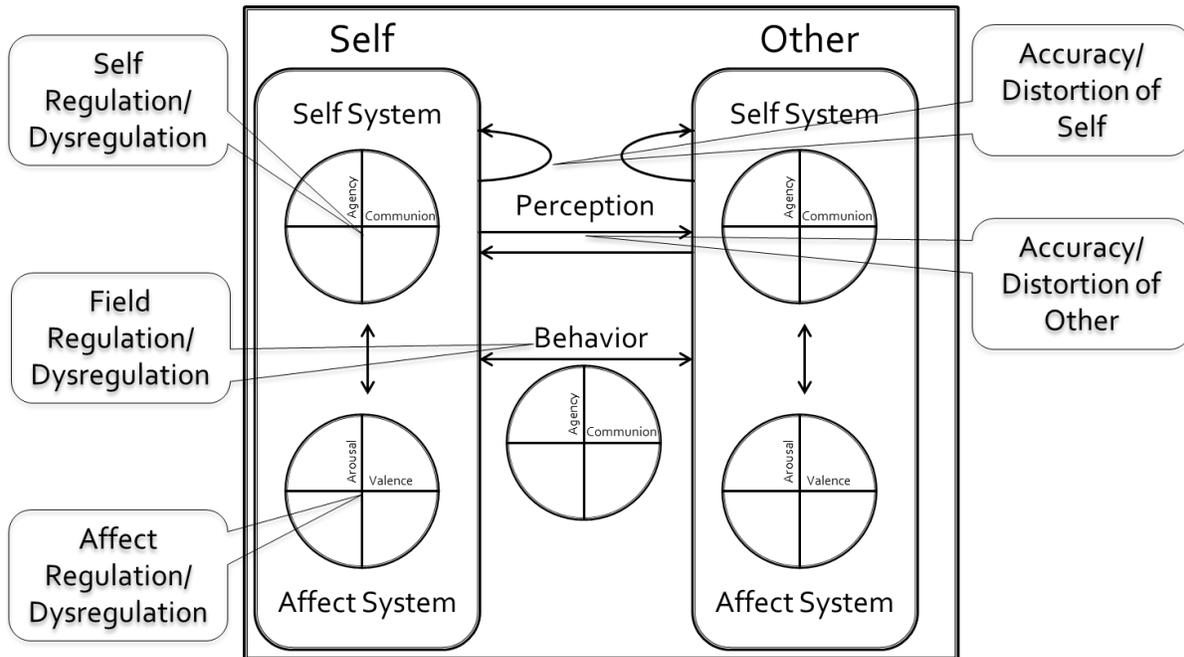


Figure 4. The interpersonal situation in paranoia.

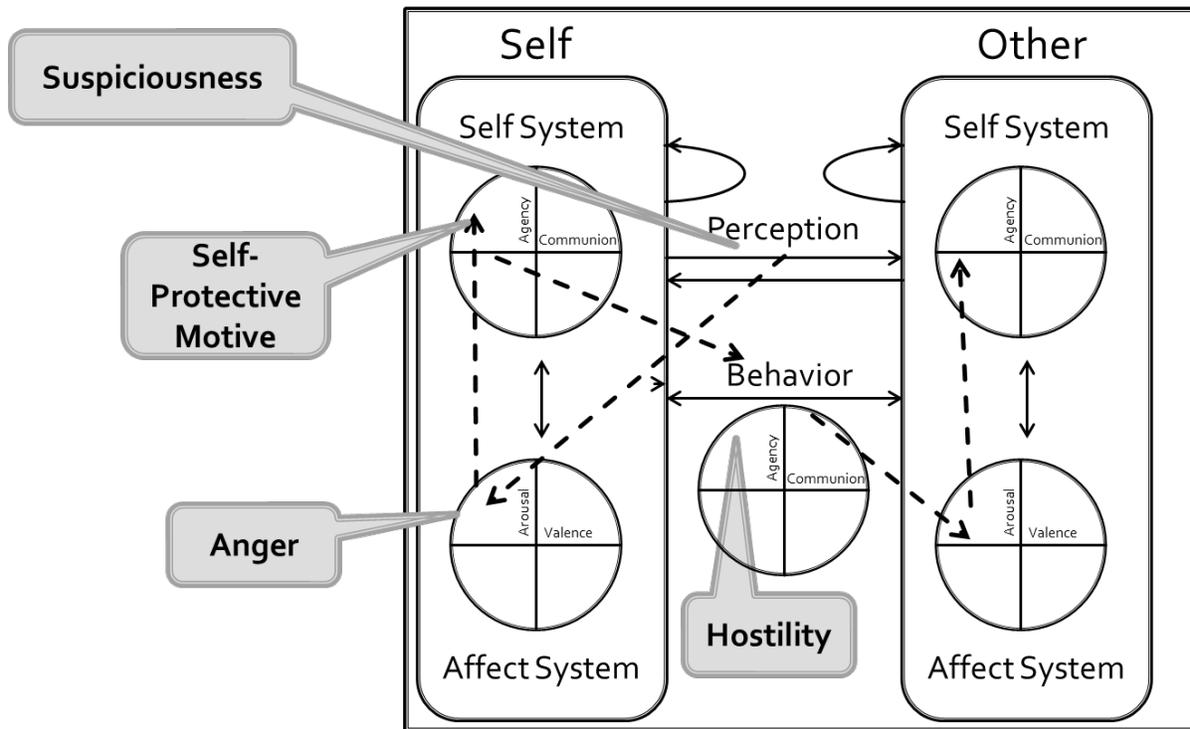


Figure 5. Interpersonal complementarity using Continuous Assessment of Interpersonal Dynamics (Communion/Affiliation—top; Agency/Dominance—bottom). From Pincus et al. (2014), *Multimethod assessment of interpersonal dynamics*. In C.J. Hopwood & R.F. Bornstein (Eds.), *Multimethod clinical assessment* (p. 67). New York: Guilford. Reprinted with permission of Guilford Press.

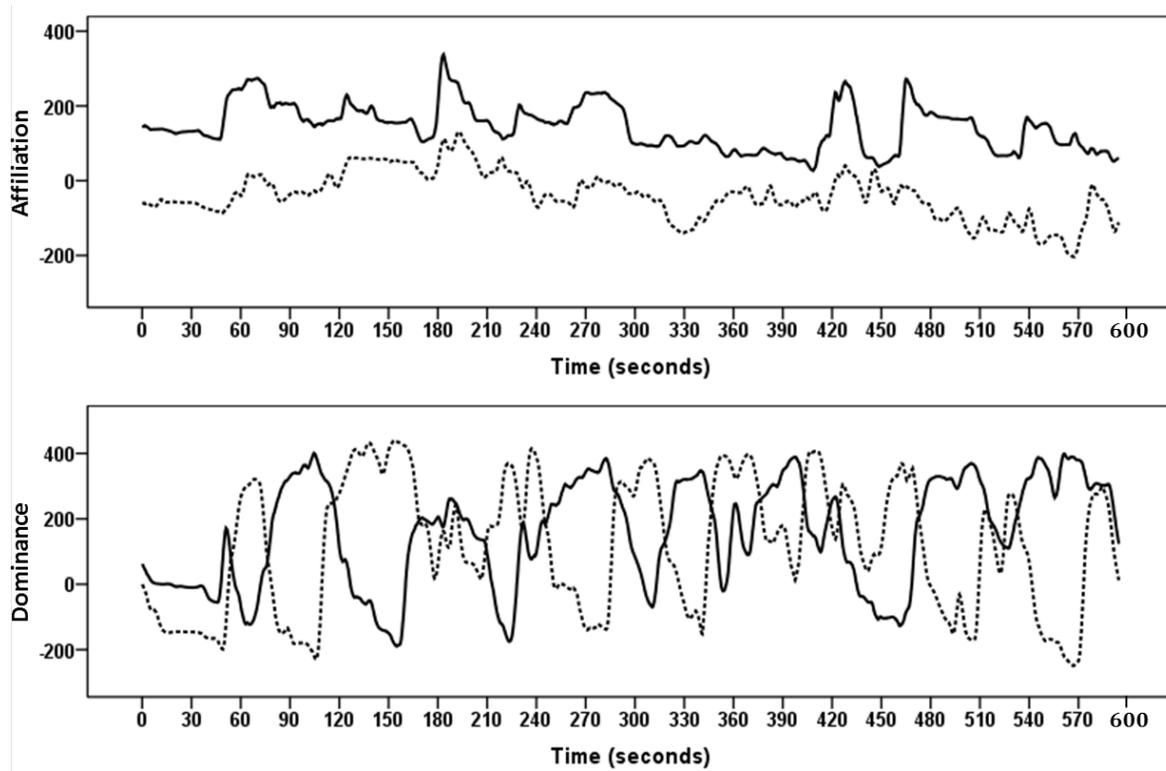
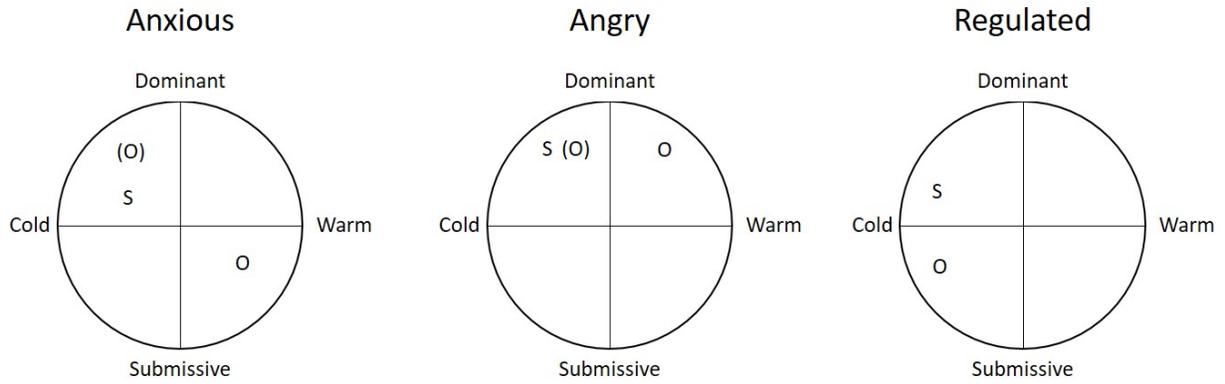
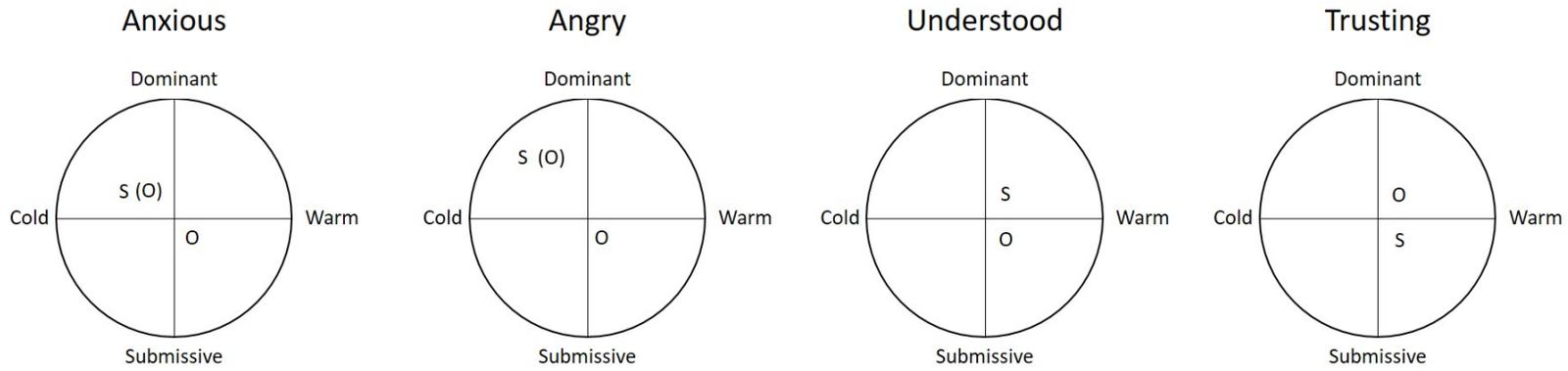


Figure 6. Three stages of a paranoid interpersonal process.



*Note.* S = Self (paranoid patient), O = Other, (O) = imagined other in the mind of the self.

Figure 7. Therapeutic process with a paranoid patient.



*Note.* S = Self (paranoid patient), O = Other, (O) = imagined other in the mind of the self.