

## Chapter 2

# Theories of Social Competence from the Top-Down to the Bottom-Up: A Case for Considering Foundational Human Needs

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Social competence is an oft-studied, little understood construct that nonetheless remains a hallmark of positive, healthy functioning across the life span. Social competence itself, however, remains a nebulous concept in the developmental literature, particularly in the peer relations field. Dodge (1985) pointed out that there are nearly as many definitions of social competence as there are researchers in the field. Likewise, Ladd (2005) outlined the century-long academic history of research on social competence and also noted its numerous conceptualizations.

Social competence has been viewed as a multifaceted construct involving social assertion, frequency of interaction, positive self-concept, social cognitive skills, popularity with peers, and the list goes on and on (Dodge, 1985). Whereas numerous studies outline the components, indices, and correlates of social competence, little headway has been made in generating a unified theory of social competence. In other words, much of our academic energy has been devoted to exploring a top-down approach to social competence in which we analyze and delineate the different manifestations of social competence (e.g., by identifying behaviors that we believe to be socially competent or those that are socially appealing or virtuous) and then search for common underpinnings. By instead adopting a bottom-up approach in which we examine underlying roots of competent behavior, we can form a more

cohesive picture of the construct and develop theories to predict and explain children's social behavior.

The purpose of this chapter is fourfold. First, we briefly review commonly employed approaches to social competence, especially as they relate to peer relationships and aggression. Second, we outline self-determination theory as a useful meta-theoretical lens through which we can examine children's social behavior. Third, we will introduce resource control theory (Hawley, 1999) as an evolutionary-based theory of social competence (i.e., a bottom-up approach) with which we will raise questions about the nature of social competence and provide explanations as to how a resource control theoretic perspective compares to traditional representations of social competence. Fourth, we will provide examples of how self-determination and resource control theoretic perspectives of social competence can relate to applied settings.

### Top-Down Approaches to Social Competence

By "top-down approaches to social competence," we mean specific practices in which researchers first identify behaviors and components of relationship functioning that they believe to be "socially competent" and then search for commonalities among their indices. Thus, from a top-down system, the nature of social competence itself refers to the similarities of the *a priori* defined indices. The

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practice of first defining outward manifestations of social competence before defining the actual construct creates difficulties in generating theories or root causes of social competence. Imagine, for example, social competence being portrayed as a tree. A top-down approach to social competence would involve gazing at the leaves of the tree (i.e., the manifestations of social competence) and attempting to aggregate them all together to find the common branch. As we will soon illustrate, the practice of analyzing "leaves" soon becomes a value-laden process in which virtuous and morally infused behaviors are deemed socially competent. Conversely, a bottom-up approach is one in which researchers focus on underlying roots of behaviors, thereby allowing multiple pathways to lead to competence (and not only those that involve behavioral profiles that conform to a top-down, value-laden approach). We will discuss bottom-up approaches to social competence in greater detail later.

### **Culturally Valued Attributes and Skills**

In 1973, a panel of child development experts met to explore the construct of "social competence" with the intention of establishing an operational definition of the previously amorphous concept (Anderson & Messick, 1974). After discussing everything from Plato to *Oliver Twist*, the committee was unable to offer an explicit definition of social competence. Instead, they noted the dynamic nature of competence (i.e., competence in one social context may not necessarily translate into competence in another context) and proposed 29 facets of social competence, ranging from personal maintenance and cleanliness to fine motor dexterity.

While an excellent starting point, one can see how quickly the facet-creation can break down into a simple listing of attributes that are pleasant or valued in group situations, or contribute to manageability in classroom settings. Many of these qualities reflect culturally specific "values," perhaps especially values characteristic of middle class public educational contexts. It is fairly easy to derive counter-examples in which various behaviors and orientations lead to effective, adaptive functioning in harsh, deprived urban environments

or chaotic family conditions, but yet are counted as "unskilled" or disruptive in other contexts. Notably, Ogbu (1981), an acclaimed anthropologist, described the "competent bias" inherent to models that reflect a certain moral righteousness as a strategy that might not necessarily result in achieving competence in different cultures or contexts. In this way, skills-based models of social competence conform to what Kohlberg and Mayer (1972) refer to as "bag of virtues" models of social competence, an umbrella term meant to signify a cluster of ideals. Anderson and Messick (1974) also refer to these models as "Boy Scout" or "Sunday School" approaches. Social competence then comes to be defined by such ideals and as such largely reflects positive, if not romantic, standards.

### **Peer Regard Approaches**

One way to embody culturally valued skills and attributes without actually listing the attributes is to measure one's social competence by one's social success, or the extent to which one is positively received in one's social context. To this end, acceptance by peers has long been identified as a healthy developmental and affiliative goal (Berndt & Savin-Williams, 1993; Parker & Asher, 1987). Historically, social status has been analyzed from two discrete research traditions and therefore yielded two distinct measures of status. Research from the first tradition involves directly asking children and adolescents about their social preferences (i.e., liking). Thus, the construct of *group acceptance* (or social preference) represents the variability among children in the extent to which individuals are well-liked by a wide range of their peers. Interest in social preference has been driven partly by assumptions that adaptive membership in significant peer groups is important to an individual's social (Parker & Gottman, 1989), emotional (Coleman, 1961), and identity development (Kroger, 2003; Newman & Newman, 2001; Vandell & Hembree, 1994). This link is presumed to exist partly because humans have a universal and evolutionary-based need to belong (Baumeister & Leary, 1995; see also Adler, 1924; Maslow, 1971, Sullivan, 1953) and peer groups meet this need to belong, at least after early

childhood and into adolescence (Aseltine, 1995; Coleman, 1961). In addition, acceptance by a peer group also provides opportunities for interpersonal communication and social skills development, outlets for physical activity, and protection from victimization. Accordingly, longitudinal assessments reveal that early peer acceptance predicts long-term well-being (Parker & Asher, 1987). On the other hand, individuals with low group acceptance lack influence in their social environments (Parkhurst & Hopmeyer, 1998) and may be vulnerable to victimization by more powerful peers.

The second research tradition involves asking children and adolescents who they believe is popular and unpopular. This method was borne from ethnographic studies of children and adolescents in their natural school environments (Adler & Adler, 1998; Eder, 1985). When children were asked to describe their popular peers, their descriptions did not conform to the traditional social preference view of status (Eder, 1985). Instead, middle school children and adolescents described the socially elite and powerful, many of whom were actually disliked by their peers (Adler & Adler, 1998; Eder, 1985). Therefore, individuals who are perceived to be popular by the group need not be well-liked (Cillessen & Mayeux, 2004; but see Hawley, Little, & Card, 2007). This line of research centers on the construct of "perceived popularity" (Parkhurst & Hopmeyer, 1998; Prinstein & Cillessen, 2003), a measure reflecting social prominence. Rather than emphasizing actual differences among group members in the extent to which they are well-liked by the peer group at large, social prominence reflects differences among individuals in the extent to which they have a reputation in the group for being a member of the popular elite, emulated, "cool," or socially central and powerful (Cillessen & Rose, 2005; Rodkin, Farmer, Pearl, & Van Acker, 2006).

Because of the power and distinction associated with a high positioning in the peer group, most adolescents, in particular, desire membership in the subgroups with the highest power, visibility, or influence in the larger peer group (Hawley, 1999; Parkhurst & Hopmeyer, 1998). Dishion, Patterson, and Griesler (1994) refer to this process as "shopping" for status. The practice of seeking out high status peers begins long before adolescence, however. Even kindergarten age children are acutely

cognizant of the existing pecking order in their social environments and report feeling more anxiety associated with status and peer relations than with school entry and academic performance (Ladd, 1990; see also Hawley & Little, 1999 for power manifestation in the preschool years).

Though social prominence may be the most salient index of status for children and adolescents (Duncan, 2004), many peer relations researchers consider social preference and acceptance to be better indices of social competence because of the emphasis on affiliation over competition or deviance (Cairns & Cairns, 1994; Rose-Krasnor, 1997). Nonetheless, "agentic goals" such as competition have long been recognized to reflect an underlying human need, presumably the satisfaction of which would itself be reflected in social competence. This is a point to which we will turn next.

### ***Effective Goal Attainment and Balancing the Self and Other***

Several developmental approaches to social competence recognize that children have differing goals, and meeting these goals in the social group gives rise to transactional challenges in the social group. Rose-Krasnor's (1997) "Social Competence Prism" hierarchically organizes several facets of social competence (social skills, sociometric status, relationships, and functional outcomes) by broadly defining competence as "effectiveness in interaction" with explicit consideration of children's motivations and goals in the social arena. Goal-oriented approaches suggest that one is effective to the degree that one successfully balances the goals of self and other (Bost, Vaughn, Washington, Cielinski, & Bradbard, 1998; Rubin & Rose-Krasnor, 1992; Weinstein, 1969). These models consider the importance of the self in that they incorporate aspects of social functioning (such as perspective taking and conflict negotiation) in judging effectiveness in interaction. In effect, according to these models, goals related to the self are important to the extent that individuals are not subordinate to the group. However, by these models, social dominance is also an inappropriate individual goal; social preference, that is, being liked by

one's peer group is a valued social goal but striving to be socially elite or emulated is not. Though these models consider the role of the self, they still maintain that group cohesion and affiliation remain the primary criteria for evaluation. In other words, according to these goal-oriented approaches, subordination is undesirable, but dominance is inappropriate. To our way of thinking, simply cataloging "positive" self-oriented goals that children may have (e.g., to stop a teasing peer) contributes little more than top-down approaches that involve listing "value-laden" skills. Moreover, because of their foci on values and group cohesion, all of these perspectives rule out aggression as an appropriate or effective method of goal attainment. Aligning aggression with maladaptation may or may not be an appropriate assumption.

### **Aggression**

Within the psychological literature (e.g., Coie & Dodge, 1998), researchers consider aggressive acts as those intended to hurt a target. For the greater part of the 20th century, aggression was considered to manifest exclusively in direct, physical forms (Coie & Dodge, 1998). Further, physically and verbally aggressive behaviors were more consistent with the goals of physical dominance and instrumentality, both typically regarded as "male goals" (Block, 1983). As a result, males were considered to be more aggressive than females (Maccoby & Jacklin, 1980). More recently, researchers have begun investigating alternative, more indirect, forms of aggression which are more inclusive to female perpetrators (Crick & Grotpeter, 1995; Galen & Underwood, 1997; Lagerspetz, Björkqvist, & Peltonen, 1988). Researchers have identified this alternative form of aggression as relational (Crick & Grotpeter, 1995) or social aggression (Galen & Underwood, 1997). Together, these forms appear to be more consistent with relational goals and social interactions than with physical dominance (Crick & Grotpeter, 1995; but see Hawley, Little, & Card, 2008). The alternative forms of aggression, though they maintain slightly dissimilar definitions, share a common behavioral thread; they each involve behaviors such as excluding, gossiping, and sabotaging relationships.

Regardless of the form that aggression takes (i.e., physical, relational), aggression is nearly unilaterally considered to be an index of social incompetence, possibly because aggression is presumably associated with peer rejection, a condition that is antithetical to acceptance (Coie & Dodge, 1998; Newcomb, Bukowski, & Pattee, 1993). Moreover, researchers have identified associations between aggression and long-term negative developmental outcomes (Brook & Newcomb, 1995; Coie & Dodge, 1983), lack of certain skills (perspective taking, empathy), and positive personality traits (e.g., agreeableness). As a result of these assumed relationships, aggression has been viewed as immoral, evil and, thus, antithetical to the "virtuous character" depicted through the top-down skills approach.

More recently, however, researchers have questioned this straightforward unilateral approach to aggression (see Bukowski, 2003; Smith, 2007; Vaughn & Santos, 2007). As a result, in addition to the different *forms* of aggression (e.g., physical or relational), researchers have begun investigating different *functions* of aggression (Little, Jones, Henrich, & Hawley, 2003). Generally speaking, reactive aggression has been conceptualized as a relatively uninhibited response to provocation whereas instrumental aggression has been described as somewhat more thoughtful, planned out, and self-serving. Both forms of aggression can manifest through these functions; in other words, both relational and physical aggression can be reactive or instrumental. Little, Jones and colleagues (2003) discovered that different functions of aggression are differentially associated with negative outcomes. For example, reactive aggression, regardless of form, was positively associated with self- and other-rated hostility and frustration intolerance, whereas instrumental aggression shared only a weak negative relationship or no relationship at all with the same outcomes. As such, Little, Jones et al. (2003) have suggested that, because instrumental aggression requires a certain degree of social skill and control, it may be more indicative of social competence than reactive aggression.

The idea that instrumental and reactive functions of aggression have differing social consequences may address a puzzle that has been evident to developmentalists throughout the

20th century. Namely, how can a behavior with ill social and personal repercussions be adaptive in an evolutionary sense? The answer may partially lie in the fact that the consequences to instrumental aggression may not be as negative to all as we are wont to believe. To help solve this paradox we turn our attention to basic and fundamental human needs as addressed by self-determination theory, with its deep roots in human motivational systems.

### ***SDT: Theory Building from the Bottom Up***

Self-determination theory (SDT; Deci & Ryan, 2000) is an organismic evolutionary-based meta-theoretical perspective of adaptive functioning (e.g., healthy development, coherent sense of self, well-being). Due to its focus on the organism and its basic needs and need fulfillment, SDT allows us to consider more explicitly the primary role of self-interest in adaptive human functioning (versus the traditional perspectives outlined above that seem to place higher premium on other-interest in terms of harmonious group functioning). As its basic premise, SDT recognizes that humans universally have three innate needs: competence, autonomy, and relatedness (Ryan, Kuhl, & Deci, 1997).<sup>1</sup> Different means or methods are employed to meet these needs based on context and culture. Further, the different means and methods that individuals use can be either intrinsically (from within) or extrinsically (externally controlled) motivated to varying degrees. Each will be taken in turn.

#### ***Innate Needs***

Self-determination theory (e.g., Deci & Ryan, 2000) adopts the perspective of innate psychological needs from the drive and need theory traditions (e.g., Hull, 1943; Murray, 1938). Autonomy, the first of the three identified needs, refers to the degree to

which behaviors are perceived to be caused by the self versus directed by others (deCharms, 1968; Deci, 1980). Here the autonomous organism is self-directed and feels free from external force or coercion. Competence needs, derived from White's (1959) *effectance motivation*, refer to the motivation for successful and proficient interactions with the environment. The need for competence is centered on skills, action, and the ability to master the environment (Elliot, McGregor, & Thrash, 2002). Last, satisfaction of relatedness needs means one feels connected to others (Baumeister & Leary, 1995; Bowlby, 1988; Ryan, 1993).

Greater need satisfaction pursued autonomously leads to better mental health, more positive and intimate relationships, enhanced personal agency, well-being, and optimal functioning (Ryan & Deci, 2000a; Patrick, Knee, Canevello, & Lonsbary, 2007; Ryan, Deci, & Grolnick, 1995). Inadequate need fulfillment can lead to significant deficits in psychosocial functioning. For example, environments that do not promote autonomy (e.g., controlling, chaotic, punishing, or neglecting) may contribute to anxiety, alienation, inner conflict, and depression. Additionally, the nonautonomous individual is more likely to experience ill-being and, at the extreme, psychopathology such as obsessive-compulsive disorder, depression, eating disorders, and personality disorders (Ryan et al., 1995). In our conceptualization of social competence, we believe that the socially competent individual will have satisfied or met all three of these needs within the context of social interactions (see also Buhrmester, 1996).

#### ***Intrinsic vs. Extrinsic Motivation***

According to SDT, individuals are differentially driven to achieve their needs or goals. To this end, goals are optimally pursued when driven by intrinsic motives (energized by personal interests and internalized values). External inducement or control can undermine pleasurable goal pursuit and concomitant positive outcomes (Frodi, Bridges, & Grolnick, 1985). More specifically, extrinsically motivated behaviors are externally directed (e.g., forced; out of the organism's direct control; Ryan & Deci, 2000a). As a result,

<sup>1</sup> SDT is not the only perspective to recognize the tension between agentic and communal needs (see also Adler, 1924; Bakan, 1966; Freud, 1930/1964; Maslow, 1971).

individuals who are extrinsically motivated experience less need satisfaction, diminished well-being and personal agency, and later maladaptation (e.g., Kasser & Ryan, 2001; Sheldon & Kasser, 1998). For example, externally controlled individuals may experience difficulties integrating and internalizing behavioral social values and norms. We will return to this point later.

Conversely, psychological health and performance are fostered by behaviors that are intrinsically motivated (Deci & Ryan, 2000; Ryan & Deci, 2000a; Sheldon & Kasser, 1998). The healthiest children are those who are inherently motivated to seek out new challenges, new situations, and to energetically explore their environments. Social contextual events such as providing challenges and competence promoting feedback will facilitate intrinsic motivated behaviors and goals (Deci & Ryan, 2000; Ryan & Deci, 2000a). Promoting intrinsic motivation while also reducing external motivation may be construed as one of the greatest challenges of modern educational environments (Ryan & Brown, 2005).

### ***SDT and Attachment Theory***

Self-determination theory (SDT) may yet be relatively foreign to developmentalists and clinicians. In contrast, attachment theory is well known and often applied in these domains. Although these different theoretical traditions reside in different literatures, they share several points of contact relevant for our present purposes. Namely, Bowlby and Ainsworth construed the *secure base* as allowing the child to explore in ever-widening circles until he or she internalizes the secure base functions of the caregivers in the form of schemas and attachment working models (see Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1980, 1988). These working models underlie confidence and autonomy. Accordingly, securely attached children become increasingly efficacious individuals who believe that (a) they are lovable and worthy of support, (b) they are self-directed, and (c) the world is a safe and predictable place where goals and material resources can be readily attained (Ainsworth et al., 1978;

Bartholomew & Horowitz, 1991; Bowlby, 1969/1980; Brennan, Clark, & Shaver, 1998). In this sense, secure attachments lay the foundation for meeting one's relatedness, autonomy, and competence needs. Indeed, La Guardia, Ryan, Couchman, and Deci (2000) investigated the relations among attachment, need satisfaction, and well-being and discovered that secure attachment satisfies all three basic needs.

As a biologically based theory, attachment theory, like SDT, is less likely to define adaptive functioning in terms of what is good for others but rather focuses primary attention on the organism actively coping with environmental inputs to maximize need satisfaction. As such, SDT and attachment theory can be construed as laying the foundations for bottom-up approaches to social competence.

### **A Bottom-Up Approach to Social Competence**

As introduced earlier, bottom-up approaches to social competence (in contrast to top-down approaches) first consider the nature of the organism interacting in its environment. In essence, social competence refers to the ability of an individual to thrive in his or her social environment. SDT and attachment theory can both be considered bottom-up approaches because they address foundational, innate human needs as the primary drive for competence and strategies for attaining these human needs (i.e., manifestations of competence) only secondarily. Bowlby first identified the functions of behaviors and then attended to the forms of those behaviors. For example, though gazing and tantrum throwing involve dissimilar actions and appearances (i.e., forms), they share the same function – both are means to gain attention from caretakers and thus to satisfy relatedness needs. A bottom-up approach might consider both crying and gazing as effective strategies for satisfying needs. From a top-down approach, however, non-evolutionary researchers may only consider gazing to be an appropriate means of need satisfaction because it is the most pleasing method.

Both SDT and attachment theory provide useful insights into the basic foundations of human behavior and what ultimately drives it. In this sense, we feel we have the roots upon which a functional theory of social competence may be built. Until now, we have argued that the principal obstruction to developing a unified theory of social competence in the peer relations literature is that the definition of social competence is convoluted and in some senses atheoretical (competence is what is morally "good" or pleasant to others). With focus on such outward indices of "competence" such as friendship quality, popularity, social skills, and information processing, researchers risk becoming entangled in the proximate manifestations of social competence instead of exploring the foundations of competence. In contrast, a bottom-up approach strips social competence from a moral framework and instead explores competence as goal attainment, thereby considering multiple strategies as effective avenues to social competence.

Bukowski (2003), himself searching for the roots of competent behavior, explored the linguistic lineage of "*competence*" and discovered that it shares a common linguistic ancestry with "*compete*." More specifically, Bukowski (2003) suggested "that being competent means that one is able to compete in the company of others" (p. 394). This definition of competence aligns well with White's (1959) premise that competence refers to "an organism's capacity to interact effectively with its environment" (p. 297) which underlies the understandings of competence (needs) from both SDT and Attachment theoretic perspectives. That all of these views have biological roots is not coincidental. Evolutionarily oriented approaches tend to focus on adaptation to environments both ultimately and proximally. Thus, if we were to adopt an evolutionary theoretical perspective, we may do well to consider social competence to imply effective competition in social contexts. Whereas competition is typically considered to be less than socially desirable (though it seems to be represented in a softer form in "agency needs"; Buhrmester, 1996), it lies at the heart of resource control theory, an evolutionary perspective focusing on children's competitive strategies, competitive success, and consequent developmental outcomes (both social and personal).

## Resource Control Theory

Resource control theory (RCT; Hawley, 1999), like attachment theory, focuses first on individual adaptation to local circumstances, and group response as a secondary outcome of that adaptation process. *Resource control* in general refers to the extent to which individuals successfully access social, informational, or material resources. This definition includes access to and attention from high status others (social), objects denoting status (material), and valuable information regarding work, school projects, or events (informational; Hawley, 1999; Keltner, Gruenfeld, & Anderson, 2003).

*Resource control strategies.* According to resource control theory, there are two primary classes of strategy that can be employed to access resources. Coercive strategies are those represented well in the primate literature and include behaviors that are viewed negatively by others such as threats, aggression, and manipulation (i.e., instrumental aggression). Setting the present theory apart from other theories of social dominance (e.g., Bernstein, 1981) are prosocial strategies of resource control, or behaviors that access resources via socially acceptable means such as cooperation or reciprocation. These strategies are those that are viewed positively by the group because they are consistent with accepted norms of behavior and tend to build interpersonal bonds. In contrast, coercive strategies tend to be viewed negatively by others because they generally operate outside of accepted norms and they are assumed to break bonds with others. As we will explore later, this latter assumption may be an oversimplification and the use of coercive strategies under some conditions may actually enhance one's interpersonal reputation and interconnections within the social network.

There are several important consequences to defining resource control strategies in these ways. First, the theory implies that prosociality can well serve competition. Typically, prosociality is seen as other-oriented from most psychological perspectives. However, when evolution is invoked, discussions of prosociality often turn to the long-term benefit of interacting positively with others (such as long-term resource acquisition and predator defense). Second, if aggression is associated with

effective resource control, then, by extension, coercion can be associated with competence insofar as it leads to effective interaction with the material environment. Thus, in terms of White's (1959) effectance motivation, and Deci and Ryan's (2000) competence, both strategies may facilitate the satisfaction of competence needs.<sup>2</sup>

Third, resource control theory employs a person-centered, typological approach, in which instead of describing the relations between variables (i.e., via correlations and regressions; a variable-centered approach) we classify individuals into "types" depending on their relative employment of the two strategies. Assessment of the "types" differs by age or developmental level. In observational studies conducted with very young children (Hawley, 2002), for example, prosocial strategies included making suggestions, issuing polite requests, and offering unsolicited help. Coercive strategies involved taking, aggression, and insults. By the time children are in late elementary school, we can administer self-report measures. Questionnaire items for prosocial strategies include "I get what I want by reciprocating," "... by being nice," or "... promising friendship." Coercive strategies include, "I get what I want by taking," "... threatening," or "... bullying." For adolescents, we can use similar items for peer nomination (e.g., "Who gets what they want by...") and friendship inventories ("My friend gets what they want by..."). Teacher report is useful for all ages (Hawley, 2003a, 2003b).

On the basis of the relative degree of self-report endorsement or teacher- or peer-reported employment of the strategies, subgroups of individuals can be defined depending on their standing in the distributions of prosocial and coercive strategies divided into thirds: bistrategic controllers, by definition, are in the top third of both prosocial and coercive strategies, coercive controllers are in the top third of coercive strategies only, prosocial controllers are in the top third of prosocial strategies only, and noncontrollers are in the lowest third of both strategies. Typical controllers comprise the largest remaining group. Bistrategic controllers, regardless of the reporter (e.g., teacher report,

self-report, or peer nomination), are the most successful at resource control by far, followed by prosocial and coercive controllers, with the noncontrollers being the least successful. Thus, from this perspective, bistrategic controllers are considered to be of the highest social dominance status and noncontrollers the lowest by definition.

Explorations of the personal and social outcomes of the types have yielded informative patterns that in some ways have confronted a number of cherished ideals in psychology. First, prosocial controllers routinely display appealing characteristics such as intrinsic motivations for pursuing friendships (e.g., for joy and personal fulfillment; Hawley, Little, & Pasupathi, 2002), agreeableness, and social skills. Presumably as a consequence, they are well-liked by peers and enjoy intimate, high-quality friendships (Hawley et al., 2007). In the parlance of self-determination theory, they are highly effective at meeting their relatedness needs while demonstrating competent interaction with the material world. This pattern associated with the prosocial controllers comes as no surprise as it certainly matches patterns anticipated from most perspectives. Also not surprising, coercive controllers are aggressive, hostile, unskilled, and motivated by power and popularity (rather than intimacy; Hawley, 2003b; Hawley et al., 2002). Consequently, they maintain low-quality and conflictual friendships, thus undermining the optimal satisfaction of relatedness needs (Hawley et al., 2007). Taken together, prosocial and coercive controllers accurately illustrate most social competence perspectives that maintain that good things go together, as do negative.

More instructive to us, however, are the bistrategic controllers. As mentioned, they are by far the most successful at resource control. Indeed, they place the highest value on the material world of all the groups (Hawley, Shorey, & Alderman, in press). At the same time, their behavioral profile and reception from the social group confronts commonly held assumptions in developmental psychology such as the predominant belief that aggressive individuals should be unskilled and socially repellant (Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006). Like coercive controllers, bistrategics are aggressive, manipulative, and value power and popularity over intimacy. Yet, what sets them

<sup>2</sup> Though presumably Deci and Ryan would point out that aggression would heavily thwart relatedness needs. This point will be explored in more detail below.



starkly apart from coercive controllers is that they appear to have many of the skills of prosocial controllers; they have a relatively well-developed understanding of others, well-developed social skills, and a certain moral attunement (Hawley, 2003a, 2003b).

Where bistrategic resource controllers diverge from prosocial controllers is their self-professed high levels of overt (i.e., physical) and relational aggression (e.g., gossip). Nevertheless, our studies with preschoolers and adolescents have repeatedly shown that bistrategic controllers enjoy positive attention from others. When preschoolers nominate who they like (i.e., in sociometric procedures), bistrategic controllers garner among the most nominations (Hawley, 2003a). In adolescence, bistrategic controllers not only win "like nominations," but they also secure among the most "s/he is my best friend" nominations and are viewed as popular by others (Hawley et al., 2007; cf. Cillessen & Mayeux, 2004).

Further, the aggression of the bistrategic controller is neither subtle nor unobservable; their peers describe them as aggressive and their best friends report aggressive acts even within the relationship (Hawley et al., 2007). At the same time, bistrategic controllers appear to also enjoy reasonably high quality friendships. Bistrategic controllers and their friends report among the highest levels of fun, closeness, and companionship in their friendships relative to other resource control subtypes.<sup>3</sup>

Very nearly opposite in profile to the bistrategic is the noncontroller. Noncontrollers are among the least preferred social partners in the classroom (Hawley, 2003b). In middle school and high school they are at risk for rejection and victimization. The social response to these children cannot be accounted for by interpersonal aggression alone because they are among the least aggressive of all children. Overall, they lack agency (they do not interact effectively with the material world) and defer to others in play situations (Hawley & Little, 1999). They do not fully understand the perspectives and goals of others, and they lack the associated social skills necessary for

these tasks. These deficits are reflected in the quality of their friendships; noncontrollers' friendships, unlike bistratics' friendships, are low in closeness, fun, and companionship (Hawley et al., 2007).

### **RCT & Aggression**

What is the allure of this highly aggressive and powerful individual and why would a nonaggressive child be socially repellant? The magnetism of the bistrategic (and the opposite effect of the noncontroller) is not well explainable from predominant developmental psychopathology perspectives that hold aggression to be a clear risk factor for peer rejection and more (Coie & Dodge, 1998). In contrast to these theories, RCT predicts that the socially dominant individuals will hold social power and be socially central because of their evident mastery over the material world (i.e., competence). Social subordination, in contrast, is thought to be associated with high risk from this perspective (social centrality hypothesis; Hawley, 1999).

Perhaps the most startling implications of RCT are those related to aggression. From this perspective, aggression can be conceptualized as an adaptive strategy because it aids in resource acquisition (Hawley, 2007; Hawley, Johnson, Mize, & McNamara, 2007). Whereas developmentalists suggest that the overall frequency of children's displayed aggressive behaviors dampens over time (Brame, Nagin, & Tremblay, 2001), we find that coercion remains a measurable strategy for resource control across the life span (Hawley, 2002; Hawley et al., 2007; Hawley et al., in press; Little, Brauner, Jones, Nock, & Hawley, 2003). Smith (2007) notes that although aggressive behavior may be "socially undesirable," we should not confuse this with "socially incompetent" or "maladaptive." Taken together, these results support Hawley's (1999) claims that aggression need not lead to negative developmental outcomes but can be associated with positive outcomes for both males and females (Hawley et al., 2008). These findings suggest that aggression alone does not determine peer acceptance. Rather, a prosocial profile, whether displayed alone or in conjunction with a coercive profile, appears to be positively related to peer acceptance.

<sup>3</sup> This is in contrast to perspectives that speculate that aggressive popular youth experience deficits at the level of the relationship (e.g., Cillessen & Mayeux, 2004; Cillessen & Rose, 2005).

### ***RCT, Competence, Relatedness, and Autonomy***

If individuals wield this power and achieve superior material success (i.e. competence) in ways that evidently draw others to them, could they also satisfy their relatedness needs? This is an important and interesting question to which we do not know the answer. At this point in our explorations, bistrategic resource controllers do not appear to sacrifice social success in the same way that coercive controllers do, perhaps because coercive controllers are unable to effectively balance their negative behaviors with positive ones. In fact, bistrategics appear to have the greatest pool of possible friends from which to choose; when individuals select their best friends, many more individuals nominate bistrategics as best friends than bistrategics reciprocate (Hawley et al., 2007). At the same time, bistrategic controllers need not defer to others; on the contrary, others generally defer to them. In this sense, then, they enjoy a good deal of autonomy. In contrast, non-controllers are the least autonomous of all children because of their chronic deferral to others; in other words, their own goals are subordinated to the goals of others.

Overall, prosocial strategies better fulfill relatedness needs than coercive strategies alone (in terms of quantity and quality of friendships). From this perspective, it should not be surprising that both prosocial and bistrategic controllers enjoy rewarding personal relationships – they share a common prosocial profile. Bistrategic controllers also display strongly coercive strategies, suggesting that coerciveness (in conjunction with prosociality) is not repellant to all peers. Also, it could be argued that bistrategic controllers are the most autonomous; as the most effective competitors (i.e., highest in social dominant status), they are free to behave outside the will of another (Hawley, 2002). All others must defer to some degree to the will of high status others, a sure sign that autonomy has been undermined. Thus, from this perspective, optimal ontogenetic adaptation is achieved through successful competition by means of prosocial strategy employment alone or prosociality balanced by coercion. However, unlike some top-down approaches to social competence, this perspective does *not* suggest that

competence is defined by the level of group contentment (i.e., relationships with bistrategics are not without cost; Hawley et al., 2007). Thus, resource control theory and self-determination theory do not fit well with the “bag of virtues,” top-down approaches, but instead suggest that human behavior is incredibly complex, a central premise to evolutionary-based perspectives.

In summary, we wonder whether bistrategic resource control is consistent with our conceptualizations of social competence. Bistrategic controllers are socially central and maintain close (though conflictual) interpersonal relationships, suggesting that they are effectively balancing the needs of the self (i.e. getting ahead) with the needs of the group (i.e. getting along). Further, bistrategic resource controllers enjoy positive outcomes associated with the pursuit of relatedness, competence, and autonomy.

All of these standpoints, from both top-down and bottom-up perspectives, rely on environmental factors in terms of learning and available opportunities. Autonomy in the social domain, competence, and relatedness needs cannot be adequately achieved in neglecting and stifling environments. Successfully fostering needs satisfaction is a subject on which we focus next.

### ***Implications for Children's Social Development and Fostering Social Competence***

As discussed above, existing conceptualizations of social competence do not explicitly address the underlying biological needs that drive social behavior. Although some literature acknowledges the importance of social goals (e.g., seeking comfort or assistance; Brown, Odom, & Holcombe, 1996; Erdley & Asher, 1999), there may be additional important social goals to consider. For example, RCT suggests that competition affects children's social behavior in centrally important ways. RCT and SDT may therefore inform existing conceptualizations of social competence by addressing motivations underlying social behavior. Thus far, neither SDT nor RCT have been expressly applied

to models of social competence. Nevertheless, both of these theories may have important implications for clinicians, clinical researchers, and educators. Specifically, practitioners in child development fields should be aware that children's environment (e.g., school) can foster or thwart need fulfillment and thus affect children's developing social competence.

*Developing social competence in school.* According to SDT (and by extension, RCT), healthy social development is predicated on children's sense of relatedness, competence, and autonomy (Ryan & Deci, 2000b). Well-being and optimal effective functioning are also predicated on the fulfillment of these needs. Recent policies focused on high stakes standardized testing may inadvertently decrease the ability to satisfy these needs in both children and teachers, creating particularly nonnutritive environments for children's optimal social development.

First, teachers who are understandably focused on helping their students succeed on standardized tests (Barksdale-Ladd & Thomas, 2000) are less likely to devote time to fostering children's autonomy, competence, and relatedness needs by, for example, deemphasizing guidance for executing appropriate social behavior and providing adequate socialization opportunities (e.g., prosocial ways of coping with conflicts; Pelletier, Seguin-Levesque, & Legault, 2002). Moreover, teachers' own sense of autonomy (how and what they teach) may be undermined, which in turn can affect their personal sense of competence and well-being. Thus, the high stakes testing movement may well have trickle down effects to teachers with negative social implications for children.

Second, policies emphasizing standardized testing often lead to standardized curricula, thus restricting socialization opportunities that are ultimately responsible for the development of social competence. For example, placing emphasis on performance standards results in rewarding didactic methods of teaching (Wood, 2004) and discouraging learning through peer collaboration (Barksdale-Ladd & Thomas, 2000). In addition, the focus on academic standards has led to the elimination of "non-academic" classes such as art, drama, and music. These non-academic classes, however, provide children with a range of enriching social development opportunities; drama classes help children

develop their communication skills and improve social skills (Deasy, 2002) and art and music encourage children to express themselves in different ways than "academic" activities. Using art or music as a prosocial method of expressing oneself may improve children's relationships with other people by fostering perspective-taking and interpretative skills, essential skills for participating in healthy social interactions (Chandler, 1973). Furthermore, recess and gym, both essential outlets for children's physical and emotional energy and contexts for unstructured play where children can practice social skills, have been eliminated from some schools because they detract from performance standards.

Last, policies focused on testing may undermine children's perceptions of their own competence, particularly in the academic domain (Barksdale-Ladd & Thomas, 2000; Ryan & Brown, 2005), and poor performance may lead to further social difficulties (Roeser, Eccles, & Sameroff, 2000).

By turning our attention to high stakes testing, we wish only to point out the dangers of ignoring children's innate needs. Programs and interventions can have unintentional detrimental effects when the whole child is not considered. For example, what implications does RCT have for therapeutic interventions? If coercive behavior is not always harmful to the social well-being of the child (as in the case of bistrategic resource controllers), should we target the behavior of a bistrategic controller for intervention? Indeed, do these children even catch the attention of school personnel like the coercive controllers most assuredly do? These are difficult questions to answer, and we are not advocating implementing specific treatments or interventions but merely discussing the difficulty and complexity associated with taking the social goals of the child into consideration. We are in good company in voicing our apprehension regarding interventions; educators in the early 20th century have worried that policies centering on reducing aggressive behavior regardless of circumstances lead to the suppression of executive skills, particularly in girls (Wooley, 1925). These deep questions regarding the nature of social competence and the importance of individuals' social goals are often ignored in the developmental literature.

## Conclusion

Most peer relations researchers are prosocial purists, describing "bag of virtues" models in which individuals help, self-sacrifice, and cooperate their way to competence. According to RCT, though individuals can in fact help and cooperate their way to resource control, being a highly successful competitor means one is able to balance "getting along" with "getting ahead" (Hogan, 1982); in other words, many successful competitors, even if aggressive, can remain socially dominant while also maintaining intimate social relationships. These descriptions may conjure an unsettling resemblance to the unscrupulous Machiavellian, but even Machiavelli (1513/2003) described the necessity of rewarding citizens with celebrations and of maintaining favor with the people: "[I]t is necessary for a prince to have the friendship of the people; otherwise he has no remedy in times of adversity" (p. 43). Whereas prosocial behaviors such as throwing festivals are not necessarily devoid of manipulative objectives (i.e., they are not *altruistic*), they are not purely coercive or tyrannical either. Prosociality is indeed an effective strategy of resource control, but so too are coercion and aggression. Prosocial and coercive behaviors exhibit different outward manifestations (e.g., doing favors vs. taking by force) but share the same ultimate function (gaining resources). By stripping prosociality and coercion from a moral framework in which prosociality should always be encouraged and coercion always discouraged, we can now consider each tactic to be a viable method to gain resources and satisfy foundational human needs. Researchers and practitioners perhaps should not only evaluate the resulting outcomes in the group context but also the extent to which each strategy is successfully implemented on its own and in combination.

## References

- Adler, A. (1924). *The practice and theory of individual psychology*. Oxford, England: Harcourt, Brace.
- Adler, P. A., & Adler, P. (1998). *Peer power: Preadolescent culture and identity*. New Brunswick, NJ: Rutgers University Press.
- Ainsworth, M. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Oxford, England: Lawrence Erlbaum.
- Anderson, S., & Messick, S. (1974). Social competency in young children. *Developmental Psychology, 10*, 282-293.
- Aseltine, R. H. (1995). A reconsideration of parental and peer influences on adolescent deviance. *Journal of Health and Social Behavior, 36*(2), 103-121.
- Bakan, D. (1966). *The duality of human existence*. Boston: Beacon Press.
- Barksdale-Ladd, M. A., & Thomas, K. F. (2000). What's at stake in high-stakes testing: Teachers and parents speak out. *Journal of Teacher Education, 51*, 384-397.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*(2), 226-244.
- Baumeister, R., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497-529.
- Berndt, T. J., & Savin-Williams, R. C. (1993). Peer relations and friendships. In P. H. Tolan, & B. J. Cohler (Eds.), *Handbook of clinical research and practice with adolescents* (pp. 203-219). Oxford, England: John Wiley & Sons.
- Bernstein, I. S. (1981). Dominance: The baby and the bathwater. *Behavioral and Brain Sciences, 4*(3), 419-457.
- Block, J. H. (1983). Differential premises arising from differential socialization of the sexes: Some conjectures. *Child Development, 54*(6), 1335-1354.
- Bost, K. K., Vaughn, B. E., Washington, W. N., Cielinski, K. L., & Bradbard, M. R. (1998). Social competence, social support, and attachment: Demarcation of construct domains, measurement, and paths of influence for preschool children attending head start. *Child Development, 69*(1), 192-218.
- Bowlby, J. (1969/1980). *Attachment and loss*. New York, NY: Basic Books.
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. New York: Basic Books.
- Brame, B., Nagin, D. S., & Tremblay, R. E. (2001). Developmental trajectories of physical aggression from school entry to late adolescence. *Journal of Child Psychology and Psychiatry, 42*(4), 503-512.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson, & W. S. Rholes (Eds.), *Attachment theory and close relationships*. (pp. 46-76). New York, NY: Guilford Press.
- Brook, J. S., & Newcomb, M. D. (1995). Childhood aggression and unconventionality: Impact on later academic achievement, drug use, and workforce involvement. *Journal of Genetic Psychology, 156*(4), 393-410.
- Brown, W. H., Odom, S. L., & Holcombe, A. (1996). Observational assessment of young children's social behavior with peers. *Early Childhood Research Quarterly, 11*, 19-40.
- Buhrmester, D. (1996). Need fulfillment, interpersonal competence, and the developmental contexts of early adolescent friendship. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence*. (pp. 158-185). New York, NY, US: Cambridge University Press.

- Bukowski, W. M. (2003). What does it mean to say that aggressive children are competent or incompetent? *Merrill-Palmer Quarterly. Special Issue: Aggression and Adaptive Functioning: The Bright Side to Bad Behavior*, 49(3), 390-400.
- Cairns, R. B., & Cairns, B. D. (1994). *Lifelines and risks: Pathways of youth in our time*. New York, NY, US: Cambridge University Press.
- Chandler, M. J. (1973). Egocentrism and antisocial behavior: The assessment and training of social perspective-taking skills. *Developmental Psychology*, 9, 326-332.
- Cillessen, A. H. N., & Mayeux, L. (2004). From censure to reinforcement: Developmental changes in the association between aggression and social status. *Child Development*, 75(1), 147-163.
- Cillessen, A. H. N., & Rose, A. J. (2005). Understanding popularity in the peer system. *Current Directions in Psychological Science*, 14(2), 102-105.
- Coie, J. D., & Dodge, K. A. (1983). Continuities and changes in children's social status: A five-year longitudinal study. *Merrill-Palmer Quarterly*, 29(3), 261-282.
- Coie, J. D., & Dodge, K. A. (1998). Aggression and antisocial behavior. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology, social, emotional, and personality development*. (5th ed., Vol. 3, pp. 779-862). Hoboken, NJ: John Wiley & Sons Inc.
- Coleman, J. S. (1961). *The adolescent society: The social life of the teenager and its impact on education*. Oxford, England: Free Press of Glencoe.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development*, 66(3), 710-722.
- Deasy, R. J. (Ed.). (2002). *Critical links: Learning in the arts and student academic and social development* (Arts Education Partnership, Washington, DC). Washington, DC: Department of Education.
- deCharms, R. (1968). *Personal causation*. New York: Academic Press.
- Deci, E. L. (1980). *The psychology of self-determination*. Lexington, MA: Lexington Books.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227-268.
- Dishion, T. J., Patterson, G. R., & Griesler, P. C. (1994). Peer adaptations in the development of antisocial behavior: A confluence model. In L. R. Huesmann (Ed.), *Aggressive behavior: Current perspectives* (pp. 61-95). New York, NY, US: Plenum Press.
- Dodge, K. A. (1985). Facets of social interaction and the assessment of social competence in children. In B. Schneider, K. H. Rubin, & J. Ledingham (Eds.), *Children's peer relations: Issues in assessment and intervention* (pp. 3-22). New York: Springer-Verlag.
- Duncan, N. (2004). It's important to be nice, but it's nicer to be important: Girls, popularity and sexual competition. *Sex Education. Special Issue: Sex/Sexuality and Relationships Education Conference*, 4(2), 137-152.
- Eder, D. (1985). The cycle of popularity: Interpersonal relations among female adolescents. *Sociology of Education*, 58(3), 154-165.
- Elliot, A. J., McGregor, H. A., & Thrash, T. M. (2002). The need for competence. In E. Deci & R. Ryan (Eds.), *Handbook of self-determination theory* (pp. 361-387). Rochester, NY: University of Rochester Press.
- Erdley, C. A., & Asher, S. R. (1999). A social goals perspective on children's social competence. *Journal of Emotional and Behavioral Disorders*, 7, 156-167.
- Freud, S. (1930/1964). *Civilization and its discontents*. New York: W. W. Norton.
- Frodi, A., Bridges, L., & Grolnick, W. S. (1985). Correlates of mastery related behavior: A short-term longitudinal study of infants in their second year. *Child Development*, 56, 1291-1298.
- Galen, B. R., & Underwood, M. K. (1997). A developmental investigation of social aggression among children. *Developmental Psychology*, 33(4), 589-600.
- Hawley, P. H. (1999). The ontogenesis of social dominance: A strategy-based evolutionary perspective. *Developmental Review*, 19(1), 97-132.
- Hawley, P. H. (2002). Social dominance and prosocial and coercive strategies of resource control in preschoolers. *International Journal of Behavioral Development*, 26, 167-176.
- Hawley, P. H. (2003a). Strategies of control, aggression, and morality in preschoolers: An evolutionary perspective. *Journal of Experimental Child Psychology*, 85, 213-235.
- Hawley, P. H. (2003b). Prosocial and coercive configurations of resource control in early adolescence: A case for the well-adapted Machiavellian. *Merrill-Palmer Quarterly. Special Issue: Aggression and Adaptive Functioning: The Bright Side to Bad Behavior*, 49(3), 279-309.
- Hawley, P. H. (2007). Social dominance in childhood and adolescence: Why social competence and aggression may go hand in hand. In P. H. Hawley, T. D. Little, & P. C. Rodkin (Eds.), *Aggression and adaptation: The bright side to bad behavior* (pp. 1-29). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Hawley, P. H., Johnson, S. E., Mize, J. A., & McNamara, K. A. (2007). Physical attractiveness in preschoolers: Relationships with power, status, aggression and social skills. *Journal of School Psychology*, 45(5), 499-521.
- Hawley, P. H., & Little, T. D. (1999). On winning some and losing some: A social relations approach to social dominance in toddlers. *Merrill-Palmer Quarterly*, 45(2), 185-214.
- Hawley, P. H., Little, T. D., & Card, N. A. (2007). The allure of a mean friend: Relationship quality and processes of aggressive adolescents with prosocial skills. *International Journal of Behavioral Development*, 31(2), 170-180.
- Hawley, P. H., Little, T. D., & Card, N. A. (2008). The myth of the alpha male: A new look at dominance-related beliefs and behaviors among adolescent males and females. *International Journal of Behavioral Development*, 32(1), 76-88.
- Hawley, P. H., Little, T. D., & Pasupathi, M. (2002). Winning friends and influencing peers: Strategies of peer influence in late childhood. *International Journal of Behavioral Development*, 26(5), 466-474.
- Hawley, P. H., Shorey, H. S., & Alderman, P. M. Attachment correlates of resource control strategies: Possible origins of social dominance and interpersonal power differentials. *Journal of Social and Personal Relationships. The origins of social dominance and power: Perspectives from*

- resource control and attachment theories. Manuscript submitted for publication.
- Hogan, R. (1982). A socioanalytic theory of personality. *Nebraska Symposium on Motivation*, 30, 5-89.
- Hull, C. L. (1943). *Principles of behavior: An introduction to behavior theory*. New York: Appleton-Century-Crofts.
- Kasser, T., & Ryan, R. M. (2001). Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. In P. Schmuck & K. Sheldon (Eds.), *Life goals and well-being*. Gottingen: Hogrefe.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110, 265-284.
- Kohlberg, L., & Mayer, R. (1972). Development as the aim of education. *Harvard Educational Review*, 42, 449-496.
- Kroger, J. (2003). Identity development during adolescence. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 205-226). Malden, MA: Blackwell Publishing.
- La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology*, 79, 367-384.
- Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment? *Child Development*, 61(4), 1081-1100.
- Ladd, G. W. (2005). *Children's peer relations and social competence: A century of progress*. New Haven, CT: Yale University Press.
- Lagerspetz, K. M., Björkqvist, K., & Peltonen, T. (1988). Is indirect aggression typical of females? Gender differences in aggressiveness in 11- to 12-year-old children. *Aggressive Behavior*, 14(6), 403-414.
- Little, T. D., Brauner, J., Jones, S. M., Nock, M. K., & Hawley, P. H. (2003). Rethinking aggression: A typological examination of the functions of aggression. *Merrill-Palmer Quarterly. Special Issue: Aggression and Adaptive Functioning: The Bright Side to Bad Behavior*, 49(3), 343-369.
- Little, T. D., Jones, S. M., Henrich, C. C., & Hawley, P. H. (2003). Disentangling the "whys" from the "whats" of aggressive behaviour. *International Journal of Behavioral Development*, 27(2), 122-133.
- Maccoby, E. E., & Jacklin, C. N. (1980). Sex differences in aggression: A rejoinder and reprise. *Child Development*, 51(4), 964-980.
- Machiavelli, N. (1513/2003). *The prince and other writings*. New York: Barnes and Noble Classics.
- Maslow, A. H. (1971). *The farther reaches of human nature*. Oxford, England: Viking.
- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Newcomb, A. F., Bukowski, W. M., & Pattee, L. (1993). Children's peer relations: A meta-analytic review of popular, rejected, neglected, controversial, and average sociometric status. *Psychological Bulletin*, 113(1), 99-128.
- Newman, B. M., & Newman, P. R. (2001). Group identity and alienation: Giving the we its due. *Journal of Youth and Adolescence*, 30, 515-538.
- Ogbu, J. U. (1981). Origins of human competence: A cultural-ecological perspective. *Child Development*, 52, 413-429.
- Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin*, 102(3), 357-389.
- Parker, J. G., & Gottman, J. M. (1989). Social and emotional development in a relational context: Friendship interaction from early childhood to adolescence. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 95-131). Oxford, England: John Wiley & Sons.
- Parker, J. G., Rubin, K. H., Erath, S. A., Wojslawowicz, J. C., & Buskirk, A. A. (2006). Peer relationships, child development, and adjustment: A developmental psychopathology perspective. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Theory and methods* (2nd ed., Vol. 1, pp. 419-493). Hoboken, NJ: John Wiley & Sons Inc.
- Parkhurst, J. T., & Hopmeyer, A. (1998). Sociometric popularity and peer-perceived popularity: Two distinct dimensions of peer status. *Journal of Early Adolescence*, 18(2), 125-144.
- Patrick, H., Knee, C. R., Canevello, A., & Lonsbary, C. (2007). The role of need fulfillment in relationship functioning and well-being: A self-determination theory perspective. *Journal of Personality and Social Psychology*, 92(3), 434-457.
- Pelletier, L. G., Seguin-Levesque, C., & Legault, L. (2002). Pressure from above and pressure from below as determinants of teachers' motivation and teaching behaviors. *Journal of Educational Psychology*, 94, 186-196.
- Prinstein, M. J., & Cillessen, A. H. N. (2003). Forms and functions of adolescent peer aggression associated with high levels of peer status. *Merrill-Palmer Quarterly. Special Issue: Aggression and Adaptive Functioning: The Bright Side to Bad Behavior*, 49(3), 310-342.
- Rodkin, P. C., Farmer, T. W., Pearl, R., & Van Acker, R. (2006). They're cool: Social status and peer group supports for aggressive boys and girls. *Social Development*, 15(2), 175-204.
- Roeser, R. W., Eccles, J. S., & Sameroff, A. J. (2000). School as a context of early adolescents' academic and social-emotional development: A summary of research findings. *The Elementary School Journal*, 100, 443-472.
- Rose-Krasnor, L. (1997). The nature of social competence: A theoretical review. *Social Development*, 6, 111-135.
- Rubin, K. H., & Rose-Krasnor, L. (1992). Interpersonal problem solving and social competence in children. In V. B. Van Hasselt & M. Hersen (Eds.), *Handbook of social development: A lifespan perspective* (pp. 283-323). New York, NY: Plenum Press.
- Ryan, R. M. (1993). Agency and organization: Intrinsic motivation, autonomy and the self in psychological development. In J. Jacobs (Ed.), *Nebraska symposium on motivation: Developmental perspectives on motivation* (Vol. 40, pp. 1-56). Lincoln, NE: University of Nebraska Press. Rochester Press.
- Ryan, R. M., & Brown, K. W. (2005). Legislating competence: High-stakes testing policies and their relations with psychological theories and research. In A. J. Elliot & C. S.

- Dweck (Eds.), *Handbook of competence and motivation* (pp. 354–372). New York: The Guilford Press.
- Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54–67.
- Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Ryan, R. M., Deci, E. L., & Grolnick, W. S. (1995). Autonomy, relatedness, and the self: Their relation to development and psychopathology. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Theory and methods* (Vol. 1, pp. 618–655). New York: Wiley.
- Ryan, R. M., Kuhl, J., & Deci, E. L. (1997). Nature and autonomy: An organizational view on the social and neurobiological aspects of self-regulation in behavior and development. *Development and Psychopathology*, 9, 701–728.
- Sheldon, K. M., & Kasser, T. (1998). Pursuing personal goals: Skills enable progress, but not all progress is beneficial. *Personality and Social Psychology Bulletin*, 24, 1319–1331.
- Smith, P. K. (2007). Why has aggression been thought of as maladaptive? In P. H. Hawley, T. D. Little, & P. C. Rodkin (Eds.), *Aggression and adaptation: The bright side to bad behavior* (pp. 65–83). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. Oxford, England: Norton & Co.
- Vandell, D. L., & Hembree, S. E. (1994). Peer social status and friendship: Independent contributors to children's social and academic adjustment. *Merrill-Palmer Quarterly*, 40(4), 461–477.
- Vaughn, B. E., & Santos, A. J. (2007). An evolutionary/ecological account of aggressive behavior and trait aggression in human children and adolescents. In P. H. Hawley, T. D. Little, & P. C. Rodkin (Eds.), *Aggression and adaptation: The bright side to bad behavior* (pp. 31–63). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Weinstein, M. S. (1969). Achievement motivation and risk preference. *Journal of Personality and Social Psychology*, 13(2), 153–172.
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66, 297–333.
- Wood, G. (2004). A view from the field: NCLB's effects on classrooms and schools. In D. Meier & G. Wood (Eds.), *Many children left behind: How the No Child Left Behind act is damaging our children and our schools* (pp. 33–50). Boston: Beacon Press.
- Wooley, H. T. (1925). Agnes: A dominant personality in the making. *Pedagogical Seminary*, 32, 569–598.